



# **The Rocks**

**A novel by  
Frederick H. Morse**

# THE ROCKS

This novel is dedicated to my wife Judy J. Eriksen, for her loving support of any endeavor that I embark upon.

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We would very much appreciate receiving comments from readers.

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## PREFACE of THE ROCKS

- The novel is aimed at the full spectrum of readers, from the youthful to the elderly and both sexes.
- Historically accurate fiction (1853 - 1856). The daily lives of the characters are intertwined with the significant historical events of the times.
- It is the story of a 14 year old orphan boy who through honest hard work, ingenuity and the knowledge gained from extensive reading rises from poverty to become an entrepreneur within a span of three years.
- He starts out by performing entertaining scientific feats that the average person would think impossible and earns money thereby. These are described and explained in dialogue form and is essentially popular science to the reader.
- He purchases a property which is known locally as "The Rocks" that is an ancient riverbed strewn with massive boulders and a multitude of smaller stones. It appears to be an absolutely worthless property in south-eastern New Hampshire.
- He saves five orphans from the streets and together they turn that wasteland to great profit in a number of interesting and unexpected ways that reflects actual life and technology in the 1800's. These are described and explained in dialogue form and are essentially popular science/nature. Also, it is every person's dream to take something that appears worthless and turn it into something of value and I believe that a tale of ingenuity in pursuit of that achievement will enthrall readers.
- The characters include 6 orphan teenagers, the mayor, sheriff, minister, editor, doctor, young girlfriends, murderers, farmers, craftsmen, several women, escaped slave, hangman and others.
- The story never goes slack and to maintain reader interest it includes components of adversity, achievement, humor, murder, young love, popular science, nature, danger, adventure, pre-Civil War sentiment, narrow escapes, slavery, the underground railroad, ties to real historical events, and the lifestyles of the 1800's. It is written in a manner that causes the reader to always wonder what will happen next.
- The ending is suspenseful.

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## Chapter 1

On Wednesday, January 5, 1853 the twelve-hour workday at the railroad company's train barn ended at six o'clock. As the laborers left for the evening the young lad at the blacksmith forge set down his hammer and tongs, wiped the sweat from his face and flopped onto a wooden bench. He planned to remain in the warm workplace and read for several hours as the forge coals slowly burned to ash. Olin Collins was a fourteen year-old who was six feet tall, lean of structure, blue eyed, light complexioned and possessed of a full head of straight ginger colored hair.

He always had a book near at hand and this evening it was "Uncle Tom's Cabin; or Life Among the Lowly". It had been first published on March 20, 1852 and had immediately provoked strong reactions from two opposing groups. The slaveholders had banned and burned it. The abolitionists clasped Harriet Beecher Stowe's novel to their breasts and thanked God that someone had finally revealed to all the horrors of bondage. Just as Olin opened the book and began reading Mr. Martinmon, the middle-aged railroad foreman entered the huge building where entire locomotives awaited repairs.

"You either always have your nose in the forge or in a book," Martinmon joked. "What are you reading now?"

"Uncle Tom's Cabin," Olin answered.

Martinmon's face reddened. "Are you crazy? There are some that would burn this building to the ground if they thought it would also turn to ashes a copy of that book! Close it and take it with you when you leave. Why do you have to be reading all the time?"

"I love reading," Olin smiled. "As much as you love your supper judging from your stomach."

"Don't get wise with me," Martinmon cautioned Olin. "If you weren't an orphan I would have your father thrash you in the woodshed. Mind you, I might do it myself. And also, the townsmen are impatient to see another one of your demonstrations of magic. Put away that book and think about things that bring in hard cold cash. Let the slaves take care of themselves."

Olin was annoyed but remained fairly respectful towards the man. "I don't put on magic shows. I show the effects of nature's laws and to many people they appear magical. Now sir, I ask that you let me stay warm at the forge as I read."

"I should make you throw the book into the coals," Martinmon said as he turned to leave the train barn and allow Olin to read in peace.

The next day a surge of arctic air assaulted New England. During Thursday, January 6, 1853, it severely chilled the Town of Boston, Massachusetts that was forty-four miles to the south of the train barn. During the early evening the frigid wind whipped about the railroad station platform where passengers were assembling to board the train to Concord, New Hampshire. Those waiting passengers that could not gain entry into the small and crowded station house stood huddled on the open platform, shivering and stomping their feet to maintain circulation to their aching toes.

An elderly lady was apprehensive about the train trip. She leaned toward her

companion of a similar age and loudly whispered, "I know it's bad luck to take a train trip on a Sunday. But somehow I don't feel safe even today and it is only Thursday."

The other woman attempted to calm her. "Well, ministers want us in the pews on Sunday so that is why they ask heaven to make it unsafe to travel on that day. And of course the Good Lord is going to grant the wishes of preachers and priests before ever He listens to pleas from the likes of us. But look here. I have a rabbit's foot. So please my dear, take it to keep yourself safe."

The first woman moved away somewhat and shuddered slightly. "Oh, no. I don't believe in such things as that. Lucky charms and amulets are not for me. My father always warned me that being superstitious would bring bad luck." She was oblivious of the contradiction.

The second woman was herself beginning to have fears of the train ride. "We must be careful who we sit next to. Only last year thousands were killed by influenza. Some of these people might have a disease and I think that more than a few have nits."

The first woman cringed at the thought of the pestilence and diseased lice that might be about them. "You are scaring me. This past summer the newspapers reported that yellow fever killed more than eight thousand people in New Orleans. And they could only guess at the cause of the disease. Many suspect miasma; evil vapors that inflict illness and death when a person inhales them. If you see anyone that seems sick hold your breath while near them."

Disease was not the only potential problem that the passengers might encounter in close quarters. There were persons that lacked morals and some women worried that those might attempt to secure an uninvited erotic encounter. But not all abhorred such social intimacy. The men joked that maidens of marriageable age would actively "reconnoiter for bachelor prey" during the course of the cold, rough and otherwise boring journey.

Two well-attired pickpockets had remained on the open train station platform because if they were detected plying their craft in the close confines of the station house there might not be a ready means for escape. But there was a second reason for their choice of locations, which was that many of the passengers waiting outside had already unknowingly revealed to them in which pocket or place they kept their purse or poke, and soon many more would also do so. The thieves would later be able to extract the wealth with a minimum of probing and searching into their victims' thick winter garments.

A coffee vendor had set his brazier of glowing charcoal at the windward edge of the platform and when he cast several beans into the hot coals the aroma of roasting coffee was driven to the passengers' nostrils upon the cruelly frosty air. The response of the chilled people to the tantalizing smell was immediate and they surged towards the merchant in their urgent desire for something delicious and hot to relieve their aching discomfort from the winter weather. The steaming coffee was served up in small tin cups that the customers held tightly in their cold hands in order to warm their fingers as they sipped the hot brew. When the customers reached into their clothing to bring forth the coin to pay the merchant, the two pickpockets learned in what place each person kept their funds and they could also judge with some reasonableness the amount of

wealth carried by an individual. The two selected their prime targets but would only move to acquire dishonest gains at the most opportune time.

The train engineer and the fireman had remained warm by working up the coal fire under the steam boiler of the locomotive in preparation to departing the railroad station. The intense heat of the coal fire resulted in such a high value of steam pressure that it had to be periodically vented while the locomotive was stationary. This was in order to prevent a boiler explosion, a not uncommon event. It had only been in July 1852 that a boiler explosion on the steamboat "Henry Clay" in the Hudson River had taken the life of Nathaniel Hawthorne's beloved sister Louisa along with nearly a hundred other unfortunates.

The seriousness of what could happen if he didn't properly monitor and control the steam pressure caused the engineer to have thoughts of the afterlife, in either heaven or hell, and that led to thoughts of religion.

"Do you go to church, Harold?" the engineer asked the fireman.

"Yes, and yourself?"

"Indeed. Last Sunday I heard the preacher talking sternly to a young lad who had arrived late. The man of the cloth asked him the why of it."

"What did the lad answer?" asked the fireman.

The engineer answered, "He said that he had at first started to go out ice fishing as it was a fine morning for it. But then the lad's father wouldn't let him and sent him to church. That much pleased the preacher and he asked the lad if his good father had explained why the boy should go to church instead of fishing."

"Did the lad answer?"

"Yes," replied the engineer. "He said that his father told him that there was not enough bait for the two of them."

The fireman laughed and asked, "Have you heard the locomotive psalm?" When the engineer shook his head the fireman recited:

"I'm the engineer and he's the fireman, it's true  
At least it was so until the engine blew  
St. Peter's holy advice is truly sound  
Can't come in until all the pieces are found"

They both laughed at the macabre rhyme as other railroad men on the platform shivered in the cold while attending to their duties in order to prepare the train for its departure. Among them were the axle ringer and his trainee. In their work these two men stooped down along side of the passenger cars to gain access to the steel shafts that ran between the large cast iron wheels. Fifty two year old Lloyd Adept crouched and swung his hammer against each axle to rap and ring the thick metal cylinder and to listen for its desired resonant response tone. His much younger assistant, the lanky red-haired Charlie Proust, crouched next to him listening intently. "Is it a good one?" asked Charlie.

"Yes. Just listen to it," Lloyd responded as he once again rapped the steel axle with his hammer. Lloyd tilted his head slightly so that his right ear could catch the "sweet tone" from his hammer tap. The chill wind whipped at his salt and pepper hair, as it was always his habit to remove his railroad cap when he listened to a ring back.

"But how will I know a bad one?" whined Charlie. "All I have ever heard you ring these past two days is good ones. The company has given me the job to learn when an axle is cracked and you were to teach me how it sounds. How will I learn how a cracked axle sounds unless I hear one or two to know them by?"

Lloyd slowly rose to his full height of six feet and with light blue eyes looked Charlie in the face. "I am going to rap your noggin and then you will know what a bad one sounds like, you idiot. May Heaven help us if they are really going to entrust the safety of a train full of decent souls to someone like you. For two days I have taught you what a cracked axle sounds like and you have not understood it."

Charlie stepped back in apprehension at Lloyd's threat, not being quite sure if the man meant to carry out the action. "What are you talking about, I haven't heard a bad axle yet!"

Lloyd lowered the hammer and replied with subdued exasperation. "Exactly. I was teaching you that it does not sound like anything that you have yet heard. You damn fool, it will not sound like a good one." He turned away from Charlie and proceeded towards the axle of the next set of wheels. From the experience of many thousands of ringings of good axles Lloyd's ear could easily detect the existence of the slightest crack if it were present in any of the two and one half-inch diameter steel shafts. Expert wheel and axle ringers were valued employees needed by the railroad to assure safety. Ringing was an art form and it required the accumulation of years of experience listening to echoing tones within solid metal for a ringer to ultimately be entrusted with the safety of a train.

Lloyd Adept spoke again to Charlie. "In the granite quarries stone ringers have a lot of responsibility. When a massive block of granite is cut out for the purposes of constructing a monument it is the stone ringer's task to find any hidden flaws in the block. The cost in money can be great if months of labor are expended in truing up the block and grinding its faces smooth to only later discover a hidden defect in the process."

Charlie smiled. "Well then, that is fine. If ever the railroad goes out of business we can ring stone for a living."

Adept asked Charlie, "Do you know who was the greatest stone ringer in history?"

Charlie was amused by the question. "Are you saying that someone of our ilk was in history books?"

Adept answered, "Yes. The most famous and expert ringer known was Michelangelo Buonarroti. He selected his marble blocks at an Italian quarry and tested them prior to transport to his workshop. It would not do at all to spend two or three years in the sculpting of a large statue only to have an arm of it break off and crash to the ground due to the presence of a slight hidden flaw."

Charlie scoffed at the words. "Well, the arms fell off his Venus de Milo, didn't they now?"

"You're both ignorant and a fool," Adept declared. "Michelangelo did not carve that statue."

Lloyd Adept was dedicated to the safety of the train's patrons and would hold a passenger car, even an entire train, in the station for repairs or replacement if his ear



detected the slightest discrepancy in the ring tone of an axle. He was certain that his days and nights would be haunted to the end of his life if he ever allowed a derailment because of his oversight of a defect. As they walked alongside the last passenger car of the train Lloyd tried to explain something to Charlie. "There is such a thing as consonance in the sounds of metal axles when they are rung by a hammer. When a sound is consonant it is smooth and agreeable to the ear and that is the singing voice of a good axle. If a crack exists in the axle the overtones of the sound will not be in the correct ratio to the lowest frequency and the result will be dissonant, or disagreeable. If you hear consonant sounds often enough you will instantly know when you hear a dissonant sound."

"This sounds more like a music lesson than anything to do with train axles," Charlie said in a disgusted tone of voice.

"It is just about one and the same thing," Lloyd responded. "Listen closely to me Charlie, as I will explain this once and that's all. A piano and a violin can sound exactly the same note, but even if you had your eyes closed and could not see which had sounded the note your ears would quickly tell you if you had heard the piano or the violin. That is because the overtones of a piano and a violin are different. It is the same with a good axle and a cracked axle." Lloyd did not actually dislike Charlie but he was not yet certain that the man could develop the dedication to the trade that was necessary to assure the safety of the train's passengers.

At the next axle they stooped to the ringing position and as they did so Lloyd handed the hammer to Charlie. "Here, take it. When you rap the axle listen to the ring with your eyes shut. It somehow seems that the ring tone is clearer in the mind when the eyes are closed."

Charlie hefted the hammer to feel its weight. He was a little taken aback that Lloyd was going to actually let him use it and he now regretted his earlier complaints. A little. He reached under the coach and rapped the axle, listening for the sound with his eyes shut. As best he could determine it sounded like all of the previous axles. He reached a conclusion. "It is a good one."

"Are you sure?"

"Pretty sure."

"Pretty sure is not sure. Rap it again."

Charlie rapped the axle a second time and listened intently to the resultant sound. "Yes, it is a good one. It sounds just like all the others."

All of the train's other axles had rung true so Lloyd was satisfied. "Alright, that is all of them." The large cast iron train wheels were also prone to cracking in cold weather and those had been rung successfully some hours earlier so the train could now be safely released to the engineer's control. Lloyd stepped back from the last car to see if the engineer was awaiting his report and observed the man standing beside the engine and looking towards him. Lloyd Adept then performed the hand signal required by railroad regulations that indicated that all the axles were true and sound.

The engineer acknowledged the signal with a wave of his hand and then mounted to the control compartment of the locomotive. But he would not drive the train out of the station until he was assured that a very important person was safely aboard.

A short time later a hired horse driven coach stopped in the street in front of the station house and two men, a woman and a young boy disembarked from it. The passengers that were gathered on the platform somehow sensed that these were people of some importance and opened a path in the crowd at their approach. The men tipped their hats in a courteous manner to the on-lookers as they walked directly to the car that was the first behind the coal tender. Two porters trundled the baggage carts along behind them. There were murmurs of curiosity among the bystanders but none realized that the President Elect of The United States and his chief of staff had just passed among them. An entire car had been reserved for Franklin Pierce, his wife and their 11-year-old son Bernie, their third and only surviving child. Forty-eight year-old Franklin Pierce yearned for the quiet of their Hillsborough, New Hampshire home to give some thought to his inaugural address and also to concentrate upon the inflamed question of slavery.

With the dignitaries safely aboard the remaining passengers could be herded from the platform and crowded station house to board the other cars in order that the train could then depart for Concord. The two pickpockets moved forward with the impatient passengers and in the crush of the distracted people they nimbly extracted the purses that they had previously targeted. A short time later a man realized that his poke was missing and set up a cry of alarm. "Thief! There is a thief or pickpocket among us!"

A woman cried out as she pointed at another man. "I saw him touch you! Grab him! Search him!" As the crowd converged on the astonished and frightened man, grabbing him roughly and thrusting their probing hands into his garments, the pickpockets edged slowly to the back of the crowd. With the attention of the angry mob focused upon the supposed culprit they slipped away towards the street. Their clothing spoke of middle class status and blended well with the garb of the majority of the citizens walking in the area.

One of the pickpockets was gleeful. "Shirley, I got the poke of the big-bellied man that raised a cry and it felt heavy with gold coin as I passed it off to Gracie."

Shirley answered with a little excitement in her voice. "I tell you Helen, the moment was gone for me to pass my loot off to April when the crowd shoved in to get their hands on that man. Why did you point to him as being the crook? That crowd might do him some harm before they find out that he is innocent."

Helen scowled. "Not a bit did I like his looks as he reminded me of my worthless first husband."

Further up the pavement two teenage girls stood snuggled up in their coats against the cold as they waited at the corner of Essex and Martin Streets. One was the pretty blonde and blue-eyed Gracie. The other was the red-haired and green-eyed April. The women walked up to them and Helen asked the older of the two girls, "Well, Gracie, do you think that there is gold coin in it?"

The pretty fourteen-year-old lass smiled happily at her grandmother as she stood with her hands thrust into her warm wool muff. She shook the muff slightly up and down several times. "I am sure that there is from the feel of it. I will be so happy when you let me show you all that I have learned about picking pockets."

Helen smiled at the girls. "You two are a delight. As soon as we make the snatch

we can pass it off to you girls in case the law puts a grab on us. And no one would suspect two sweet darlings such as you. And yes, the next time we visit the train station Gracie, I will let you snatch a few valuables. But very carefully as we don't want anyone to suspect you of being pickpockets."

Gracie smiled happily. "I have been practicing at school. The teachers all suspect the boys, them not thinking that it might be a girl like me."

Helen frowned. "Gracie, keep your hands out of the boys pockets."

In the meantime back at the station it was some minutes before the crowd was quite through searching and abusing the hapless, innocent man and not finding the possessions of the others upon his person they finally released him. He was soon to learn that often the only thing that separates an honest person from a thief is a lack of opportunity. As he began to regain his composure and straighten his ruffled clothes he felt for his wallet and realized it had been filched during the crowd's search.

A ragamuffin boy of perhaps eight years of age approached a matron who was snuggled up inside a warm and beautiful fur coat and who wore a hat trimmed in glossy sable. With beseeching eyes he looked up at her face as he gently took her left hand in his own cold little paw.

"Oh please wonderful lady, oh please," he said in a pitiful and pleading voice. "I am so hungry and cold. A penny or two and I can buy some stale bread, as I have not eaten a thing today. Oh please, I am so hungry and cold." He shivered in the frigid air.

The appealing cherubic face of the boy aroused the woman's sympathy and his pleading eyes gazing up at her instilled a motherly feeling of pity in her heart. When she saw a shiver ripple down his lean lightly clothed frame she smilingly reassured him. "Of course, you poor boy." Turning towards her husband she instructed him. "Edwin, give the boy a few pennies." The man obediently began to rummage in his pockets for coins.

Upon hearing the woman's instructions to her husband, an angelic and happy smile flooded upon the ragamuffin's face much to the delight of the matron. He continued to clasp her warm hand and leaned a little forward to kiss it. As he waited for the man to find the coins he slowly turned her hand gently over so that the palm was upward. He then spat thick phlegm into it.

The woman took a step backwards in shock, horror and disgust, her hand outstretched so that the vile spit would not touch any other part of her body or clothes. Her husband Edwin stood dumbfounded by what had just transpired.

A second and older ragamuffin yelled at the small boy. "Albert! What have you done?" He kicked the culprit in the behind. As the younger boy fled from the train platform this boy pulled a piece of cloth out of his pocket. "Oh, generous madam, please let me wipe that off your hand. I don't know why he did such an awful thing."

The husband motioned to the boy that he should do so because he himself did want to have come into contact with phlegm that might carry lung disease. The distraught woman held her hand out with her face turned away in revulsion.

During the pretense of cleaning her hand the boy actually used the cloth to spread the mucus over her ring finger to lubricate it so that he could easily slip off her diamond solitaire band without her noticing. With the ring enveloped in the cloth he broke away and sprinted for the street to catch up with the younger boy and they easily

made their escape.

The victim's cries of "Thief! Thief!" had no other result than to cause all the boarding passengers to once again quickly reach for their wallets, purses and money belts to assure that they still possessed them. The man that had been roughly searched flinched in fear of a further accusation against him. The stationmaster had witnessed the entire proceedings out of the corner of his eye and was sure that the boys would later bring him quite a large diamond to be fenced to a buyer of stolen goods.

The unheated passenger coach where the Pierce family sat offered a buffer against the chill wind but it was devoid of any means to provide added warmth, not even the benefit of the body heat of the huddled masses in the other cars. However, there existed a method by which the elite and important passengers could be made somewhat more comfortable during their journey. Towards that end two workmen of superior strength emerged from the station house carrying a 260-pound block of Georgia soapstone upon a wooden plank, each of the men straining at his end of the plank against the weight. The soapstone block was one and a half feet long, a foot wide and a foot deep. It had been heated upon the coal-fired stove in the train depot and would serve for hours as a foot warmer during the otherwise freezing journey. Most homes of the day possessed at least one soapstone bed warmer but of much smaller size than the block that the men lugged. The heat content of the large soapstone would be approximately equal to that of one pound of burning coal, or twice that of the same weight of heated iron.

The first soapstone block was placed on the coach floor near the foot of the seat that Mrs. Pierce would occupy. When the block was in place she sat upon the bench seat and set her booted feet atop the hot stone. As the heat of it penetrated her boot soles a look of relief appeared upon her face and she graciously thanked the two workmen.

A second hot soapstone block that was placed in front of Bernie's seat. Both Pierce and his wife were extremely considerate towards Bernie and were ever concerned with his welfare. Much to their sadness Bernie's two siblings lay in their graves and this all the more made their remaining son the light of their lives. A short while later a third block had been placed in the compartment for the comfort of Franklin Pierce. As the workmen stepped down from the train the President Elect's Chief of Staff leaned out from the platform of the coach and signaled the stationmaster that the dignitaries were safely aboard. This meant that the train could then depart for Concord.

Within minutes after the train had left the station the clickecty-clack sound of the wheels over the track joints and the gentle swaying of his car provided a soothing effect to Franklin Pierce, which he much appreciated. He remembered well that it had taken 48 ballots before he had been nominated at the Democratic convention and that he had won the presidency by only a narrow margin of popular votes. And southerners who had appreciated his pro-slavery declarations during the campaign gave that edge to him.

He cast a copy of a runaway slave reward poster aside in disgust. He spoke to his chief of staff in a strong, angry voice. "That is disgusting, absolutely revolting. It is not right that these good men should be put into such a situation. We must do something to assist them." Pierce was full of ire at the situation. "That honest,

hardworking men have to pay a reward to have returned to them something that is rightfully theirs in the first place is criminal. It is an unjust burden. If it were their horses that had strayed then any honest person that might come across them would hold them for retrieval by the owner and ask not a cent of reward. Slaves are property as are horses and should be captured and returned just as benevolently. Perhaps the owner would justly be charged only the dollar or two for the feed of his animals or captured slaves." As the train rolled along upon the iron rails Pierce hunched up in his heavy cloth coat and pondered the possible actions that he could take as president to protect slave owners.

During the following hours the train moved steadily northwards towards the Town of Andover, Massachusetts, en route to Concord, New Hampshire. The bitter cold air of the January night whirled about the open locomotive cab as the train sped along the rails and whenever possible the engineer and fireman stood close to the fire door to benefit from its radiant warmth. For safety reasons it was necessary for the engineer to periodically view the tracks ahead to assure that they were clear of obstructions. To avoid suffering gusts of bitterly cold air in his face he used a small hand mirror that he pushed out into the frigid wind and then from the shelter of the cab he could observe the tracks ahead.

The fireman was impressed with the idea of it. "Why did you have a hand mirror in the cab? Had you been smart enough to think ahead about its good use in the winter wind?"

"I came upon the idea as a young man," responded the engineer. "Some years ago I had the mirror because at the end of my run I would arrive in Quincy and there I would court my young lady at her father's house. She is now my wife, but whenever I went to woo her I would be sure to look my handsomest, for her being quite pretty she had other suitors also. I had the mirror to assure that my hair was neatly combed at the end of my run when I removed my engineer's cap. However, one night I looked into the mirror and I saw the rough stubble of my dark beard that had grown that day since I had shaved before dawn. I had no manner in which to shave again and I was woefully aware that my love did not at all like scratchy beards."

The fireman was sympathetic. "What a shame. You're right that there is no washbowl and lather soap in a locomotive cab."

The engineer's tone of voice brightened. "But, I came upon an idea. I opened slightly the boiler pressure gauge drain valve here in the cab and got only so much water as needed to wet my whiskers. I then stuck my face out into that miserably cold wind. The temperature was so low that the water at once froze upon each and every one of my whiskers and this caused them all to become very brittle small black icicles. In less time than it takes a heifer to fart the force of the rushing wind due to the speed of the train and the howling gale snapped all of them off close to my skin, making my face as smooth as a baby's bottom."

The fireman roared with laughter at the absurdity of the story and still chuckling he entered the coal tender car. He used his shovel to maneuver the shiny jet-black lumps of anthracite fuel further forward in preparation to his return to the locomotive and the continued feeding of the engine's furnace. A sudden violent jolt to the tender caused

the fireman to slip down onto one knee and he looked towards the engineer apprehensively. The jolt had been less severe in the locomotive but the engineer throttled back the engine as a precaution as he listened and felt for any further abnormality of operation. They had just passed the street in Andover, Massachusetts and in the moments after the jolt the train seemed to be proceeding normally. The engineer throttled back up to speed in anticipation of a rising and curving embankment just ahead. As they entered the curve the left front end of the coal tender abruptly sank down into the tracks and wooden cross ties with a resounding crashing noise. The entire train was severely and erratically shaken and abruptly slowed.

Due to his forward momentum the fireman was catapulted out of the coal tender and back into the locomotive cab where he slid across the steel plate floor as it lacked any handhold to restrain his hurtling motion. He came to a violent stop up against the red-hot fire door. The smell of the burning flesh of his face and his screams of agony filled the air and greatly added to the consternation of the engineer who could not fathom what had happened or guess what would happen next.

Due to the tremendous twisting mechanical strain upon the locomotive the steam boiler pipes sheared and burst allowing huge clouds of hot water and vapor to be violently released into the night air with deafening hissing and eerily shrieking whistling noises, which added yet more horror to the nightmarish scene. The passenger cars piled up and derailed behind the crippled locomotive and the coal tender. As the wreckage of the train cars came to rest the screams of the dying, the injured and of the merely terrified echoed on the frigid night air and the animals of the forest turned their head and ears towards what had been at first unfathomable mechanical noises. They now related to the cries of pain as those are sounds that are universally recognized throughout the animal kingdom and they wondered which predator had taken which prey.

It was the fate of Franklin Pierce and his wife that once their overturned car finally scraped to a halt they discovered that they were only slightly injured in body. Their son Bernie had been killed instantly when his granite footstone crushed him.

It would be hours before the residents of Andover could tramp through the dark night and snow to reach the site of the wreck.

In the days following the train accident, railroad workers from surrounding areas had helped clear the wreckage at the derailment site. Among the laborers was Olin Collins, the fourteen year-old blacksmith from the train barn. He had come down from New Hampshire with five other railroad laborers to participate in the extensive track clearing effort. The wrecked locomotive had tipped onto its left side but in its sliding motion it had spun a quarter turn and come to rest partly across the railroad tracks. It was necessary to move the engine so that other trains could have safe passage. The damage to the locomotive had placed it beyond any hope of repair and once clear of the rails it would be left to rust away.

Heavy rope lines were attached to the wreckage and then they were run back through block and tackle systems that were anchored to stout oak trees about seventy feet distant from the tracks. Some fifty men grasped the free ends of the lines and upon the command of the recovery supervisor the laborers began hauling upon them. Inch by

slow inch the effort of the men transmitted through the mechanical advantage of the pulleys in the block and tackle systems began to cause the locomotive to move off the tracks.

As Olin pulled upon the stout ropes in unison with the others, images of the Egyptians slowly raising stone blocks by lever, pulleys and brute force to construct the pyramids wafted through his mind. He did not consider his experience at the recovery site to be work; instead he was enthralled by the mechanical engineering techniques employed to move massive metal objects with relative ease and was happy for the chance to be involved in the activity. It helped to rid his memory of what he had seen during the prior day's search of the area for the corpses of victims. Scavenging crows had been quick to the feast and their presence gave clues to the location of mangled body parts that had been scattered about in the snow.

The fireman had survived and was found nearly frozen to death in a snow bank as his first urge had been to get away from the residual fire in the engine and to press his burnt face into the cold snow. He had no way to foresee it but his facial scars would gain him entry into the lore of railroading history. He would become known as the fireman that defied death in the "Wreck of "53"" and he would proudly wear the badge of recognition upon his face. The nickname "Hot Harold" would not have much of a romantic ring to it, but he would still relish the fame of it. Due to a drastic loss of blood and a lack of warm covering the engineer had slipped away to death before help arrived.

Railroad inspectors at the crash site had determined that the cause of the train wreck had been a snapped front axle of the coal tender. Once the recovery operation had been completed the snapped axle sections were transported by wagon to the train barn in New Hampshire where Olin was employed. The train maintenance barn was a huge cavernous wooden structure constructed with thick, one foot square white pine posts and beams, employing mortise, tenons and wood pins at the joints. The overhead clearance was forty feet as was needed to accommodate the tall smoke stacks of some models of locomotives.

## Chapter 2

Seven months passed. On Monday morning, August 1, 1853, Olin was reworking rivets on a passenger car when he noticed a well-dressed man standing over the broken axle and gazing down at it. Thinking that the man might be a curiosity seeker he approached the newcomer to advise him that the axle was not to be touched. "Excuse me, Sir. That axle is evidence in the cause of a derailment and you are not allowed to move it or take it away."

The man raised his gaze from the axle to the boy's face. Olin saw that the man had a high forehead, was balding, perhaps in his thirties, paunchy about the waist and had eyes with bags and drooping eyelids. He was by no measure handsome but his face was unique and interesting.

"What is your name, son?" the man asked quietly.

"Olin".

The man said, "Well, my name is, Benjamin Franklin Butler".

"Well, in that instance Sir, I am Olin Terrel Collins, and I have been told to keep this broken axle safe".

The man informed Olin of the reason that he was there. "I have been requested by the President of the United States, Franklin Pierce, to inspect this axle".

The man appeared believable and respectable so Olin felt that he was in no position to deny him the right to inspect the axle even though he thought him to be joking in the reference to the president.

At this moment the stocky middle-aged train maintenance foreman Mr. Martinmon, walked up and addressed Benjamin Butler. "Mr. Butler, Sir, we have placed a new axle of this same type by the hydraulic press as you requested. It can be snapped whenever you desire. Olin here understands the operation of the press and can do the work for you. The corporation president has instructed me to provide you with every other assistance that you might require and he has informed President Pierce of your determined interest in the matter of the derailment."

"Thank you, Mr. Martinmon. Perhaps you have a person trained in metallurgy who is available and might assist us."

Mr. Martinmon glanced at Olin and then answered Butler. "You might believe this strange, Sir, but the person that most understands metals in this maintenance barn is Olin here. He seems to know more about metals than a Frenchman knows about cuisses de grenouille. None of my men are schooled. They all began as apprentices as Olin did also, and most are Irish immigrants. But, Olin here is a reader of books, being in fact my only worker that can read. He tells me, and his knowledge shows it, that he has read every book within miles on the subject of metals. I fear that if he continues he will someday have my job."

Olin's taste buds had tingled at Martinmon's mention of deep fried frog legs as he stood silently by. Mr. Martinmon continued to inform Mr. Butler of Olin's status in the train maintenance barn. "I hired Olin five years ago, a nine-year-old pipsqueak he was then, at the urging and recommendation of his aunt Henphra, the town librarian. We used him as a fetch. He wanted to work very badly so he quickly ran to get any tool or



other thing that the workers needed. He even ran to get them buckets of steam and skyhooks.” (They all laughed at these ages-old practical jokes.)

Martinmon fondly placed a hand upon Olin’s shoulder. “He kept his nose poked into all the work that was being done on the trains and at the smithing forge and he learned it all quite well. With each year going by, I could see that he was becoming a smart pup, and he talked sense. It’s five years now and he is my most knowledgeable man, be he a boy still or not. In this train barn he is the one you need talk to about the axle, lessen you want me to get a mechanical engineer up from Boston.”

Butler declined the offer, reserving that possibility if later events should demand it but his expression still displayed some skepticism. After all, this was an important case that involved the President of the United States and the Railroad Company. He might be laughed out of the courtroom if he declared a fourteen-year-old lad as a technical expert.

Martinmon sensed Butler’s apprehension at having the young Olin advise him. “Ask him some questions on the matter,” he suggested.

Butler was hesitant to base his case upon what a mere youth might tell him about metals. The problem involved the mechanics of large machines in the form of an engine, its coal tender and the passenger cars. If ever he required Olin to testify in the case he needed to be sure that the lad would not wither under an attack by an aggressive opposing attorney. He turned to Olin. “I am going to ask you a question that the average person could not easily answer. Only someone trained in mechanics and mathematics would be able to quickly respond correctly.”

Olin was intrigued. “Please ask it as now you have my curiosity up.”

Martinmon became apprehensive as he had just earlier vouched for Olin’s knowledge and he would look the fool in front of an important man if Olin could not give the right answer.

“Imagine an entire train composed of a locomotive, tender and several passenger cars proceeding normally upon the rails at a velocity of sixty miles per hour,” Butler instructed him.

Olin nodded. “Yes, Sir.”

Butler then posed the question. “Is there any part of that entire set of machinery that is actually not traveling down the tracks at sixty miles an hour, but instead is stationary?”

Martinmon groaned. He was convinced that it was some sort of trick question and that it would trip Olin up.

“Yes,” Olin smiled. “And the number of them is equal to the number of wheels upon the tracks.”

Butler expressed satisfaction with the answer. “Very good and very quick.”

Martinmon was confounded. “What in the world are you two talking about? Of course all parts of the train are moving down the tracks, how could it go from one place to the other without all of the parts moving along?”

“Will you agree that the tracks are stationary?” Olin queried Martinmon.

“Of course. What kind of a crazy question is that?”

“Can you agree also that the wheels are not skidding along those stationary

tracks?"

Martinmon reddened. "Are you playing me for a fool Olin? Of course the wheels are not skidding on the tracks unless the engineer applies the brakes hard."

Olin extended his reasoning. "If the tracks are stationary and the wheels are not skidding upon them, then the places on the wheel rims that are touching the tracks at any instant must also be stationary. If they were not then they would skid along the tracks." Martinmon simply stared at him without comprehension.

Olin explained. "A place on the rim of a wheel is at zero velocity when it is in contact with the stationary rail. It increases in speed as the wheel rotates, has its greatest velocity when the wheel has turned one half rotation and then slows again to zero velocity as it once more comes into contact with the rail to complete a full rotation. The sequence then repeats for each revolution of the wheel and that applies to every point along the rim." Martinmon remained silent as he struggled to comprehend.

"Now Sir," Olin continued, "if you wish a demonstration, we will put a daub of white paint on the side of the rim of a wagon wheel and then you can observe it as it passes by. You will easily see that the white spot will be moving the fastest when it is at the top of the wheel and stops for an instant when it is at ground level."

Martinmon looked towards Butler for confirmation. "He is correct Mr. Martinmon," the man assured him. The supervisor thought them both to be wrong as he wondered where he might obtain a small amount of white paint.

"You may console yourself," Butler said, "because the vast majority of men in the world will trust their intuition before ever they will trust proven scientific fact. Politics as we know it could not exist without such a flaw in human nature."

Having now gained confidence in Olin's knowledge of mechanics Butler decided to put it to a test. "Well, then my fine young expert, tell me what happened to break this axle. The prosecutor states that there had existed a crack for a long length of time that went undetected. By the law of Massachusetts, negligence of a railroad corporation in running a train may make the corporation liable for up to \$ 5,000 to the estate of a deceased due to a derailment or other cause."

"Well," Olin responded, "that explains why the President of the United States wishes you to prove that the corporation was at fault because we all know that his son was killed in the derailment. But Sir, are you not a trained technician in these matters?"

Butler shook his head slightly in the negative. "I practice at the bar. I will defend the train corporation in court against a suit brought by an heir of a victim of the accident. Actually, President Pierce desires that I demonstrate that the railroad was not negligent in the matter of the derailment."

Olin found the man's last statement to be incomprehensible and could not muster a comment or a question.

Butler repeated his question calmly. "Again I ask you, what caused this axle to snap as it did?"

The teenager squatted down at the broken axle end and pointed at the center of the break. "There is an area about an inch in diameter here that shows a granular appearance. All steels have a granular composition when sheared or cracked. When the axle broke it tore apart and left this granular material. The break was almost

certainly the result of stress concentration near the break point."

Olin paused and looked at Butler to ascertain if the man wished to ask a question. Butler spread his hands slightly in the gesture that translates to "and what else?"

Olin continued. "Stress concentration can occur because of many things but most often it is due to minute slag inclusions, notches, grooves, lathe machine markings and the like. On this axle, as on most others, I can see and feel slight grooves that are tooling marks left during the lathe turning and making of the axle. Regardless of how careful a machine operator might be and how well he sharpens his cutting tools there will always be slight grooves left afterwards. A crack probably began near this break point due to such a groove.

It is because of this possibility that axles are rung with a hammer tap before the departure of a train. A crack will change the tone of the sound as compared to a solid axle. If the axle is not replaced immediately the crack will be through in a short time of train operation."

Butler's brow became furrowed in thought at this last comment.

Mr. Martinmon expressed confidence in Olin's abilities. "Have I not been right? The lad understands metals and such. I am sure Mr. Butler that I leave you in good hands. I must now attend to some of my men who have gone slack in my absence. They claim to be religious and when I catch them napping with their eyes closed they awake with a start and say "Amen" as if I had found them in deep prayer. If I catch them again they will certainly have great need to pray." He turned and left the man and boy.

Butler looked down at the lad with a questioning expression. "How do you have such knowledge of metals? Where did you get this training?"

Olin looked about to assure that they were alone, noting that the other workers were some distance away and engrossed in their labors with fervor now that Mr. Martinmon was approaching them. As Olin stood up it was apparent that he was not eager to answer the question and he hesitated. But because Butler was not of the town and appeared both respectable and trust worthy, he finally did. "I live in a library."

Butler was incredulous. "You live where?"

"I ask you Sir, to please not tell anyone because they might put a stop to it and I have no other place to live."

Butler nodded his agreement to the request as it was only his curiosity that needed to be satisfied and he had no thought of evicting the boy from a library, hen house or any other structure.

Olin explained the matter of his strange lodging. "I have lived in the storage room of the public library since I was nine years old. The librarian is my aunt Henphra. My father left before I was born and when I was nine my mother disappeared one day and has not been heard of since. We fear some harm came to her but the authorities must never have identified her in order to inform us. My aunt and I know she would not have left me otherwise. My aunt and her family live in a small and very crowded apartment and could not take me in there. That gave me a great fear of being placed in an orphanage."

The orphanages of the times were not necessarily wholesome institutions and

Butler had no desire to be the cause of the lad's entry into such a place. "You need not fret my boy, you are welcome to your library and I will not reveal your residence to anyone."

Being much relieved Olin continued. "No one thinks it odd that I am often at the library because they know that she is my aunt. She has given me many instructions in reading because she believes it will allow me to get ahead. I simply hide among the bookshelves and do not leave with the last patron and my aunt each evening. Also I have a key because often I must get in at later hours. At night I read books by candle light in the storage room that has no windows. I have read many kinds of books. All of the well known authors and the classics too, as well as all of the books there about metal, machines and other sciences."

Butler thought for a moment about what he had just been told and as a man that was technically adept he found cause to ask a question. "Why do you not freeze in the winter? Surely there is no stove in the storage room and the library stove goes cold after the library shuts."

Olin responded to the query. "Well, Sir, many people sleep in cold houses at night because not all can afford to use wood or coal all night long. Also, as you are aware, it is usual for people to put a tub of water in their cellar on a frigid winter night to prevent their preserves and vegetables from freezing. For the same reason, those who own orchids spray water in the air if there is a chance of a freeze in late spring that would damage their young buds and fruits. The spray protects these because in order that the water will freeze it must release the heat within it. It gives up this heat to the air about it. We have all experienced the case where on a cold winter day as it begins to snow we feel that the air about us has become warmer. This is because the atmospheric water vapor must give up its heat before it can freeze into snowflakes." Olin paused.

Butler nodded his head in the agreement that he had experienced such a thing.

Olin continued. "A pound of water must give up 144 BTU of heat in order to freeze. This heat goes into the air about it and stops the cellar, or orchid fruits, or my storage room from freezing. I have in the storage room a tub of water about 4 feet long, 3 feet wide and 1.5 feet deep, as it is a bathing tub. The heat given up by that water as it freezes, I have reckoned, is the equivalent of burning 11.5 pounds of hard coal in a stove, and in a small room that is very much. The temperature goes down to very nearly freezing but it does not pass it. Thus, while I get cold I have no fear of extreme discomfort or frostbite. During the day the library stove allows the tub of water to regain heat even though the storeroom door is closed and locked."

Butler showed admiration. "That is very ingenious and you are correct about the use of water tubs in vegetable cellars and the sprays in orchids. I cannot imagine how you memorize all of the numerical data but you certainly appear to have done so. The great authors have tutored you and that explains why you are fourteen with a mind and speech going on thirty years. Youngsters usually do not read every evening as you do and the beneficial effects are clearly evident. But we need to return to the task at hand. Are we really to believe that a thin tool mark around a two and a half-inch thick steel axle could be the cause of a crack?"

Olin nodded affirmatively and replied by way of an example. "In glass cutting the tool only scores the glass surface, it does not actually cut the glass to any significant depth. When stress is applied the glass snaps along that thin shallow line, as a glazier well knows. In the books they call it "stress concentration".

Butler had a question for Olin. "How might the crack in the axle be caused to begin? By a repetitive oscillating stress or by a single sharp impact such as that which snaps glass?"

"By either. Or both together. But I must state that my belief is that in this case it was a sudden stress and my reason is that the ringers are diligent and never miss hammering an axle because they know that a later failure during the train's run will be upon their heads. The axle was in good condition when the train left Boston. You may depend upon that, Sir."

Butler declared some doubt. "I am having difficulty believing that a man can reliably detect a cracked axle simply by the tone returned from a hammer tap upon it."

"There are many musicians with perfect pitch and I have difficulty understanding how they achieve that," Olin observed. "But they do manage it, and I believe so do the ringers achieve their goal."

Butler shrugged in partial acceptance of the argument and then stooped to peer at the cracked end of the axle once again. Around the granular center section of the axle end there was a ring of flattened and hammered metal.

He knew the lawyers for the plaintiff were prepared to argue that this was caused by flexure of the axle over a long period of time after the crack had begun. It was theorized that with each wheel rotation the walls of the crack opened and closed and in effect hammered the granular metal flat and fairly smooth. They would insist that numerous wheel rotations were required, proving that the crack existed for a long time and that the train corporation was negligent for not having detected it as a result of deficient maintenance and inspection.

His opposing attorneys had an expert witness that was prepared to testify that it would require about three months of train operation with the crack present to achieve the hammered effect. It was surmised that at some point there was a final fatigue of the area and the axle snapped in two. But Olin had just indicated that the axle would break within a short time after the crack started, not taking three months of train operation.

Butler stood up and asked him for an explanation. "Olin, why did you say that the axle would shear a short time after the crack first appeared? My opponents argue that logic dictates that this axle had to have been in crack failure for a long time in order to achieve this hammered look to it"

Olin shrugged off their argument. "I once read that logic is an organized procedure for going wrong with confidence and certainty." Butler laughed. Olin added, "They have fallen prey to their intuition and are failing to make a scientific test of the facts." Butler hoped that the lad was correct in that assertion.

Olin went on to explain his reasoning about the time to failure of the axle. "When you read of it the process seems so simple that you do not easily forget it. The axle is at it's strongest before a crack starts. It seems clear that once the crack does start the axle is now weaker and less able to resist cracking somewhat further. Having done that it is

weaker yet and cracks faster yet. And so on. That is why fatigue failures are so dangerous, there is very little warning before a total failure occurs."

Butler knew at that moment that the court case had been won. He nodded that he understood the lad's explanation. "Olin, could you on purpose devise some manner by which to cause an axle end that had been sheared to take on nearly the identical appearance of this one without requiring three months of train operation?"

"Easily. I would need only my heavy rivet hammer. In my work here I have hammered very many items of iron and steel and from that experience I am sure that I can easily hammer an axle end to obtain this appearance."

A light shone in Butler's eyes. "Let us get to that work!"

The train barn contained a large hydraulic press that was used for various purposes of maintenance and for fabrication of metal items. It was easily adapted to rigidly hold a new steel axle firmly in place for shearing into two pieces.

Olin made a suggestion. "I think that I should use a hack saw and first make a very shallow cut in the axle perhaps only a hundredth of an inch deep. If what I have told you is correct then the axle should snap there when stressed." Butler agreed and Olin made the nick with a hacksaw. He grunted under the strain as he lifted and clamped the heavy new axle in place in the machine's vise jaws. He then proceeded to pump a long handle rapidly back and forth to develop the hydraulic pressure required to slowly move the large piston of the machine down towards the extended end of the axle in preparation to shearing it off.

He turned his head towards Butler. "This type of press was invented by Joseph Bramah in 1795. He also was one of the first to propose screw propellers for ships. I have just the other day read in our weekly newspaper that a propeller was used on a dirigible a few months ago. They called it an "air ship" instead of a sea ship. I believe that to be the wrong name for it. I read that Robert Fulton in 1801 built a "submarine" with a screw propeller and it traveled beneath and within water. Because a dirigible travels within air, and not upon the top of it, it should be called a "subair"."

Butler gave a short laugh. "Olin, you certainly are a talker, and upon interesting matters. However, it is more interesting to me at the moment that your single arm of flesh, bone and blood operating upon that slender lever arm will ultimately shear a two-inch thick steel axle!"

"Yes," Olin agreed. "The press develops a force of 250 tons."

Under the slow but relentless progression of the large piston of the press the axle finally sheared. And it did so at the location of the nick that the lad had made. There was no snapping sound. The axle had begun to give under the force and then sheared more and more easily as the piston moved downward upon it. The entire area of the sheared end had a granular appearance similar to the center area of the train's sheared axle.

"Should I hammer the end, Sir?" Olin asked.

"Strike near the edge just once," instructed Butler.

Olin did so. A relatively smooth impact area resulted, clearly visible in comparison to the granular end of the axle.

Butler observed this and then told Olin, "Continue to strike around the outer

edges of the break until this axle end appears as much as possible like the axle in evidence. But mind you, we must carefully mark down each blow so that we know the sum at the end of the work." They proceeded with the effort and stopped when the axle end appeared quite similar to the axle that had caused the fateful train wreck. It took forty-two strikes. Having now his count of the required number of blows Butler was ready to depart.

"Olin I thank you for all that you have said and done and I bid you good-bye. The trial is scheduled to begin this week and I now have the data needed to win the case."

Out of curiosity Olin asked Butler to tarry a moment. "Sir, can you explain to me why President Pierce desires that the train corporation be determined to be not guilty of negligence when the accident has cost the life of his son?"

Butler explained. "Our country is expanding westward and the railroads are of great importance in that regard. The President is concerned that if the train company loses the lawsuit in this highly publicized case that it will invite multitudes of people to sue for various injuries, both great and small. That could bring the railroad companies to financial ruin and prevent American progress."

Butler paused, eyeing Olin inquisitively for a moment and then asked about a different matter. "How do you find your employment to be? Are you satisfied with the work and the pay? I have some interest because I represent a number of the textile mill workers down in Lowell and often their work conditions are harsh and long while they are underpaid."

Olin smiled. "I like tales that have a point or moral to them and I have read many of them. Your question brings one to my mind as our newspaper editor Mr. Trinkem, recently published such a story. There is a man in Springfield, Illinois, a lawyer I think, and they call him Honest Abe Lincoln. It seems that he has told very many good tales and this is one of them, as best that I recollect it.

A Negro was the chief slave of a plantation owner who grew cotton and also made corn liquor. One day the master in a fit of generosity gave the slave a bottle of the corn "likker". Some days later another slave asked the chief slave how he had liked the homemade firewater.

"It war jus right," the chief slave answered. "Yas suh, it war parfackt."

The other slave thought that was high praise for homemade likker and asked him to explain his comments more fully.

He did so. "It is like das, if that likker had been even the littlest bit better, why then the Masser would not ha give it to me. No, suh. He would ha kept it for his'self. Now, if that likker had been even the littlest bit worse, why then I could nah ha drunk it. So, thar you see, it war jus right.""

Butler guffawed at the conclusion of the story. So you see, Mr. Butler," continued Olin, "if this job was even the littlest easier or paid the littlest more, then they would give it to someone else. If it was even the littlest worse or paid the littlest less then I would walk out the barn door with you and try Lowell."

Butler laughed again and remarked, "Yes, I have heard of Abraham Lincoln. He is speaking out against slavery and it is costing him clients and the companionship of those that once called him friend."

Mr. Martinmon returned and walked up to them with an inquiring look upon his face.

"I told him the slave's corn likker story," Olin informed him.

Martinmon smiled. "Ah yes. But now I ask you Mr. Butler, has Olin done all that you have asked?"

"Yes. And quite well, too."

"Good," Martinmon said. "Now in the meantime I have been with some of the town's men and they hearing of Olin's ability to answer all your questions, they propose a mystery to the lad. They fear that he might get too big of a head and perhaps needs a challenging question that he cannot conquer. Just to keep him modest."

Olin and Butler waited for Martinmon to reveal the puzzling question and he did so. "As most are aware the first flower shots of spring are the daffodils. In early March their small green leaves can be seen pushing up through the frozen ground and snow."

Olin guessed what the question would be. "And you wish to know how it is that fragile young flower shoots manage to pierce the solidly frozen ground which is so hard that a pick ax could barely make a mark upon it?" Martinmon was taken aback. "Yes," was all that he could manage to say. Butler found the question intriguing and turned to Olin as he awaited his answer, if he should have one.

"It will cost you three dollars," Olin said to Martinmon. "You can get the money back by charging the townsmen a dollar each to hear the answer from you."

The supervisor nodded assent quickly as he enjoyed the thought of turning the question to a profit and he was sure that he could get a dollar each from five or six of the townsmen.

"Mr. Butler does not have to pay a dollar," Olin informed him, "but you should hand me three or you will never hear the answer."

The man fished into his pocket and his hand came out with a leather pouch. He opened it and fished out three silver dollars that he handed to Olin, who then proceeded to answer the question.

"When daffodils are in full bloom and a lady in her garden cuts their stems so that they might later be placed in a vase, something very noticeable happens. The cut stems give forth a large amount of watery sap. Much more so than other flowers when they are cut. Now, in March the earth at some depth below the surface, and where the daffodil bulbs rest, is not frozen. The temperature there is perhaps some fifty degrees Fahrenheit. From that warmer depth, up from the bulbs and their roots, comes this heated sap into the sprouting leaves and they slowly melt their way ever so slowly through the icy dirt. Thank you for the three dollars."

Butler smiled at the answer, shook Olin and Martinmon's hands and then departed. In a twist of history Abe Lincoln would some years later ask Butler to run for election as his vice president. Butler graciously declined stating that he could never be a "vice anything". Had he accepted he would have become President Butler after Lincoln's assassination.



## Chapter 3

The weeks passed uneventfully as Olin continued his labor in the train barn. He was working at blacksmithing most of the time and he very much enjoyed that type of work. As he heated an iron rivet in the shop's forge until it was glowing cherry red in color he never ceased to be amazed that cold dull steel could be made to appear so brilliant in the heat of the forge coals.

Olin knew that from the beginning of the Iron Age and up through the 1700's iron nails for construction of homes and businesses were formed by hand at the forge and as a consequence were expensive. When the early eastern U.S. settlers decided to move west they burned their houses to the ground and the next day they searched through the ashes and found all of their nails. These were to be re-used to build their future houses.

Working in the railroad barn was a man named Paddy Cronin and at age twenty-six he had immigrated to America with his parents due to the Irish potato crop failure. Millions of Irish people were still pouring into the country each year because the disastrous famine was at it's worst. The average American found it very strange that the failure of a crop of a single vegetable could cause over a million and a half people to starve to death up to the year 1853. However, Olin knew that potatoes had been a cash crop as well as a staple food. When the potato harvest failed the Irish no longer had money for milk, meat, bread and other food necessities.

Paddy Cronin walked over to the forge and asked Olin a question. "Have you heard of the "Brotherhood"?"

Olin was a little disturbed by the question. "Paddy, I know you as a good person and I would not have thought that you were a member of the secret society known as the Fenian Brotherhood."

The dark haired and blue-eyed Paddy shook his head. "I'm not. Ian Falkland talks about the Brotherhood all the time and wants many of us to join. But I think that it is a violent bunch of thugs from what I hear."

Olin was aware that the Irish militant movement in America was growing in numbers and was stockpiling arms and explosives in expectation of an invasion of their homeland. When they had left Ireland they had not left behind their hate of the English.

"You hear correctly," Olin said. "The Fenians had been mercenary soldiers that wandered about the country during the third century A.D. in the paid service of the kings. They were fighters for hire. Some call the Fenians "Sien Finn".

"What does that name mean?" Paddy asked. "It sounds like Irish for "we" or "ourselves"."

"That is what it means," Olin confirmed. "It is not much different from the Sicilian "cosa nostra" which means roughly "our affair"."

"Well, whatever the names mean I don't think I want anything to do with them," Paddy. Then he smiled. "I know what your name means."

"What are you talking about?" Olin asked.

Paddy laughed. "Your name means "My Darling Little Cow." Olin could make no sense of it.

Paddy laughed again. "Americans call their cute little cows "Bessie" The Irish call theirs "Cuilein". The name Collins comes from that."

Olin smiled.

Paddy became suspicious. "What's so funny?"

Olin said, "My Cuilein, I need you to help me set a hot rivet."

Paddy and Olin were to install the hot rivet to repair a railcar floor. Olin knew that it would not be their hammering that caused the rivet to tightly seize the floor plate to the beam below. It would be the contraction of the iron rivet as it cooled. That was the reason for hot rivets in the first place. And it was for the same reason that iron tires for wagon wheels were first heated to cause them to expand just enough to be hammered onto the rim of wooden wagon wheels. As the iron tire cooled it shrank and compressed the wooden wheel rim, spokes and hub into a very rigid assembly.

The laborers that worked with Olin had difficulty understanding the tremendous forces generated both by expansion and contraction of metals as a result of temperature changes. Olin related to them that one of the books that he had read stated the following. If a small bar of iron one inch in cross sectional area is placed between fixed supports so as to make expansion impossible, when it's temperature is raised forty degrees, it would result in a pressure of nearly five tons against the supports. Conversely, if the iron bar ends were rigidly attached to fixed supports and cooled by forty degrees it would exert a pull of about five tons. And that was why hot riveting resulted in extremely strong joints of metals. As the rivet cooled it shrank and applied tremendous force to hold the floor plate and the beam together.

On a grander scale it was not extraordinary that the top of brick walls of houses and factories might begin to bow out due to the stress applied by the weight of the roof above, especially when encumbered with heavy snow loads. The effect of roof pressure was to always cause the tops of brick walls to tilt outward and never inward.

To save the building before it collapsed holes were first drilled through the bricks near the tops of the opposite walls. This was so that an iron rod longer by some inches than the width of the building could be inserted from the outside, first into the hole of one wall, then completely through the building at the ceiling line and finally out through the drilled hole in the opposite wall. A star shaped metal plate with a hole in its center was slid over each end of the rod at the outside of the walls. Iron nuts were threaded on to the rod ends and then tightened to provide a compressive force to pull the outward tilting walls closer to a vertical position.

Workers inside the building used fires to heat the length of the rod, without catching fire to the roof, in order to cause it to expand and thus expose yet more threads outside the walls. At that time the nuts could be further tightened. When the steel rod was allowed to cool it contracted and pulled the walls inward toward each other to finally remove the outward tilt. The rod heating, nut tightening and rod cooling process could be repeated as many times as necessary to true up the walls. It was common to see brick structures with "building stars" at the top of the outside walls and the only reason they were star shaped as opposed to being large round flat washers was that people forever have an innate urge to be decorative.

With the rivet set Olin exited the passenger car and returned to the forge to begin

heating a second rivet. The laborer beneath the car dozed off in the August afternoon heat. As he worked at the forge Olin heard voices and looking up he noticed several boys loitering in the warm sunshine at the entrance to the train barn. During the summer months these waifs sold drinks of iced water to train passengers at the local depot and upon the trains. It was not difficult for them to obtain the ice, as they would make nighttime raids upon the usually unguarded local ice storage barn. In the darkness they would scurry away with burlap bags full of ice chips along with some of the sawdust that was used to insulate the ice against the summer heat and thus retard it's melting. The train passengers often had to spit out bits of wood while drinking their ice water but when there was no other alternative for relief from the sweltering heat of the railcars they did little complaining and were grateful for the boy's enterprising venture.

In the winter the boys burned deadfall tree branches in order to heat stones and bricks that were then rented to passengers as foot warmers. Their customers would eagerly clamor for the chance to rent a hot stone to ease the discomfort of traveling during the frigid winter months and the boys were often hard put to keep up with the demand. They retrieved the cooled stones for reuse when the train made its return trip while at the same time renting newly heated stones to the next group of riders.

The ice, stones and the firewood cost the boys nothing so it was an attractive endeavor for them. The train conductors would allow the boys to ride free as otherwise the paying passengers would complain, often and loudly, when they were thirsty in the summer or suffered from cold feet in the winter. Olin knew some of the boys and was concerned about their future. Water and stones would only be a means of livelihood during their youth and even then for only several months of each year. As illiterate men they would have strenuous manual labor as their destiny. Or crime.

His thoughts were influenced by having read in the August 12, 1853, edition of the local weekly paper that there were an estimated 30,000 abandoned or orphaned children living on the streets of New York City. A number of these were true orphans that had lost both parents but the majority had at least one living parent and had been pushed out into the streets because the families had become too large and the parents could not care for all of the children. Many others were run-a-ways from their abusive or alcoholic elders.

The newspaper article described the efforts of Minister Charles Loring Brace to attempt to help the orphans by establishing schools that taught trades. He invited ladies to teach behavior and manners, and he established bank accounts to encourage the youngsters to save the little money that they were able to earn.

Olin's aunt Henphra had also read the article and he remembered that she had gloomily remarked upon it. She noted that Brace's good efforts came to little because the well off in New York failed miserably to contribute funds to such humane efforts. Their negative responses to donation requests were along the lines that the lower classes do not deserve charity, as they were poor because they chose not to help themselves, and thus they are getting what they deserved. The elite held the view that the lower classes could not, and should not reap the harvest if they had not sown the seed and tended the crop. Noblesse oblige lays dead and buried in uptown New York City.

"What is "Noblesse oblige"?" he had asked.

"The noblesse are people born to high position, wealth and power," she had answered. "It is the French word for "noble". The word "oblige" means "obligation". It is the belief that people of high birth rank should exhibit honorable and generous behavior towards those that are born into much less fortunate circumstances. But very often the rich believe that they worked very hard to be born into wealth and if the poor would simply do the same thing then all their problems would be solved."

Because of the lack of philanthropy on the part of those that could most readily afford charity, Minister Brace had despaired of finding a solution within New York City and approached the people of cities much further west. Through his Children's Aid Society he managed to arrange for true adoptions by rural hardworking families and began sending children west on "orphan trains". By all accounts his efforts were very successful and great care had been taken to assure that over the years the adopted children continued to be treated well. Unfortunately for the local stone and water boys they were not in New York City but instead in a rural New Hampshire town and Olin pondered their fate as he worked at the forge. He looked up a short while later to see one of the water and stone boys sauntering over.

"Hey there, Olin," the boy greeted him.

"Hello Andre. Perhaps I might buy some ice water because the heat of these hot coals is making me thirsty. Are your ice water profits good in this hot muggy weather?"

The lanky orphan was a year and a half older than Olin and he ran his hand through his thick long black hair to keep it pushed out of his brown eyes as he complained. "The weather will soon get cooler and the passengers will not want much ice water. It will be months before they will want hot stones."

Olin knew that meant that the boys would not have much money for food or other necessities over the next several months. He made a suggestion. "Find something else to sell them, something that the passengers want and will pay for during their long, uncomfortable and boring trips regardless of the weather. Your best choice of commodities would be something that relieves their boredom, something that you don't have to steal."

Andre squinted his brown eyes at Olin and responded with irritation. "Sacré bleu! That is easy to say but hard to do. We don't have anything else that is free to us except ice, water, stones and the wood to heat them. What is a "commodities" and where can we get one?"

Olin ceased pulling the bellow chain and allowed the glowing hot rivet to begin to cool. The riveter Paddy was asleep beneath the railroad car and even if awake he would not complain of delays in the work. The remembrance of the Orphan's Aid Society's achievements prompted Olin to attempt to devise a means by which he could help the boys to help themselves. "Perhaps you can tell tales. If the story is interesting the passengers might throw you some coins for the entertainment."

"I don't know any interesting tales," Andre confessed, "but I have a question. I have heard people at the train station talk about a man with a strange name."

"What name?"

"Moby Dick. I guess that the man's real name is Richard, but why do they call

him Moby? I know why they call Charlie, who lost one arm in an accident, "slot machine Charlie" but I can't make any sense of Moby."

Olin laughed. "It is the name of a fierce whale in a book written by Herman Melville two years ago. I read it last week."

"Une baleine? Why is the whale named at all?" Andre asked. "And why is its name "Moby Dick"?"

"That is the point of the matter," stated Olin. "Melville never explains why the whale's name is Moby Dick. Now, that creates more interest than if he did explain it."

Andre began to show some exasperation. "Well, as strange as that sounds it doesn't seem like anything that can make me money."

Olin smiled as he sat down upon a wooden stool. "Well, you could tell the passengers things that you have read in the newspaper. Those are not sold on the train and people who are bored with the long ride will pay to hear you tell the news."

"I don't read very well," confessed Andre.

"Well then you could tell stories to the passengers. The stories should have something for the women and something for the men. The women often like a little horror in a story. The men enjoy stories about wars and fighting, especially when they describe bad things that are happening to other people."

Andre became very attentive, as he liked stories that included both horror and war. But then he wondered why he and others did so. "Why do people like to hear about bad things happening to other people?"

"Because misery loves company," responded Olin.

Totally bewildered Andre could only utter, "What?"

"If people feel that there are things happening in their lives that are making them miserable, they feel some relief when they learn that other people are also having difficulties. It doesn't fix their own problems in the slightest but it somehow just makes them feel better in their misery. It also explains morbid curiosity."

Andre took a moment to reply. "I think that you are right. If I have a cold in the winter I don't like being the only person feeling sick and I feel better if other people have colds also. I never really thought about that. But what is the "morbid curiosity" that you mentioned? Is "morbid" a disease or a person? Is it anything like Moby?"

"Let us save that for some other time as I wish to tell you other things before Martinmon returns," replied Olin.

"Yes, go ahead," Andre encouraged him. "Has this story anything to do with the Tsar of Russia? They say that he is starting a war in some land far away."

Olin knew that early in the past July the Tsar had ordered his troops to cross the river Pruth and to enter Moldavia and Wallachia. This was allegedly to protect the Greek Orthodox Christians, as the Turkish Sultan had favored the opposing Catholics by giving them the keys to the Church of the Holy Sepulcher in Bethlehem in December 1852.

Britain, France and Austria had all become involved in the issues along with Russia and Turkey. Olin surmised that with so many nations involved in a religious and territorial dispute, war was a foregone conclusion. He would be proved correct in less than two months when the Crimean War began on October 5, 1853.

"That situation is too complex for anyone to understand," he advised Andre. "Let

us stay with a simpler story. For example there once was a man named Fontaine who was and advisor to a king."

"Mon Dieu! A king!" exclaimed Andre. "This must be a good story."

"The story is about the fact that in the courts of kings there are people that are often full of jealousies and hatreds. So Fontaine, being one of the king's favorites, had enemies who wished to make him look like a fool."

"What did the bastards do?" Andre demanded to know.

"They plotted to make Fontaine appear stupid in front of everyone during one of the royal festivals and this was to be accomplished by a man that performed various tricks of so called magic."

"Magic?" gasped Andre excitedly.

Olin gave Andre some sound advice. "Always remember that there is no such thing as real magic. There is sleight of hand and there is science, but there is no magic. If ever you see something that appears to be magical you should doubt it and search for the real cause."

"I will. But what happened next?" Andre asked impatiently.

Olin continued with the story. "Well, one evening the so-called magician prepared to perform his act before the king, Fontaine, the lords, the generals and many other people. The magician set in place a flat, wide and very smooth plank of wood, perhaps fifteen feet long. Down the length of it were two very straight grooves. They were side-by-side but separated by about a foot. He rested the board upon stone blocks in a manner that caused it to lie level to the right and left but to slant downward somewhat at one end.

At the upper end of the plank he held two cannon balls fixed in place by means of a string across the front of them. Each ball sat at the head of a groove but the string prevented them from rolling down the plank to the lower end. One of these cannon balls was of two pounds and the other was of six pounds weight so of course one was larger than the other. Both had extremely smooth round surfaces so that they could roll easily down along the plank grooves if the string were removed.

In his hand he held a slender but very sharp sword and that was to be used to cut the string with one stroke in the space between the balls and allow them to start rolling down the plank at the same instant."

Andre asserted what he believed to be obvious. "Well, it would be a sort of race but the big cannon ball would win it because heavier things fall and roll faster than lighter things."

Olin ignored the boy's comments and stayed to the tale. "The magician asked if the king would be kind enough to be the person to cut the string so that the fairness of it would not be in doubt. Then turning to Fontaine the man asked, "Oh, Great Fontaine, can you reveal to us which cannon ball will roll to the end of the plank first? Will it be the heavier and larger one, or the lighter and smaller one?"

Now, from that question Fontaine immediately knew what the answer would be and he wrote this upon a piece of parchment with a charcoal stick. He folded the parchment and handed it to one of the people that he knew disliked him and thus would never be accused of assisting him in any manner. He asked him to clench the

parchment in his fist until the cannon balls had finished rolling and then to unfold the parchment and read what he had written upon it."

Andre was full of assurance. "I am sure that he wrote that the large cannon ball would reach the end of the board first." Then the lad was in a quandary. "But how could Fontaine know that from the question that he had been asked?"

Olin ignored Andre's query. "The king raised the sword," he said, "and then brought it down with a swift and sure slash that cut the string cleanly and released the two cannon balls to roll downward in their grooves. They started out slowly and then each gathered speed as they continued to roll straight down the wooden plank. When they were half way down, it was not possible to state which was in the lead."

Andre's brow wrinkled with confusion.

"Many of the people had made bets as to which ball would roll the fastest," continued Olin, "and now many of them were cheering their favorite on to victory as if cannon balls had ears. The speed of the rolling balls continually increased but when the balls had rolled three quarters of the way down the plank the race was still in question and the onlookers were becoming befuddled. As was the king who had expected the larger cannon ball to win the race." Olin paused.

"Well?" asked Andre "What happened? Which one won the race?"

Olin smiled and answered. "They both reached the end of the plank at the same time as best anyone could tell."

Andre was dumbfounded. "C'est encroyable! How can that be? One cannon ball weighed three times as much as the other one so how can they roll down at the same speed. What did Fontaine write on the parchment that he gave to the man to hold?"

Olin answered him. "Well, the man opened his hand and unfolded the parchment. He had been told the day before what the result would be so he was not surprised at the outcome of the race. But he was extremely annoyed at the words written on the parchment. The King commanded him to read Fontaine's words aloud to the crowd and since he could not disobey his ruler he read out the words: "It will be a tie race"."

Andre was speechless for a moment. Then he reflected upon something that Olin had stated earlier. "You said that Fontaine knew the answer as soon as he was asked the question. How did he know?"

"It was actually made easy for him," Olin remarked and then went on to explain, "He concluded instantly that it was a trick to embarrass him and to make him look stupid. Now, since they had given him two choices he knew that neither choice would be correct. If one were right then he would have a fifty-fifty chance of guessing correctly and they were never going to give him odds that were that good. Thus there had to be a third answer and the only other possible answer was that it would have to be a tie race."

Andre was still reluctant to accept the result. "So, if we rolled one ball as big as the moon and another as small as a musket ball down a giant ramp the race would end in a tie?"

"In theory, yes. The speed of rolling depends only on the shape of the object and not its size. If he had rolled down two rings of different sizes they also would reach the end of the board at the same time."

Andre was mystified. "It appears to be a crazy result. How do you know that it is

true?"

"In 1666 Isaac Newton developed the mathematics of calculus. It was in a book devoted to that subject that I learned this to be true."

The boy had no basis upon which to doubt him.

Olin continued speaking. "There are traveling showmen in these times that perform that ball race and the crowds always love it. Since the people always bet either on the one or the other of the balls, they all lose to the showman. The spectators will never understand the science of it but that does not stop them from enjoying the seeing of it. You and the other boys may be able to set up such a race using a large and a small glass marble but you should not do it on a shaky train, do it on the train platform and charge admission to see it done."

Andre was enchanted with the thought of doing it.

"I will talk to Mr. Olsen the cabinetmaker," Olin said, "to see if he would make a straight and smooth board of oak with two slight grooves down its length so that the marbles easily remain on the correct path. There will be a charge but I can get the money back from the townsmen."

Andre did not understand why the townsmen would pay for it but his expression brightened at the thought of having a new way to earn income and he marveled, "Money could be made from the stories and other things that you read." After a moment he had another thought. "But after the first passengers lose their bet to me, they will tell their friends and other people so no one else will bet."

"They won't tell," asserted Olin.

"Why not?"

"Because misery loves company. They will have lost their money and will suffer a little misery and embarrassment because of it. The only thing that would make them feel better is to watch someone else lose their money and to have the chance to laugh at the new losers. Then they won't be the only fools riding the train."

Andre shook his head in mild wonderment of the frailties of man.

"Also," Olin went on, "lessons can be learned from these tales and very often people enjoy hearing these lessons. Do you know what the lessons from Fontaine's story are?"

With an exaggerated pout Andre responded. "I don't know, honored teacher."

"Well, you ignorant vagrant," Olin joked, "I will tell you. The lesson is this. If your enemy offers you a choice between two things, you do not have an obligation to take either of them. For some strange reason there are people that feel compelled to choose once they are asked to choose. Do not accept any of your enemy's choices as none will be in your favor, and instead make another choice that is to your advantage and their disadvantage."

Andre nodded that he grasped the concept. "Is there another lesson?"

"Yes. The next lesson is that friends are made slowly and enemies are made instantly. Fontaine made friends with the king over a number of years. He made enemies of the others in a few days time. Be careful how you treat people and give some thought to your words and acts, especially with people that you are meeting for the first time. This is important to you and all of the other boys because you will meet



many strangers on the train and if you cannot make them all your friends, at least do not make them your enemies. Remember, a person can never be too careful in the choice of his enemies. And remember also that an injury will much sooner be forgiven than an insult."

Andre marveled. "You can get more lessons out of one story than I could get seeds out of a watermelon."

Andre's expression convinced Olin that the boy had understood the lessons. "What I really wanted from this," stated Olin, "was to tell you to look for something that up to the present you had not thought about. Do not believe that the only choices available are those that are first shown to you and thus fail to see other possibilities. If I was hitting you with a stick and asked, "Which do you prefer, that I hit you faster or harder?" it is probably certain that you would not want to choose either. But often the situation is not that clear. Before your only choices were ice water and hot stones. Now you have the added choice of story telling and a demonstration of something that seems unbelievable. People enjoy a story where the unexpected happens, when the underdog wins, and they enjoy entertaining demonstrations."

Olin had kept an eye out for Mr. Martinmon because this was taking some time and he was not doing much work but he continued talking to Andre. "You need to sell something that is not effected by the seasons. Also, it should be something that does not cost you anything, or cause them to throw you into the reformatory for having stolen it. Unless you find something that will earn you honest money probably you and the other boys will sooner or later turn to stealing something more than ice chips. And that will ruin your lives. I have read many books during the past five years and I find a lot of interesting and useful things written in the books. The books on science and mechanics helped me get this job because Mr. Martinmon, like most adults, thought that if I read books that I would also probably be a dependable worker. I know that you can read a little and I know from my own reading that the more that you read the easier it becomes to read. So you must promise me that you will read more."

"I promise."

"You must promise at the risk of a thunder bolt hitting the top of your head!" Olin responded in mock seriousness.

Andre subconsciously glanced towards the door of the maintenance barn for a quick check of the weather conditions. It was still a bright warm day. He committed himself to the pledge. "Yes, of course I promise. Now tell me if there is any other way to make money!"

"You can be a mind reader."

Andre laughed aloud.

"It is not a joke. You can be Andre the Mind Reader Extraordinaire! I can easily teach you how because I have read how to do it. Can you do your ciphers?"

Andre looked downcast and embarrassed. "No, I left school before I learned to add and subtract and those other things."

"Don't worry about it," Olin encouraged him. "You can get adults to do the ciphers for you and they will not even realize that you can't do them. So listen close, as this is how it is done. First we write the number 18 on a piece of paper. We make the 8 with

nice round circles and the one as just a straight line so that if you hold the paper upside down it looks like 81 is written. You place that piece of paper in your pocket without anyone seeing it.

Now, you get on one of the passenger cars of the train and as it is going along you say to the people in it something like this, "Ladies and Gentlemen. I am Andre (he pronounced the name with a heavy French accent) the Mind Reader. I will ask you to pick some numbers of your own choosing and then I will prove to you, one and all, that I can read your mind. You there, Sir, can you please give us a number between one hundred, and nine hundred and ninety nine."

Reflexively Andre repeated, "Between 100 and 999."

"Yes, Now let us say that the man gives you the number 692. You be sure to have a pencil and a scrap of paper so that a lady can write it down. Look for a lady that has probably had some schooling. Also women are much better at ciphers than men are. Say something like, "Wonderful Madam, could you please write down the number 692 in the center of this paper."

After she does you go on talking. "Now wonderful Madam, if you please, think about how to write the number in reverse, exchanging the first cipher with the last cipher and the last with the first." When she does that she will have 296 in her mind.

Next say, "Now wonderful madam, if that number is smaller than the first then write it below the first. If it is larger than the first, then please write it above the first."

Now, listen Andre, you do not care at all what the numbers are, let the lady do the ciphers. You need only remember how to tell her where to place the numbers. Next say, "Wonderful Madam, would you please now subtract the smaller number from the larger number. But, please Madam, do not tell me what the result is."

$$\begin{array}{r} 692 \\ - 296 \\ \hline 396 \end{array}$$

When she has finished the subtraction you say, "Now wonderful Madam, please add together the ciphers of the result to get one more number but do not tell me what it is." She will add three, plus nine, plus six and get the number eighteen. It will always be eighteen."

"What do you mean that it will always be eighteen?" Andre asked incredulously.

"It just will be," stated Olin with assurance. "When she has done that you say "I am going to turn my back and let you show the last result that you have to all the other passengers. Please tell me when you have done that. You turn away and when she says that she has shown the final number on the paper to everyone else you turn back again and close your eyes, and pretend to be trying very hard to read her mind."

Andre practiced a look of deep concentration with his eyes closed.

Olin continued the instructions. "You say "I have a piece of paper in my pocket and the number in your mind has traveled through air and has marked that paper." Pull out the paper you wrote 18 on earlier and show it to them all. They will be very surprised

that you know the number and there will be a lot of laughter at the entertainment. That is when you or one of your friends passes up the aisle with a hat to collect coins. If you want you can first show them the paper as 81 and they will think for a moment that you failed. Then say "whoops" and turn it over. That part is up to you."

Andre wanted to know something. "Why in the world will eighteen always be the last number?"

Olin shrugged. "Over thousands of years of using ciphers bookkeepers and accountants have noticed certain things. I cannot explain it to you and probably they can't either. But it will always, always be eighteen. You must watch out for only one thing and that is when the man first gives you the number be sure that the first and the last cipher are not the same. So for example if he gives you 474 you should say "But kind Sir, do you not know more than two ciphers?" They will all laugh and he will then give you a number with three different ciphers."

Andre was enthralled by it all. "You read these things in books? I wish that I could read that well. I am going to read everything I see as you asked. Do you have other mind reading things?"

"Many," Olin confirmed. "I will tell you a second one so that if the same passengers appear on the return train you can do a different act. You play craps with the other boys, right?"

Andre in fact had dice in his pocket and nodded affirmatively.

Olin continued. "Well, get five or six pair more. Have a man on the train roll, let us say, four pair at the same time while you keep your back turned. Next, while you are still turned away have a woman silently add up the eight numbers showing on the topside of the eight dies. Be sure to always call the men, Sir, and the women, Madam or Miss. Then say "Oh, wonderful Madam, would you now please look at the number on the bottom side of each die and silently add those to what you already have. Do not tell anyone the total aloud. But you may show them the total number written on the paper I gave you."

After she says that she has done that you pretend that you are reading her mind and finally you announce that the total is fifty-six. It will always be fifty-six when four pair of dice are used so do not repeat the trick right away with the same number of dice."

Andre was stunned by the result. "How in the world can it always be 56 when each person can roll a different set of numbers? Almost never would the numbers showing on the top match what someone else had rolled." Andre's face flushed slightly at what he thought was the absurdity of it.

"Just keep listening to me," Olin instructed him. "If you want you can add two more pair of dice. Now there will be twelve dies. When you have the woman do her addition with twelve dies the result will be eighty-four. It will always be eighty-four when you use six pair of dice. Now, roll your own pair of dice and I tell you before you roll them that the sum is fourteen."

Andre took the dice from his pocket and rolled them on the dusty stone floor. A one and a four were on the topside of the dice.

Olin said, "The bottom side of the die with a one is a six, and the bottom side of the die with a four is a three. The sum is 1 plus 4 plus 6 plus 3 equals 14, as I said

before you rolled them. That is because the sum of the numbers on the top face and bottom face of any die is always seven. That is the way dies are made. And because they are made that way each die will always be worth a value of seven."

Andre was surprised. "I have never before heard that dies are made that way."

Olin smiled. "How remarkable that so few people know such a simple thing, even grown men that play craps. For some very strange reason they think that if a roll results in a random number between one and six appearing on the top of a die, the bottom result will also be random. In effect they believe the impossible without giving it a second thought. Unfortunately that is a very common affliction. It is called the "Law of Eighty Percent". This law states that 80% of the time 80% of the people will be thinking or doing something foolish. I will make you a list of what the total is for the pairs of dice that you use. Now, do not ever use just one die or ten of them because it would be too easy for people to figure out that each one adds up to seven."

"What else can I make money with?" Andre asked somewhat greedily.

"You can tell jokes."

"I don't know any jokes."

"Well, here is one for the women. This is because women are not allowed to vote and this joke is about politicians. Be sure there are women in the train car and then ask the men if they think all politicians in office are crooks. They are certain to agree. Then say that you know how to correct that situation. Tell them to very carefully choose the person that they believe should be next elected and then go to the polls and vote for that man's opponent as he is certain to be the best man as past history has proven. Now, the men might give you a kick in the ass over this but the women will give you many coins as that is their argument for suffrage, or the right to vote."

Andre had visions of the money that he would make with the stories, mind reading tricks and jokes. He became eager to leave for the train depot, board the next train and try them with the passengers.

Glancing out the large open doorway of the maintenance barn Olin spied Mr. Martinmon trudging up the street from his office that was located about a hundred yards away. Olin stooped to pick up a large piece of coal that had fallen without burning from the forge and then stood and pitched it against the side of the railroad car that he had been repairing. The sound of the coal hitting the side of the car startled and awoke Paddy who had been sleeping beneath it. Olin began pulling on the bellows chain to bring the forge fire back to full heat.

"Listen," he said to Andre, "you must share your profits with me for having told you of these things."

"How much do you want for a share?" Andre asked with some anxiety.

"One penny for every ten pennies you get."

Andre's eyes brightened for he had thought that perhaps Olin would want a half share. "Sure, OK," he readily agreed. He was on his feet and eager to depart immediately so as not to give Olin time to change his mind and ask for a bigger portion of the profits.

Olin stopped him. "Wait, Andre. There is one more trick that I can tell you quickly. You have drinking glasses for your water and you can find flat pieces of scrap

cardboard or thick paper large enough to cover the top of the glass. Fill a glass completely full of water and press the paper down upon it. Holding the paper turn the glass completely upside down. Then let go of the paper. The water will stay in the glass and not spill out, like magic."

Andre stood speechless for a moment. "You're crazy. That would have to be magic," he stated.

"I have already told you that there is no such thing as magic. Go try it. You will see if I am crazy or not. Now get out of here as Martinmon has returned."

Andre went skipping happily towards the large doorway and smilingly greeted Martinmon as he was entering. "Hello, Mr. Martinmon."

The man reached out quickly and grabbed Andre by the back of his shirt collar. "What have you stolen from the barn?" he gruffly demanded to know.

Andre was on his tiptoes as Martinmon yanked his collar upwards. "Nothing, Sir! Why do you think that I have stolen something?"

"Because you have never smiled at me before. A man should always be suspicious when someone starts smiling at him. What are you trying to cover up with your tricks?"

"Please, Sir, I am just happy today," explained Andre. "I promise that I will never smile at you again."

Martinmon slapped Andre's pockets to see if they contained anything that the boy might have taken by theft. He felt something in the right front pants pocket and reaching into it he pulled out a small folding knife that obviously did not belong to the railroad. He released the boy's collar and handed him the knife. "Get out of here you little cutthroat and take your murdering dagger with you." Andre took off running.

Olin continued pulling the bellows chain and the forge coals glowed red and yellow as the hearth emitted hot gases. The rivet lying on the coals also began to glow red with heat. Mr. Martinmon stopped to inspect the work of several laborers that had been replacing a drive wheel on a locomotive. Satisfied with the progress of work he turned and walked over to the forge.

Olin defended his friend. "Andre is not a thief."

"I know that," Martinmon smiled. "I was just scaring the temptation of it out of him."

## Chapter 4

Martinmon asked with buoyant anticipation, "Do you have another one to bet on?"

Olin knew that he was asking if he had thought of something that he could do that people would bet that he could not do. Olin nodded affirmatively and replied, "Tell them that I can move a fifty pound section of train track five feet in distance using only the thinnest thread."

Martinmon's expression brightened. "I like the sound of that." The man mulled over Olin's proposition. "Move a fifty-pound weight with a thin thread. That sounds impossible enough. So impossible that maybe I will bet against you."

Olin smiled. "I would not recommend that, Sir. Because if you believe that to be impossible then you will find what I say next to be beyond impossible. The thread will never touch the section of railroad track while it is causing it to move."

Martinmon stared at Olin for a moment as he attempted to comprehend what the youngster had said. "I believe that the townsmen will be rather interested in seeing how you accomplish such a thing, and myself also."

Their seemingly strange conversation was the result of the fact that in 1853 there were precious few sources of entertainment for the public, and the local businessmen were quite willing to bet ten dollars each month on something that would provide a source of innocent and intellectual amusement. They were fairly confident that they would lose the bet because Olin had always been able to do what he said he could do regardless of how impossible it seemed at first thought and the men simply viewed their cost of it as an admission fee for an entertaining event.

Olin's share of the money would be four dollars for each person that bet, a goodly sum for such a young boy. Mr. Martinmon took sixty percent for locating and gathering together the businessmen and other leaders of the community. Further and more importantly, he was Olin's superior.

The group minus Olin would meet one Saturday evening each month for supper, drinks and cigars at the local inn before walking slowly up to the train maintenance barn, as it was there that Olin performed his seemingly impossible demonstrations. Regular members of the group were Dr. Herman MD, the Reverend Kertabit who was the pastor of the Church, Mr. Scalodi who owned the hardware store, Mr. Perkins who was the president of the local bank, Mr. Sprichen who was a teacher of English, Mr. Will Hiram the lawyer and Mr. Hastings who was the mayor.

The noise of excited adolescent voices drew the attention of Olin and Mr. Martinmon to the large doorway where Andre and several other boys were whooping and laughing aloud. Andre had found a piece of scrap paper and using a full glass of water he had done as Olin instructed. Andre was holding the glass upside down and the water was not running out of it. The boys could hardly believe their eyes and were laughing gleefully. Olin smiled to himself because he had earned twenty dollars from the townsmen with that demonstration.

"That reminds me," Martinmon said as he viewed the boys, "that I am not sure I understood how you did that yourself a while back."

Olin assumed that he was asking for another explanation of the reason the water stayed in the overturned glass. "It depends upon the fact that the air of the atmosphere has weight and at sea level the resultant pressure of the atmosphere upon any object is 14.7 pounds per square inch."

Martinmon had a puzzled look. "How do you know that air has weight?"

"Well if it did not then sailing ships would not be blown across the oceans. If it can move mighty ships it must weigh something." The man could not deny the logic of it.

Olin continued the explanation. "Imagine water inside a vertical glass column 34 feet tall. Closed at the top and open at the bottom. If the inner cross sectional area of the tube is one square inch, then the water in the tube weighs 14.7 pounds."

Martinmon pondered the image of a tall glass tube, closed end upwards, containing such a column of water and at last shrugged acceptance of the possibility that Olin might be right, which he was.

Olin continued the explanation. "Thus, a water glass could be 34 feet tall and atmospheric pressure would still just barely keep the water from spilling out the open end when it is covered with a piece of cardboard. The reason is that there would be a weight downward due to water of 14.7 pounds per square inch and a pressure upwards of 14.7 pounds per square inch due to the weight of air, and the two would just balance out. In the case of a small water glass the upwards force is by far much greater than the downward force so it is quite easy for Andre to perform the feat."

Martinmon contemplated the balance of forces and finally gave a slight nod to indicate that he accepted the concept.

Olin proceeded on. "Now, you might remember that I had explained to the townsmen that what millions of people call a hand operated water "lift" pump was actually a "vacuum" pump. But it is not the pump's vacuum that "pulls" the water up; it is atmospheric pressure upon the water table that "pushes" the liquid up the pipe. Such a pump cannot obtain water from a well that is more than 34 feet deep because that is the limit of the water column that could be supported by atmospheric pressure. Deeper wells can only have their water drawn by bucket, rope and windlass."

Martinmon grunted. "That is all well and good and I think that I might retain some part of what you said. When will you make your demonstration with the thread and railroad track?"

"I will be ready with the demonstration tomorrow evening at six o'clock. But you must pay me an extra dollar. I will have to give fifty cents each to two of the laborers to help me put the fifty-pound railroad track section in place."

Mr. Martinmon turned to leave and spoke over his shoulder. "I will pay four bits of it and you pay the other fifty cents."

After he left Olin walked over to the laborers working on the locomotive. He told two of them what he needed help on Saturday evening and they agreed to do it for ten cents each. Olin felt no need to so inform Martinmon.

The usual workweek was six days of twelve hours each. Clocks were extraordinarily expensive and no laborer owned one by which he would know the hour to rise for work or the time to quit it. The town employed both a day and a night warden and they had several duties. One of these was to observe the time on the face of the

clock in the town hall during the course of the day and night, and to ring the large bell in the tower of the building tolling out each hour and half hour. Having heard this bell ring throughout the days and nights for all of their lives the townspeople though seemingly fast asleep, could if awoken abruptly announce the time within fifteen minutes of its correct value.

The next Saturday afternoon as the Town hall bell tolled out the time of five-thirty in the afternoon Olin prepared to set up the demonstration of the railroad track that was to be moved by a thread that never touched it. Olin's first task in the process of setting up the demonstration for the townsmen was to place a coil of rope over his shoulder and climb the wooden ladder to the rafters of the maintenance barn. The two laborers that he was paying to assist him watched from the floor while he ascended. The cross-tie beams of the barn were forty feet above the main floor. The ends of these massive and long beams were pegged into the top plates of the walls and served to prevent the walls from collapsing outward under the weight of the roof. Olin shuffled out along a beam for a distance of about ten feet. He then tied one end of his rope tightly around the beam and he next dropped the remaining coils of the rope down to the laborers, it being long enough to fall to the floor at their feet with about six feet of length left. Olin shuffled backwards on the timber to reach the top of the ladder and then climbed back down to the barn floor.

He walked over to the loose rope end and coiled it in his hands as he nodded to the laborers that they should lift the railroad track section and hold it about four feet above the floor level. Olin tied the loose end of the rope securely around the middle of the track section using several double knots to secure it. The laborers then slowly released the length of iron and it hung roughly level in space. Olin paid them their money and told them he would see them Monday morning when they would have to hold the track again as he untied the rope.

They tarried and he guessed that they wanted to ask him why he wanted a section of railroad track hanging in air. "Never mind why. I will see you on Monday morning and I will tell you then. Twenty cents will buy some good ale, now won't it?" The thought of foamy brew at the end of a long workweek was sufficient motivation to cause the laborers to eagerly depart the train barn for the tavern. As Olin watched them leave he remembered that Benjamin Franklin had once said "I know that there is a God because we are allowed the ability to brew beer."

Olin walked over to the large open doorway of the maintenance barn and looking down the street he could see a group of men approaching. When they had entered the train barn Mr. Martinmon called attention to the suspended section of railroad track. "Well, Olin, do I spy a fifty pound piece of steel that you will move five feet with a thin thread?"

Olin nodded affirmatively and the group approached it for closer inspection.

The bank president Mr. Perkins gave it a push that set it into swinging as a pendulum would. He turned to Olin. "Lad, it resists a push greatly so I think that you can not move it without breaking a thin thread. However, you are a wily one to suspend it instead of resting it upon the ground as I assumed it would be. That will teach me for the thousandth time in my life, not to assume anything."



Olin removed a spool of thin black thread from his pocket. His aunt, Henphra, had happily provided it to him when she learned of his intended use for it. He had promised that he would not break it and would return it to her with its full length intact and rewound about the spool.

"Have you Sir, taken possession of their money," Olin asked Mr. Martinmon jokingly. "I trust them one and all with my life but not for a moment with my coin."

Mr. Martinmon laughed. "Their knuckles are white because of the tight grip they have upon their beloved gold. Not a man of them will relinquish that which is held so dear by them until they see the thin thread move the mighty iron weight without touching it."

"Well, I hope their fine supper and brandy does not nod them off before their eyes confirm the feat I am about to perform," Olin said with a smile. He grasped the steel track and held it until it became stationary while hanging directly beneath the rafter. He then removed a small horseshoe shaped magnet from his pocket and tied the thread firmly to the center of its curved section using a bow knot which would later allow him to retrieve all of the thread unharmed. He then reached out with the magnet and allowed its two prongs to attach to the end of the heavy track. The men laughed as soon as it became apparent how Olin planned to move the steel track without the thread actually touching it.

The group moved backward about ten steps with Olin carefully reeling out the thread from the spool as he went. When all were attentively watching he pulled gently upon the thread and then allowed it to slacken slightly. Nothing appeared to happen to the heavy steel track. He again gently pulled the thread taut and then released the strain. There was absolutely no perceptible movement of the rail.

The English teacher Mr. Sprichen was jubilant. "Ah ha, for once we will win! He can not move the track."

Olin allowed a worried look to appear upon his face. Seeing this Mr. Martinmon's countenance took upon an air of defeat. "Come on now lad, come on. Keep at it lad, keep at it," he advised.

Olin had no intention of doing otherwise. He repeated tugging lightly upon the thread and then slackening it. As time went by his look of near despair provided both joy and false hope to the assembled men, except for Mr. Martinmon who expressed neither joy nor hope. Olin was purposely tugging with less tension than would be required to cause the steel track to move even the slightest amount. If he accomplished his goal too rapidly then in the future the men might not be quick to bet against him. He wanted them to leave this evening with the belief that they had almost won the bet and that perhaps they would win the next one.

He increased the tension of the pull with moderation. He had to be very careful not to pull so hard that the magnet was removed from the track or that the thread broke. He concentrated closely upon the steel track because he would need to pull when the track moved ever so slightly towards him and then go slack on the thread as it swung away. The men began to joke and laugh among themselves in assumed triumph and Mr. Martinmon became ever more concerned that he would have to pay off the bet.

Olin now concentrated and pulled just hard enough to cause a slight movement

of the track and he was quite confident that he would successfully achieve the result that he desired.

"Wait, wait! Look, look! It's moving!" Mr. Martinmon yelled out happily.

And it was. The heavy steel track was oscillating back and forth perhaps only a tenth of an inch, but it was moving. Olin synchronized his gentle pulls to enhance the swing in his direction and then slacked off when it swung away again. Soon the extent of the swing was a full inch. Olin was extremely patient because he did not want to snap the thread or pull the magnet free and lose the bet because the swing was not yet a full five feet.

The extent of the swing steadily grew and the men realized that once again they would lose. But they were not annoyed by it. They were entertained and amazed at the sight of the massive section of steel track moving under the extremely weak pull of the thread and they would have a tale to tell to their family and friends. Soon the swing became a foot in length and with Olin's continued precise tugs it was not long after that all agreed, with some light applause, that the steel track was oscillating over at least a five-foot swing. Olin pulled the thread sharply and the magnet came free of the track which he allowed to swing back and forth of its own accord.

As the pendulum continued to swing to and fro Mr. Sprichen expressed curiosity. "How do you explain it? How do tugs of very little force finally cause the massive track to swing in such a manner?"

"Well, little things can add up to a lot. Enough pennies one by one can finally add up to a dollar. As long as the rope that holds the track does not use up as much energy by friction due to its stands rubbing together as I add with each small pull of the thread, the total energy of the swing will grow with each tug. I could guess that if I had a fine silken rope that it might be possible to obtain the same amount of swing by puffing breaths of air against the end of the track." The men expressed some astonishment at the claim but not enough to cause them to wager that Olin could not achieve the stated result, as he had never failed to accomplish any goal that he set.

Olin made a startling comment. "If the weight of a pendulum is changed it will not change the time of the swing. That is due to the fact that all weights fall at the same rate and you owe your lives to that fact." There was an outburst of astonished voices at what appeared to be an extremely ridiculous statement by Olin.

"You have gone insane! Great weights must fall faster than small ones. Prove what you say," insisted Sprichen.

"I will prove it for a dollar more from each of you, including yourself Mr. Martinmon."

The men glanced at each other briefly and then united in giving their agreement.

"This I must know," said the mayor.

"Have you ever jumped down off of a wagon to the ground?" Olin asked the group.

Martinmon blurted out, "Of course. Who the hell hasn't?"

Olin asked the next question. "Do you agree that the various parts of your bodies weigh different amounts? For example, is it not true that the strands of your hair are lighter than your bones? Is it not possible that your hearts weigh less than your

stomachs that are now full of the inn's good food and brandy?"

The lawyer Will Hiram detected the path that Olin's argument was taking. "You are right Olin. My hair did not get pulled out of my scalp because my heavier body was falling faster than the strands of it. And neither did my heart rise up into my mouth because my rotund midriff was exerting a severe downward pull upon the rest of my body. Nor did my bones push out through the skin of the soles of my feet. All parts of our bodies must fall at the same rate. As with a falcon that dives from the sky. Or a baby that is tossed up playfully to be caught in our arms as it falls. The logic of this is so very obvious that it is astounding that we grown men, now a dollar each poorer, could live our lives to this point and then require a lad to teach us such a simple lesson."

With some concern that the men might feel insulted by his revelation of their failure to think the process through on their own he made an observation. "You are still in good company as I am sure that Aristotle had jumped down from many ox carts without giving it a second thought, but he taught that different weights fall at different rates."

The statement did serve to improve their demeanor as they smiled and nodded agreement to each other at the truth of it. Misery loves company. The group had been well entertained and happily paid their money over to Mr. Martinmon, except that they all paid an additional dollar each directly to Olin. Someone produced a flask of whiskey and passed it about the chuckling group of men.

The Reverend Kertabit laid his hand upon Olin's shoulder. "Well done my lad. But remind me now, have I seen you at church on Sundays?"

"No, Sir," Olin responded in a polite tone of voice.

The pastor frowned. "Are you not God fearing, Olin?"

"I believe in God, and very much so," declared Olin.

The pastor was perplexed. "Then why are you absent from church then?"

In Olin's mind there was the strong self given advice not to discuss religion or politics with these men. He did not take it. "Reverend Kertabit, I mean no disrespect to you or your congregation. But, I believe only in God, and not in angels of prophets."

The Reverend Kertabit's face flushed red and displayed a poorly concealed hostility to Olin's statement. He led a Christian congregation and the large cross within it bore the letters "IHS" that translated to "Jesus, Humankind's Savior".

Olin now was very much aware that he should never have said what he did. He made an attempt to recover the situation. "Sir, please accept my apology for having been rude. My aunt Henphra is a member of your congregation and I know that she is a devout Christian. In our town there are many good Christians and I hear them speak well of your sermons. However, my mind tends more to scientific things than to those of religion. I can say with surety that if ever I attend a church it will certainly be yours."

Reverend Kertabit contemplated Olin with seriousness. "In the meantime I will pray for your soul in the hopes of retrieving it from the abyss of eternal damnation. But mark you this, there is no way to the Father except through Christ." He turned away and walked over to join the other men that were preparing to walk back to town.

Mayor Hastings observed Kertabit's scowl. "Is something troubling you Reverend?"

"Olin is being grasped by the hand of the Devil," stated the minister with a tone of certainty.

Martinmon was shocked by the words. "Surely not such a decent lad as himself!"

Kertabit shook his head in disgust. "I may be able to save Olin but I have a greater worry. The congregation is putting very little in the plate in recent times and I must skimp along on miserly amounts." He cast his glance upwards and muttered dejectedly, "It is as if God has forgotten how much I have done for Him."

After Mr. Martinmon bade good evening to the group of townsmen he walked back over to Olin. The man's forehead was furrowed with displeasure. "What remark did you make to the reverend? He appeared quite annoyed about something."

"I told him that I was not a Christian," Olin replied.

"What the hell are you talking about?" Mr. Martinmon exclaimed with some emphasis. "We are all damn Christians, the whole lot of us! Why the hell did you say such a thing?"

"Because I was too stupid to hold my tongue," Olin confessed. "From what I read Christians are often in an overly great hurry to burn people at the stake and I suspect that Reverend Kertabit might wish the same fate for me."

Mr. Martinmon answered disgustedly and heatedly. "Of course heretics should be burned at the stake! It is God's will. All that are not Christians are heretics or atheists and are all the better off burned for the sake of decent society. Now, mind you lad, you are on the road to hell with your talk and if you value your employ here then you must either attend Kertabit's church or keep your damn mouth shut on the subject. I do not want you infecting the minds of the other laborers with your godlessness."

"I will keep my mouth shut if those are the only two choices for me," Olin assured him. "I am certainly sorry that I ever opened it upon the subject. I have read something written by a Mr. Henry David Thoreau, that was titled "A week on the Concord and Merrimack Rivers" which he published a few years ago. I think that Thoreau called himself a "pantheist". That is a person that believes in God but who does not belong to an organized religion."

"That is one man against the whole of religion," Martinmon observed.

"Well, there were actually others," Olin informed him. "To name a few there were Benjamin Franklin, Thomas Paine, John Adams and Thomas Jefferson. They referred to themselves as "deists". It amounted to about the same thing."

Martinmon hesitated before responding as he was stuck between his belief in and love for the Christian Church, and the renowned names of men whom he was loath to disparage. Finally he replied in a fatherly tone of voice. "It has been said that we have enough religion to cause us to hate one another, but not quite enough to cause us to love one another. Listen carefully to me Olin. Keep you mouth shut on the subject of religion."

Olin nodded his understanding of the advice, bade good evening to Mr. Martinmon and left the barn to begin his walk to town. He mused over the fact that he had read several books that were written upon the subject of religion, including the Bible, and that the end result was that while he felt a belief in God he was not necessarily interested in organized religion. He knew that there were many good

people, his aunt and her family among them, that seemed to require and appreciate organization and leadership for their religious beliefs and he was sure that the Reverend Kertabit served them well in that regard.

But he remembered that sometimes religion could clash with science as in the instance of Benjamin Franklin and his invention of the lightning rod in the 1750's. Franklin's device saved lives and buildings but brought the ire of the church upon him. It was widely held that lightning was evidence of the wrath of God and that it struck when and where it did at God's command. To interfere with it was declared to be sacrilegious. As a result many devout churchgoers had to forego the lightning rod and hunker down fearfully in their dark cellars during violent rainstorms while their heathen neighbors stayed in the safety and calmness of their protected parlors.

Olin was experiencing pangs of hunger when he entered Henry Macnock's General Store. As he browsed the store's shelves and counter tops his gaze fell upon packages of chocolates, tea and coffee wrapped in tin foil. The manufacture of metal foil had begun in the 1840's but Olin was still amazed that any metal, aside from malleable gold, could be worked into such thin yet strong sheets. It served very well to keep products safe from humidity and allowed tea and coffee to retain their aroma and flavor. He guessed that very many uses would be found for the foil but he could not possibly foresee that in December 1877 Thomas Edison would employ it to make the first sound recording, which would be of the words "Mary had a little lamb".

A young woman named Mary Eldor was also in the store and he noticed that as she needed matches she had just picked up a package of the phosphorus type. These had been invented by A. D. Phillips in 1836 and were manufactured by L. C. Allin and company.

"Miss Eldor," he addressed the woman, who was perhaps thirty years old and of pleasant appearance. "You should be careful to assure yourself that those matches were manufactured using red phosphorus." The woman looked at him, looked at the matches and then looked back at him in mild confusion.

"Some matches are made of white or yellow phosphorus and are called "parlor matches," he informed her. "Those have two very significant dangers, which is what caused me to speak to you. The first danger is that they have an extremely low kindling temperature and it is not unusual that when they are carried in a man's pants pocket that the friction of their slight rubbing together ignites the matches and shortly thereafter the clothes of the bearer, much to his surprise, harm and embarrassment. He then has an immediate need to disrobe in public due to burning flesh."

Her eyes opened wider at the thought of a person's clothes being on fire. "Thank you for the warning," she said. She silently fantasized regarding a smoldering naked man.

"Additionally," he continued, "white phosphorus is extremely poisonous and great harm has come to a number of workers in the match industry. They are called "parlor matches" as they are extremely easy to ignite, flare up rapidly and emit a plume of smoke that has a very disagreeable smell. Since men, as you might guess, are ever in search of something to either impress or annoy the ladies, they take every opportunity to light off matches at dinner parties and other gatherings. That is altogether

entertaining to them, as many are not aware of the toxicity of the cloud of odoriferous hot fumes. If someone lights such a match in your presence you should hold your breath and leave the room."

Mary Eldor smiled. "Thank you for your information and much appreciated warnings. Are these the safe kind of matches?"

He looked at the label on the box and then assured her that they were. She thanked him and went to pay for her purchases leaving Olin to his thoughts. Matches had been a great convenience to households that in the past had used steel, flint and tinder to light their fires. Olin was aware that tinder had been made by placing old bits of linen in a metal box, closing it and then putting it into a well-lit fireplace. The linen charred black in the absence of oxygen within the sealed tin, but the result was that when cooled and exposed to air it's kindling temperature had been significantly lowered. It was so low that a simple spark from flint and steel would cause it to glow with a red burn that could be blown into full flame to ignite wood chips or straw. It struck Olin odd that something that had been charred now burned more quickly than when it possessed freshness.

He approached the store's glassed enclosure of meats and cheeses and gazed into it. He bought most of his foods at Macnock's store because the man took some care to keep houseflies from his unwrapped victuals to prevent their vitiation. The word "perception" entered his thoughts, as he believed that almost everything in life depends upon how people perceive things. A month earlier his aunt had requested that he purchase a fish for the family supper that he was to attend as a guest. Upon entering the fishmonger's shop he had been aghast at the number of houseflies that were milling about and upon the uncovered fish that were on display. "Why do you not cover your fish or put them behind glass to prevent the flies from landing upon them?" he had asked the monger.

"Flies are God's creatures," the man had answered, "and are no different from other insects such as honeybees or butterflies. The bees feed upon flower blossoms and take but little away and leave behind no harm to the blossom. So too the flies eat little of the fish and seem to hurt it not at all. It is not like the rats that gnaw upon it." The man had been incapable of perceiving that some small insects are benign while others carry disease. Olin had left the fish shop in disgust at the man's ignorance of hygiene and procured a fresh killed chicken at the poultry shop for the supper. Upon seeing the bird his uncle Alvin had complained at length that his desire had been for fish and that Olin's aunt should not again send a fussy eater to shop for food.

As Olin raised his eyes from the array of smoked meats and fine cheeses inside the glass case of Macnock's store he met the gaze of Judy, Mr. Macnock's granddaughter. She was but a month older than him, a pretty blue-eyed brunette with a very enchanting smile. He found it easy to smile back at her while asking for a quarter pound of the salami, and the same of the white cheddar cheese.

She removed the salami from the case and deftly sliced off a section and placed it upon the scale. It tipped the balance at just barely less than a quarter pound. She then added a thin slice to make up the difference. She wrapped the meat in paper and then she quickly sliced a section of the cheese but finding it also slightly light in weight she

added another very thin slice to make up the difference. He knew that she always first underestimated the weight of a slice and then to make up the difference she added some extra to it. Always. He guessed that she had a good reason for doing that. Olin enjoyed watching her at work. He enjoyed watching her at any time. He gave her some friendly advice. "You should be careful that you do not make the knife blades too sharp for the cutting of the meat and cheese."

Judy was slightly taken aback in mild confusion. "How can a knife blade be too sharp?"

He responded with a little story. "Well, there once was a fur trapper who lived in a log cabin in the White Mountains, not so very far from here. Because he had to skin the many animals that he caught in his traps he was always sure to maintain a keen edge on the blade of his favorite skinning knife. During one very sunny but frigid day in December he used his grinding wheel in his cabin to put a fine edge upon the blade. Holding it up and observing it in the bright sunlight streaming in through the window he believed that with more work he could give the edge even greater keenness, in fact keener than ever before. So he kept his nose to the grindstone and very carefully worked the blade over the whirling wheel of fine grit. Finally he achieved a gloriously sharp edge to the blade. It was in fact so sharp that when he held it up in the sunlight again, the bright reflection of it from a mirror on the wall sliced through a loaf of bread that was upon a table."

Judy burst out laughing at the absurd image of a reflection from a mirror having such an effect. She was pretty, honest, industrious, smart and enjoyed laughing. None of these attributes and traits escaped Olin's notice, as they were the reasons why he loved her. She placed the cheese upon paper and wrapped it. As she handed his purchases to him he purposely and gently touched her hand. "Some day when I am a rich prince, Judy; I will bring you to my castle."

She blushed happily and jokingly taunted him. "Beware that you are not too long in the doing of it because there are other princes lurking about."

Olin smiled good-naturedly but he was not pleased by the thought of competing suitors.

"Why do you do it?" he asked.

"Do what?" She thought perhaps he meant her mention of the other lads that were seeking her attention, and she hoped that he was jealous.

"Always slice too little and then add some more to make up the full weight on the scale?"

"My grandfather has noticed things over the years," she said, "and one of those is how customers are affected as they watch the weighing of their purchase. If I first cut too thick," she explained, "and then have to remove the purchase from the scale in order to slice some off, then the customers feel somehow cheated. It is cut to the weight that they ordered when I place it back upon the scale, but they have the feeling that it is actually less."

He was astounded. "That is nonsensical."

Now," she continued, "if I slice too thin and seeing that, I leave it upon the scale and add yet another slice, then the customers seem to believe that they have gotten a

little extra for free.”

“Are you joking with me because I joked with you about the mirror reflection slicing bread?” Olin asked.

“No,” she smiled. “My grandfather and myself do not understand it, we just do what makes customers happy.”

He smiled as he shook his head in mock disbelief. “Goodnight, Judy, and thank you for the very weird insight into the minds of the citizens here about.”

He paid for his purchases with silver and copper coins and left the store after once more bidding goodnight to Judy and her grandfather. He walked the short distance to the bakery to buy his bread and then continued on to the library where his aunt had already closed up and left for the evening. He needed only to be careful that he was not seen entering the building while using his spare key. The library was located on a side street and Olin had no difficulty getting inside unnoticed. He went directly to the storage room at the rear of the building and prepared to eat his supper while reading by candle light at a small table.

He read all that evening and the entire day of Sunday. He was very much interested in the forces generated by the expansion of water when it just froze into ice and found this to be an enormous pressure of about 1,400 pounds per square inch, or 100 tons per square foot. Olin pondered the information and became sure that he could make use of the great forces that occurred as water froze to ice. To have such a tool that was both free and easily at hand and not use it would almost be sinful. He set the book down and allowed his thoughts to dwell upon the various accomplishments that might be achieved if he simply employed science towards productive ends. A series of images began to form in his mind that he at first thought were absurd ideas, too far reaching to be believable. But the longer he dwelled upon them the more clearly it seemed that they could be realized if he was willing to take chances and to risk his life's savings.

Early on Monday morning Olin was awakened by five strikes of the bell in the tower of the town hall. He arose and slipped out of the library without being seen and walked to the railroad maintenance barn. Mr. Martinmon was already at the barn and instructed him that he was to work on the replacement of worn axle journals on passenger cars. Martinmon had in prior days personally supervised four laborers in the removal of wheels from several railroad cars, as he was particularly aware of the need for careful and safe work during such a task. It was not entirely rare that a heavy steel car wheel would tip and fall upon a laborer's foot or leg. The result was a complete shattering of the bones that left no medical alternative to amputation.

Very often it would be infection that would claim the life of the worker as it had only two months earlier. A laborer named Gerlad Richmond had experienced the misfortune of crushing two fingers in the valve port of a locomotive steam drive cylinder. The doctor had wanted to immediately amputate them both back to the next good knuckle under antiseptic conditions and thus be rid of the befouled flesh of the wound but Gerlad would not consent. He feared yet greater pain and even though they said that they would get him completely drunk on moonshine whiskey, he could not bring himself to allow it. The tetanus bacillus thrives throughout the environment and in the



following days it had easily taken hold in the wounds. Its toxins began causing horrific muscle spasms, first at the fingers and then relentlessly throughout his entire body, especially in his jaw and face muscles. It was the dreaded "lockjaw" and it had caused him to die in a series of severe convulsions.

Olin was sure in his mind that if ever he accidentally crushed one of his fingers that he would immediately walk to the forge fire and jam the stub down into the red hot coals to sanitize and sear shut the wound. To begin his morning's work he picked up a Moncke wrench and adjusted its screw collar until the jaws closed tightly on a journal-retaining nut. He attempted to loosen the rusted nut by hauling upon the wrench handle while leaning backwards and digging his heels into a crack between the floor stones. But it failed to provide adequate leverage. He laughed inwardly that he probably had looked like a monkey pulling upon a monkey wrench.

At this moment the substantially heavier Paddy Cronin approached. "Do you want me to pull on that monkey wrench?"

"No, Paddy. I am going to get a section of pipe for leverage." He stood up and walked towards the tool storage bench as Paddy accompanied him.

"Olin, you know how the men like to send the new helpers for buckets of steam and such foolishness? Well, how is it when they say to go get a "monkey wrench" that there really is such a thing?"

Olin reflected upon the odd fact that sometimes a person could manage to immortalize his name into the minds of future generations by performing a memorable deed, and at other times a quirk of fate would erase it from the history books.

"Paddy, the inventor of the wrench was Charles Moncke and he was a London blacksmith. And he had invented a truly useful tool. Unfortunately, the pronunciation of his name is "mon-keh" and it sounded like monkey to the American ear. So while millions of people know what a "monkey wrench" is, very few know who Moncke had been."

"Is that just crap you are telling me?" asked Paddy in suspicion that Olin was playing a joke on him.

"No Paddy. It is the very truth of the matter."

He set the wrench down on the tool table. He knew from experience the jaw size he needed for an open-end wrench that would fit a journal nut and he selected the proper one. The wrench had a jaw opening to engage the nut and the remainder of the tool consisted of a stout long handle for leverage. Armed with adequate leverage due to the length of the wrench he managed to break loose and turn the nut upon its rusted bolt threads.

Paddy Cronin watched this work with some interest. "It is so strange that iron rusts. You might guess that they would make an iron that would not rust and save everyone a lot of trouble."

Olin continued to turn the loosened nut with the wrench. "Paddy, rust is the natural state of iron. It is called iron oxide. So iron ore is actually rust ore. Now, great furnaces are needed to heat the rust ore until the oxides are driven off and pure iron remains. But from the very moment that the molten iron cools it begins to oxidize again. It desires to return to its native state. And more so if there is water or salt about. I have

seen it written Paddy, that one seventh of all new iron manufactured each year goes only to replace metal structures that have rusted out during that year.

The strange thing is that I have used my iron tools for years and they still serve me well. But if I had let them lay idle out of doors and in the rain and snow that amount of time they would have long since worn away with rust more than the metal I have worn away with heavy labor by working upon the trains. With almost all things idleness brings deterioration." Glancing at Paddy he realized that the man did not know what the word "deterioration" meant. "It means that idleness causes things to become useless." Olin returned to the task of removing the damaged journals and then replacing them with new hardware. With Paddy's help the task was soon accomplished.

Several weeks passed and the season moved into early autumn. One morning Mr. Martinmon entered the maintenance barn carrying a folded newspaper. He walked to Olin and unfolding the paper he pointed to an item on the first page. The article was a report upon the trial of the Railroad Corporation in regard to their alleged negligence having resulted in a derailment. The barrister Benjamin Butler, had moved quickly to trial and had convinced the jury, by means of a hammered end of a snapped axle, that the defect had occurred suddenly due to the coal tender striking a work wagon that was heavily loaded with granite stone and that had rolled too close to the track. He called an expert of metals to testify upon the effects of stress concentration due to manufacturing ridges made upon axles by machining tools and to explain how a sudden impact could initiate a crack and lead to rapid failure of the axle.

Mr. Butler had measured the circumference of the tender's wheels and noted that the number of revolutions of the wheel, from the place of the strike to the place of the derailment, was nearly equal to the number of strikes by a fourteen-pound hammer that was needed to simulate the failed axle end. Thus, he had successfully argued it was the slamming together of the walls of the crack by the turning of the wheels that caused the hammered effect in a short period of time and not over months of time as was argued by the prosecutor.

Olin guessed that contentment reigned in the White House and he also slept well that night.

The season turned to late fall and Olin now appreciated the heat of the forge during the long workdays. On some occasions Olin would sleep in the maintenance barn at night next to the forge. Rather than trudge to home or quarters in the cold most of the other laborers would join him. They talked of many things during those evenings and often Olin would tell of the stories that he had read. He could not explain it to himself but Olin very much enjoyed relating the adventurous tales that he had discovered in reading books, but then that was perhaps why books are so loved. One can travel to exotic lands or experience fierce battles while safely ensconced at home or in a library.

Paddy Cronin had joined Henphra's reading classes and was making some good progress. The other laborers were entirely illiterate and marveled at the world that was open to people that could read. They vowed to a man that they would expeditiously join the reading classes but the time of their joining never seemed to arrive. Olin continuously encouraged each and every one of them but he came to realize that only

Paddy had the necessary initiative.

Olin's employment with the railroad appeared secure because the building of rail lines in the first half of the 1800's had led to the development of posh hotels and resorts in the White Mountains of New Hampshire, and these in turn led to increased passenger traffic on the trains from Boston and other cities. This required more trains to transport the wealthy vacationers and that meant more train maintenance work for Olin and the laborers at the train barn.

While encouraged that his own fate was entwined with the successful expansion of the railroad he had concern for Andre and the other four orphans. They still had to slink into farmer's barns during the winter nights in order to sleep out of the weather. Large animals such as cows gave off considerable body heat and the decomposing manure piles supplied yet more warmth. By the means of the animals, the manure and the hay the boys managed to fend off frostbite but Olin counseled Andre that he and his friends should always keep their socks dry because it was wet and cold toes that could most quickly lead to frost damage to their feet.

In prior times the boy's diet had been extremely poor consisting principally of any beets, turnips, corn, or potatoes that might be stored in the barns and these they usually had to eat raw and cold. Now that they were earning additional money from mind reading tricks and story telling they could afford some better food. While Olin could detect that the boys were gaining weight he applied considerable thought as to how he might improve the lot of the boys further and an idea was beginning to form in his mind. But it would be months into the future before he could bring it to fruition.

On Thursday, November 24, 1853, a man strode into the train barn and stopped to cast his glance over all of the workers that were present and occupied with various maintenance tasks. By the type of clothes that he wore it was apparent that he was a man of labor and not a railroad supervisor. He spied Olin engaged in the work of repairing a passenger car step. He strode over and stuck out his right hand. "I think that you are Olin Collins. I am Lloyd Adept."

Because Olin had never seen the man in his life he was slightly taken aback that the brawny, honest appearing, late middle-aged man knew his name. He grasped the outstretched hand. "Do I know you, Sir?"

"No, we have never met, but a good man described you to me. While you do not know me you have given me great peace of mind never the less."

Olin inquisitively cocked his head slightly to one side and awaited further clarifying information.

Lloyd explained. "I was the axle ringer for the Concord bound train out of Boston that derailed and killed the president's son. I was certain that all of the axles had rung true and that it was safe to release the train. When I heard of the derailment and the poor souls that were caused to perish I wanted to throw myself into Boston Harbor and drown because it was due to a snapped axle that I had rung as good."

Olin sensed the tension in the man's voice and quickly tried to calm him. "It was not your fault. That axle was true when the train left Boston. I know that for a certain fact because if it had not been so the train could not have made the distance to Andover before failing."

Lloyd paused to choke back a lump in his throat, appreciation showing in his pale blue eyes. "I knew that must be so in my heart but I could not be absolutely certain. I thought that I might have missed a bad ring. The railroad threw me out immediately because they knew that they would be sued and wanted to be able to state that they had taken the necessary action to punish an incompetent employee and that it should be I that deserved to be sued."

Olin felt anguish for a man that had striven all his life to perform his work well and that then had been cast to the wolves through no fault of his own.

Lloyd took a deep breath and then gave Olin further details of his situation. "They blacklisted me at all of the railroads and all of the wheel and axle foundries. The damage of that was less than the damage to my own mind at the thought that perhaps I was truly responsible for the wreck. My wife has suffered greatly also. We have no money save a little that my son has been able to give us from his labors in the stone quarries in Vermont. They use ringers in the quarries and I am hoping that I might find work thereabouts, though my son says that I have the same chance of getting work there as a pig does to fly. But if I don't find work my wife and I will starve or freeze this winter.

It was necessary that I pass this way for a yet more pressing reason, and that was to thank you in person for saving my mind. I went to thank the barrister Benjamin Butler, in Lowell, Massachusetts, after I learned that he had proven in court that the cause of the wreck was a collision with a granite block loaded wagon. But he would have none of it and told me that I was trying to thank the wrong person. He firmly stated that it was your knowledge of metals and something called "stress concentration" that had allowed him to rest the case in the courts by proving that the axle was sound in Boston." Adept paused a moment as the telling of it evoked deep emotions. Olin waited patiently for him to continue, realizing how greatly the accident had affected the man.

"He asked me to stay a few days in Lowell," Adept continued, "while he discussed my employment with certain railroad executives. I did so, but as it happened they would not hear his arguments and said that what was done could not be undone. Mr. Butler said that he had no "leverage" to apply to the situation, whatever that means. He then pressed two ten dollars gold pieces into my hand and wished my wife and me a good trip to Vermont. He said that in any event he had obtained that money and more from the railroad and that it was just that I should receive some of it. He also informed me as to your whereabouts so that I might come and thank you."

Olin was stunned. "But if the railroad case was won by Butler why didn't the railroad take you back at your employment?"

Lloyd Adept shrugged dejectedly. "Most often when a company has made an action, no matter how wrong it might be later proven to be, they will not undo it. They refuse to have it said that the company made a mistake because then every man let go would claim a mistake for it. It would weaken the authority of the company. That is why they blacklisted me, so that I would not be at any railroad yard complaining of mistreatment by my past employers. They would rather me to be dead of starvation than to have that."

At this moment Martinmon rode into the barn upon his saddle horse for a routine

inspection of the work of the laborers and seeing a stranger with Olin he prodded his animal to ride over to them.

"Keep you mouth shut unless I ask you a question," Olin said under his breath to Lloyd Adept,

Martinmon reined in his horse a few feet from them and looked down at Adept. "Who might you be stranger and what are you doing in my barn without my leave?"

Olin quickly answered with a lie that he believed was justified. "This is Christofer Burns, recently of the Connecticut and Passumpic railroads. He is moving up from Hartford in order to be nearer his only son and his grandchildren in Vermont. He has heard that we lost Gerlad Richmond to lock jaw a time back and seeks the opening thus left. I have asked him about his past work and I must say that I would recommend him as he seems as well suited and then some, as any of the others that we have at work here."

Martinmon looked Adept up and down, as if that might reveal a man's ability. He nodded assent. "If Olin says OK, then it is OK. We need a man. It is six cents an hour take that or leave it. Stop at my office later so that I can register you properly and you can start tomorrow." He reined his horse around and rode out of the barn.

The very surprised Lloyd Adept turned and looked at Olin appreciatively but experienced difficulty in finding the words to thank him for the spontaneous employment.

Olin placed a hand upon Adept's shoulder. "They did not treat you correctly in Massachusetts so we will make it whole in New Hampshire. You should practice answering to the name of Christofer Burns, or Chris Burns. If Mr. Martinmon ever finds out who you really are he will be compelled to let you go immediately, and perhaps myself besides and then we will both be begging at your son's door. Martinmon's first allegiance is to the railroad and his second is to his stomach. So, leave now and walk down to the first building on your right, as that is Martinmon's office. Tell him that you were a roustabout in Connecticut; say nothing of having been a ringer. If he thinks you are a roustabout then he will not ask you any pointed questions about your past work."

Lloyd found his tongue. "Olin, I am twice deeply in your debt."

Olin said, "Don't be bothered about that but let me ask, can you ring granite as well as steel?"

"I have never made the attempt but I know that it can be done for it is done at the stone quarries," replied Adept. "Why do you ask?"

"Because someday the future will be the present. I will let you know then. Now, listen. After you stop at Martinmon's office walk into the town and ask for Macnock's store. I know that they have a room to rent at the rear of the store. Tell them that I sent you to ask about it."

Adept could not comprehend the meaning of Olin's words in regard to the future but he was flushed at the thought of his new employment, the coins in his poke having dwindled to a precious few. "I will see you in the morning," he said with happy relief and strode out of the barn and walked down to Martinmon's office.

At the end of the day Olin walked to the newspaper office of John Trinkem and they talked for some twenty minutes after which they shook hands in apparent

agreement upon the matter discussed. Olin then walked down to the telegraph office and had a message sent by wire to Benjamin Butler in Lowell, Massachusetts. Afterwards he went over to Macnock's store and spent some happy time in flirtation with Judy as he checked to be sure that the Adepts had found lodging there.

Dawn on Monday November 28, 1853 found Olin forging wrought iron latches from strips of metal stock. He never ceased to marvel at how ductile iron became when heated red hot and he worked the metal with tongs and hammer as easily as a sculptor manipulates clay.

Martinmon entered the barn and very quietly walked up behind two laborers that were working only their mouths in idle chitchat and were unaware of his presence. "You're both docked an hour's pay," he said in a loud gruff voice. "If I ever again catch you wasting the company's time you will be out of here for good. Now get your lazy asses to work." The startled and admonished men quickly and energetically bent to the work that they had so recently ignored.

Martinmon walked over to the forge and he and Olin nodded good morning to each other. "Why didn't you tell those two sluggards to get to work?" he asked.

"Because they don't pay me as much as they pay you. If I started to do part of your job then your good conscience would require you to give me a part of your pay."

Martinmon merely grunted sourly. As he stood by the large anvil he remembered something. "Did you ever learn what the numbers on the anvil mean?"

The large anvil had been manufactured in England, as was generally the case prior to 1845 as it was only about that year that the American anvil companies Wright, Columbian, and Budden came into existence.

There was a sequence of numbers stamped into the side of the huge waist high English anvil that Olin was working at and it was these digits that Martinmon had asked about. The number sequence was "6-3-4". Olin knew what the numbers designated, was amused by their meaning and struggled to find a way to explain them without throwing Martinmon into a state of complete confusion. "They indicate the total weight of the anvil," he informed the man.

"Does 6-3-4 mean six hundred and thirty four pounds?" asked Martinmon.

"No. That would be too simple. You must remember that it is an English made anvil and there is absolutely nothing simple about the British system of weights. The numbers indicate the weight in whole long hundredweights, quarters of long hundredweights and lastly pounds."

Martinmon was suspicious that Olin might be perpetrating a prank upon him. "Why not just give the weight in pounds?"

"I just told you the reason, which is that it was made in Great Britain. The English have devised a system of weight measures with the apparent intent to confound the rest of the world."

Martinmon was captured by curiosity and he waited for Olin to continue.

Olin related what he knew of the English system. "I have read that the English hundredweight dates from about the middle of the 1300's and represents a weight of one hundred pounds. So far, that appears logical".

Martinmon asked, "Why did they wait until the 1300's to figure out that a 100

pounds could be called a hundredweight? It does not seem too difficult of a thing."

Olin shrugged. "Neither of us comes from a British heritage so we may never understand it. But consider this as well. The countries on the European Continent use the metric system that is completely different from the English system. For example, a kilogram of weight is equal to 2.2046 pounds and a thousand kilograms is 2,204.6 pounds. That is what is called, a metric ton."

Martinmon's face scrunched up in some exasperation as the complexity of the explanation was increasing. "Do I really want to hear the rest of this?"

"I think the answer is yes, as it serves to show how something should not be done. Now, very often, European trade was conducted in metric tons. So to remain competitive the English felt the need to establish a similar ton. They of course refused to simply use the metric ton and devised their own version. Now, if a group of very young school children were set down to develop the new "British ton" about the same result would have been achieved.

It was declared that there would be a "long hundred weight" to more closely match 1/20 of a metric ton. The closest whole number to that is 110 pounds."

"So, a long hundred weight is 110 pounds," the man assumed.

"No, it is 112 pounds," stated Olin.

Martinmon was becoming impatient. "Why the hell is that, and is this story going to end before sundown?"

Olin gave a short laugh. "There is a saying "the sun never sets on the English Empire". Let us see what we get by looking at their system a little further. The British declared their long hundredweight to be 112 pounds as I said. The reason was that the British were forever fond of numbers that were divisible evenly into, quarters, eighths, sixteenths, etc. Thus while a quarter of 110 pounds is not an even number, a quarter of 112 pounds is even at 28 pounds."

"For that reason alone?" asked Martinmon with incredulity.

Olin smiled. "Yes, for that reason alone. Now the British happily continued on with their divisions of the long hundredweight and obtained "stones" of 14 pounds each and "cloves" of 7 pounds each."

Martinmon was shaking his head in disbelief.

Olin continued the strange tale of the English systems of weights. "In contrast American businessmen early recognized the benefits of decimal systems employed both with currency and with weights. They began to discard the British long hundredweight due to its complexity and nonconformity and adopted the American hundredweight of 100 pounds around 1840. So while twenty of our hundredweights equals 2,000 pounds, twenty British hundredweights equals 2,240 pounds. The English believed that was delightfully close to the metric ton of 2,204.6 pounds, while it still allowed them their enchanting method of division by quarters, eighths, etcetera."

Martinmon was near total exasperation. "For the love of God, tell me what the numbers on the anvil mean!"

Olin complied. "The British manufacturer has stamped the number sequence, 6 - 3 - 4 on the anvil and these are to be read as, 6 British long hundredweights, plus 3 quarter long hundredweights, and 4 pounds more. The total of these sum up to 760

pounds. I will bet you that if we ever weighed the anvil it would be about 760 pounds of metal."

In complete silence Martinmon turned on his heels and walked away as he shook his head at the strangeness of the explanation. As he passed near the two now very industrious laborers he growled at them. "I have changed my mind about docking your pay. It will be a two-hour fine for each of you." This statement drove the men to a near frenzied state of industry.

Olin stood and contemplated the huge anvil. Near it was an old oaken barrel filled with water and was the slaking tub for shock tempering of hot metals. Olin had a second use for this barrel and that was to bathe in it at least once a week. Every Sunday, when the train barn was empty of workers he would heat water in a pail upon the hot forge coals and then pour it into the barrel. It had only been a few years earlier that physicians accidentally noted that when wounds were cleaned with soap and then kept sterile that the rate of infection was much reduced. No one knew why that was but Olin took it at face value and bathed weekly using lye soap. He pondered the fact that there is a use for everything as the lye for the soap was obtained by filtering water through the ashes of hard woods.

He had installed a petcock to drain the barrel after each bath but there was always a residue of soap within it. The workers in the train barn were acutely aware when he was again using it for the slaking of red hot metals due to the sour odor of heated soap.



## Chapter 4

Olin's next demonstration for the townsmen occurred on Saturday, December 3, 1853 and it took place once again at the train barn. Olin had obtained an old and disused metal dairy milk can, of 15-gallon capacity, and into this he had poured perhaps a quart of water in preparation of the arrival of the group of men. He kept the forge coals hot by use of the bellows knowing that the men would relish the warmth after their cold journey from the town inn to the barn by horse drawn wagon. Also, he would need the heat of the fire for his demonstration.

Olin heard the pounding of horse hoofs on the frozen street as the wagon with the townsmen approached. He swung open the huge barn doors and after Mr. Martinmon drove the wagon inside he swung them closed again to retain the warmth of the forge. He noticed a daub of white paint upon the rim of the left front wheel of the wagon.

As usual the townsmen were in fine humor, having recently eaten good food and drunk good wine. The Reverend Kertabit leapt down from the wagon and greeted Olin with a fair amount of social warmth, the idea that Olin was on his speedy way to hell seemingly to have cooled in his mind. The other townsmen disembarked from the wagon and greeted Olin with smiling hellos and showed cheery anticipation of the entertainment of his upcoming demonstration.

Olin stepped over to the old dairy milk can and the men gathered nearby. "First I am going to set this can atop the forge coals and heat it," he informed them. "When we begin to see steam issuing from the mouth of it due to the quart of water I have poured into the can, I will remove it from the hot coals using my thick work gloves so that I do not sear my fingers. I will then set it upon the floor and over it's open top I will lay this piece of old tarp." Olin held up a section of old canvas that was adequate in size to cover the mouth of the milk can and then some. He did not inform the men that the canvas would serve as a sort of sealing gasket of the can opening. The men nodded their understanding of the demonstration up to that point of Olin's explanation.

Olin continued describing the demonstration as he motioned towards a scrap block of wood that was resting on the floor. "Once the canvas is over the mouth of the can I will set this inch thick piece of old plank wood on top of the canvas, its size being just enough to cover the mouth of the can and also with a couple inches of overhang all about it." They nodded their heads that they perceived the course of actions.

"Next, with my gloves still on I will lift the hot can and then push it bottom down into the slaking tub of water to cool it. I will keep it in the water long enough so that you gentlemen may touch it without fear of harm to your hands." The men declared their understanding of the forthcoming sequence of events by various nods, grunts and hand gestures.

Olin placed the milk can upon the hot coals and while waiting for it to heat and for steam to issue from the can, the men gathered closer about the forge and began rubbing their cold hands together as they warmed them in the heat. They talked amongst themselves about various mundane matters for some minutes until the English teacher Mr. Sprichen, said that he observed steam rising from the open mouth of the

can.

Olin asked the men to stand out of the way and then he lifted the steaming can from the hot coals and rested it on the floor nearby. He placed the piece of canvas over the mouth of the can and upon that he set down the block of wood. Olin inserted his gloved fingers into the handles on each side of the can but he stretched his hands so that his thumbs could reach above the edges of the piece of wood and press down upon it. He then lifted the can and pushed its bottom down into the cold water of the slaking tub, being sure to firmly press the wood down onto the top of the can. The hot can caused the water in the tub to boil and hiss at the moment of insertion but soon the water became calm again. Olin knew that the longer he kept the can in the water the better so he did so until he sensed that the men were exhibiting impatience.

The water had cooled the can and that in turn cooled the steamy vapor within the can. He knew that when the can was full of steamy hot air due to the boiling water that the pressure of the humid vapor was just about equal to the atmospheric pressure that was normally all about them, some 14.7 pounds per square inch. However, when steam condenses back into water the space it then occupies is about one seventeen hundredths of the space it occupied as vaporous steam. That reduction in volume results in "emptiness" inside the can, a partial vacuum.

Because there still had been considerable air in the can due to the fact that he had not allowed it to attain an extremely high temperature, the partial vacuum was moderate in nature. Regardless, the pressure inside the can fell dramatically when the humid vapor was cooled and atmospheric air pressure squeezed the can from all directions, including down upon the wood plank with its canvas gasket. He lifted the now cool milk can out of the tub and placed it again upon the floor. The men moved closer expectantly. "What now, Olin?" Mr. Martinmon asked.

Without replying Olin reached into his pants pocket and removed a ten-dollar gold piece. He set this upon the face, or flat top surface, of the anvil. The men looked at it and Olin quizzically. "That ten-dollar gold piece belongs to the first man among you that can lift the wood block off the top of the milk can using only his hands," Olin declared.

For a moment the entire group stood in some bewilderment but the moment the fact of what Olin had said sank into their minds there was a rush to be the first man to get to the can and win the gold coin. The first to set hand upon the wood was Mr. Hiram the lawyer, and the rest of the men grudgingly stepped back and waited for him to lift the wooden block. He put one hand under an edge that overhung the can and smilingly applied upward force. The block remained atop the can. He applied more force and the milk can lifted off the floor, the wood block still in its place. He set the can down, wrapped his left arm about it and pushed up against the wood with his strong right hand. The wood remained in place. The other men began to deride his fruitless efforts and insisted that another be allowed to try to remove the wood.

In deference to his status in the town, Mayor Hastings was allowed to make the next attempt. He began by setting the can between his knees and then tightening his thigh muscles to retain it while his hands pushed against the wood block. His efforts failed to achieve the goal and after several strenuous exertions he admitted defeat. One

after the other, the remaining men wrestled with the reluctant piece of wood, all of them failing in the attempt. It was reminiscent of attempts by men to remove King Arthur's imbedded sword Excalibur, from a large stone.

Olin lifted the can and placed it back upon the hot coals. He reached over and retrieved his ten-dollar gold piece from the anvil and with mock ceremony returned it to the sanctuary of his pants pocket.

"All right Olin, now that you have proved us all to be as weak as newborn foals, tell us why could we not remove the block," Mr. Martinmon instructed him laughingly.

Olin was allowing time to pass in order that the heat would cause the water to boil once again into steam so he paused before replying. "Well," he finally began, "I am not foolish enough to suggest age and idleness because you are all well nourished, show no sign of extensive years and appear to be energetic citizens. You may be sure that I will not tell throughout the town the story of this failure of your manly efforts and contortions in an attempt to remove a simple piece of wood from atop a dairy can. You may yourselves tell your wives and offspring that truth which you want them to believe."

Estimating that enough time had passed to allow the steam vapor to increase the pressure within the can, Olin reached out his arm and with his thumb and first finger alone lifted the wooden block off the top of it. The group of men stared in stunned silence at the ease which Olin had removed the block. They slowly began to grasp the fact that heat had something to do with the loosening of the wood, but wondered how.

"Olin, how in the hell, eh forgive me Reverend, do you know these things?" Mr. Scalodi asked.

"I read about them, just as anyone else could," he answered. "This was first shown in public by the German, Otto von Guericke, the burgomaster of Magdeburg, Germany. In 1650 he demonstrated it to the German Emperor and the Reichstag. (The reading of this had fortified Olin's belief that even Emperors enjoyed being entertained by demonstrations of science.)

The burgomaster had two tight fitting hollow half balls of iron made such that when the open ends were placed together they would seal tightly while the air was pumped out of them. A valve was then shut, the pump removed and the two half balls were held together by the pressure of the weight of the air of our atmosphere. This pressure compressed them so tightly together that sixteen horses, four pair hitched to each half, could not pull them apart. Yet when the air valve was opened and air flowed in, the two halves fell away from each other of their own accord."

While Olin had been telling the tale of the Magdeburg spheres the water inside the milk can had come to a very rapid boil, much more so than the first heating of the can. As the temperature of the steam increased it occupied yet more volume with each degree rise. As the steam expanded it drove most of the air out of the can with the effect that to a greater and greater extent there was basically only steam left in the can.

With the hot vapor issuing very forcefully from the mouth and the bottom of the can beginning to glow a dull red, he removed it again from the hot forge with his gloved hands and set it upon the floor. He replaced the piece of canvas and the wood atop the can and lifted it above the slaking barrel. When he pushed it down into the water an explosion of sputtering steam and hot water droplets filled the air and in anticipation of it

he had turned his face away. The group of men fell over their own feet in their attempt to quickly move backwards and away from the barrel. The horse harnessed to the wagon stomped its hooves nervously. Olin continued to press the can downward and soon the sputtering diminished and then silenced.

But then there was a new and odd sound. It was the noise of the metal milk can crumpling under the force of atmospheric pressure as the steam pressure inside the can rapidly diminished with the cooling of the metal. This time the vacuum was by far greater because there was only steam inside and when it cooled and condensed back to water the decrease in volume was dramatic. Olin had previously estimated the total surface area of the dairy can to be approximately 1,200 square inches. With a vacuum inside the can the total compressive force upon the can was over eight and one half tons. Olin was careful not to have his fingers within the looped handle grips of the can as the metal twisted and bent because the forces would have crushed them if they were caught there.

But Olin had failed to anticipate something, though he always strived to foresee unsafe situations. Due to the severe forces upon it, the section of wood plank split with a sharp and intense noise. The intruding air propelled the piece of canvas into the can at great speed and that caused a sound similar to a small cannon due to the resonance of the hollow can. Olin was so taken by surprise that he released the can and stumbled backwards.

Several of the townsmen were already racing to the door of the barn and the harnessed wagon horse rose up on its hind legs, whinnying loudly and churning its front legs wildly in the air, thus adding considerably to the chaos of the moment. The immediate concern of the frightened horse was to locate a free avenue of escape. There was none in the enclosed barn and this heightened the panic of the animal to a fever pitch. It repeatedly reared on its hind legs and pawed its front legs in the air. Feeling the resistance of the wagon it dropped to stand on its front legs and relentlessly kick backwards with its hind legs in an attempt to break free.

Olin quickly removed the leather forge apron that he had been wearing and threw it over the horse's head to cover its eyes knowing that a blinded horse usually will cease bucking. In the same manner a rattlesnake in a cloth sack can normally be handled safely because by instinct it will not strike unless it can see what it is about to fang. The horse did not cease bucking and one thought among many others that were in Olin's mind was that he would never test a snake in a sack either. He fought to keep the apron over the horse's head and eyes regardless of the apparent ineffectiveness of it simply because he had not the slightest idea what else he might try to quiet the animal. His patience and tenacity were eventually rewarded as the beast slowly calmed.

While still holding the apron over the horse's head he gave instructions to Mr. Martinmon. "Mount to the wagon seat and use the reins to encourage the horse to come around to the right until it has turned the wagon about and is facing the doors." The man quickly climbed up into the wagon and used the reins to haul the horse's head around.

"Open the doors of the barn, quickly please," Olin said to the other men.

When the doors had been swung wide he led the still blinded horse forward until it was outside of the barn and in the cold nighttime air. With slowness he lifted the apron

away from the horse's head. Upon seeing that it was now free of the barn the horse only pawed the ground nervously with its left front hoof.

Looking down upon Olin from the height of the wagon seat Mr. Martinmon yelled angrily, "Can you give me one good reason why I should not jump down there and knock you clear to the hell that the Reverend Kertabit accurately forecasts that you will some day enter?"

The other men gathered about after having reclaimed their dignity after their panicked eagerness to escape from the barn. Their sense of trepidation had been perhaps no less than that of the horse.

Olin thought that to regain the situation he must be very careful to formulate his reply. He answered Martinmon's question. "Yes, because you will thank me tomorrow."

Mr. Martinmon rose to his feet in the wagon box in heated confusion. "What the hell, excuse me Reverend, do you mean I will thank you tomorrow?"

The other men also uttered disgruntled words that the Reverend tactfully chose to ignore, mostly because he thought Olin was deserving of them.

Olin cast a look at the red faced Mr. Martinmon on the wagon and then at the other men standing about in the cold night air. He spoke to them all together. "Sirs, can you describe your yesterday in any manner where a person of clear mind would find your telling of it to be interesting and memorable?"

He was counting on the good probability that none of the men had done or experienced anything during the previous day that would be of any significant interest. They would have arisen, had a standard breakfast, gone to their employment with it's usual troubles, returned home, ate a standard supper and then would have retired to bed, just as they did most days of their lives.

After waiting several moments to assure that none intended to respond affirmatively he continued. "Tomorrow morning you will arise with the memory of this experiment, your attempts to remove the wood, the hissing and splattering water, the sound of the crumpling milk can, the sharp crack of the wood, your surprise (he wisely did not use the words fear, terror or panic) at that, and then the commotion of the terrified horse. And you will have a thought in your mind such as this: "Damn, excuse me Reverend, I have to thank Olin for having given me an interesting evening and a wonderful tale to tell my family, friends and any others that will listen. My only regret this fine morning is that I must wait another month for one of Olin's demonstrations"."

At this the entire group broke into laughter and several of the men approached to slap him good-naturedly on the back. Mayor Hastings jokingly agreed. "You are quite right lad, but we beg you to please not attempt to assassinate us next time!" The men climbed aboard the wagon and rode back to town in a good humor.

As the weather turned ever-colder Olin was content to be working in the warmth of the train barn and gaining experience with machinery and the working of hot metal at the forge. As he labored his mind often drifted from thought to thought in regard to the numerous things that he had read in books. Olin was very much interested in the prevention of disease and food spoilage. He had read that in 1790 Napoleon had offered a prize of 12,000 French francs to the person that could devise a method of food preservation. Napoleon's concern was for the feeding of his armies. It was common

practice for the retreating enemy to engage in a scorched earth policy by devastating farms, storehouses and factories so that his advancing army would go food-less.

A French candy-maker, baker and brewer named Appert, had been interested in such matters because of his own business dealings but it was not until 1804 that he could claim the prize. He placed cooked foods into bottles, corked them and submerged them in boiling water. The food stayed fresh indefinitely but Appert never knew the scientific reason for that, he only knew that the process worked.

Olin was a strong believer of experimentation and was ever reluctant to believe a thing unless he knew it to have been proved. For many years tomatoes had been cultivated in the United States, but not as a food. They were employed as ornamental plants in flower gardens and because they were of the same family as the deadly Nightshade plant they were believed to be poisonous. Thomas Jefferson had written of planting them in 1809 but they were not widely recognized as edible by Americans until about 1830.

Olin laughed to himself upon remembering that he had read of an account of a young man who was courting a southern belle in Georgia. The pretty lady refused his offer of marriage and in his despondency he told her he would commit suicide. Knowing that her father had planted what were believed to be poisonous tomatoes as a decorative vine at the front of the mansion, he declared to his lost love that he would go and eat one. She became alarmed and ran to locate her father so that he could prevent the young man from doing himself harm.

The father did not particularly care for the young man but he thought it best that a suicide did not take place upon his property. The plantation owner confronted the rejected suitor at the tomato plant, but alas and alack, the despondent lad had already consumed one of the supposedly deadly fruits.

The father inquired of him, "Are you feeling any of the effects of the dreadful plant?"

"No, not the least," was the reply. "But I yearn for its speedy effect because your daughter has spurned my hand in marriage."

The father contemplated him a while longer but there was no apparent pallor or pain. Curious now about the seeming lack of toxicity the man made a suggestion. "Well, then eat another one, that's a good lad."

Olin had related that tale to Judy. Subsequently, upon any occasion when she would in the slightest rebuff his attentions he would threaten: "I am going to eat a tomato!"

Her joking response was always the same. "Eat two of them!"

It was Olin's fond hope that he could rise above the status of a laborer in a train maintenance barn and some day become worthy of having Judy as his wife. He knew that good fortune was not simply going to fall into his hands and that he had to constantly search for the knowledge and experience that would lead eventually to at least a middle class status.

A few weeks later when Olin next saw Andre enter the train barn the French youngster approached and handed him \$1.35 in coins. "That is one penny for every ten pennies we made with the mind reading of ciphers and dice," he gleefully exclaimed.

"The passengers are being generous because they are completely bored with their train travels and very much enjoy our entertainment just as you said that they would. There are some coins that we can't use though. They are foreign and the people give them to us because no one else will take them in trade. All of these have words in strange languages but I can read a word on one of them. It is "God"."

Andre handed the coin to him and Olin observed that the entire motto minted onto the coin was "God zij met ons". "I have read a little about coins," he told Andre, "and I believe that this is a Dutch coin and the words mean, "God is with us". I can't remember for sure but the Dutch have used that motto on their money since about 1816 or 17."

"Did a Dutch church make the coins? Is that why it says "God" on them?" Andre asked.

Olin laughed lightly. "No, they are not made by a church. The Dutch government decided to put that motto on all of their money."

"But, I don't understand," Andre declared. "God is at churches, not at town halls and other places where there are government people. Do the churches get mad that the government uses their word?"

Olin smiled. "I have heard many townsmen say that politicians are godless, but no, the churches do not get mad. One of our presidents, Thomas Jefferson, wanted to put such a motto upon our money but he could not get congress to agree. In the Constitution of the United States there is a first amendment that requires, in the words of everyday people, a separation of church and state. To us it means that churches get to do church things and governments get to do government things. The carpenter does not sell fish and the fishmonger does not build houses. Now, if both the church and the government are good at what they do, such as the fishmonger and the carpenter, then there should absolutely not be a problem."

"So, what is the problem?" asked the lad.

"Well Andre, many people still remember that in Europe, religion was often forced down the throats of the citizens with the assistance of kings and queens. Now, there were many other things that were forced down the throats of the citizens also and because of that the first amendment includes freedom of speech, freedom of the press, freedom to peaceably meet together, and the freedom to tell our government when they are doing something wrong and to demand that they correct themselves. Taken all together it is called "A Bill of Rights"."

"It sounds wonderful that there is such a good government for us," Andre remarked. "Are there some people that actually complain about this?"

"There are some people that would complain that the sun is not rising fast enough in the morning as their crops are waiting for it," Olin observed. "Our government has a truly wonderful system to prevent things getting out of hand. It is called the system of "checks and balances". The power of the government is essentially shared between congress and the president. Then off to the side the Supreme Court watches those two to be sure that they are following the constitution. Now, it is possible for a horrible thing to happen. If ever the judges upon the Supreme Court make decisions because of their politics or religion, then the country could be doomed. The saving

grace is that while the judges are appointed for life they have to die sometime, and that is a greater blessing than some might imagine. It provides the opportunity to have new judges that are more mentally stable, because any judge that makes decisions based upon politics or religion, and not only upon the law of the Constitution, is mentally unstable at best, or evil at the worst."

Andre seemed to have taken it all in but returned to the use of "God" on coins. "You told me a lot but I am not sure why we can't have "God is with us" on our coins. It sounds like a nice thing to do. You believe in God don't you?"

"Yes, I do," answered Olin. "But the question is, where does a thing stop? Should it then be upon every postage stamp? Should that be the first sentence of every letter or book that is ever written? Should you be required to say it every time you meet someone upon the street?"

Or, you can ask the question in reverse; what would it help? The value of the coin would be the same. The letter would not reach its destination any sooner. Some people say that it is as if a plague is upon others who deeply believe certain political or religious things, because they become obsessed with trying to force other people to agree, or at least submit to their beliefs. They can not help themselves, it is beyond their control to stop and allow other people to have their own ideas."

A look of distasteful thought crossed Andre's face.

Olin continued. "Now, let us think of an example. If you unfortunately meet a robber upon the street and he sees that you have ten gold coins in your hand, will he go and leave you alone if you throw one of them at him?"

Andre's eyes widened with skepticism. "Of course not, he will demand the other nine."

"Yes," Olin agreed, "so beware of anyone that wants several things and says to you that if you would only give him the first one he will go and leave you in peace. It is a trick as there is no halfway in such matters as far as they are concerned. It is all or nothing."

Andre understood what Olin had said but he grew weary of the subject. "Do you have other mind reading things to teach me? Some passengers are seen again on a return trip and do not pay to see the same entertainment twice or more, not even for foreign coins."

Olin pondered the problem for a moment. "Be here this Saturday evening at 7:00 PM," Olin instructed him. "There will be a number of town gentlemen here also at that time, and Mr. Martinmon too. Do not say anything to them. Just stay back out of the way and observe what I show them."

Andre nodded assent with a twinge of apprehension. "You may be sure that I will stay out of Martinmon's way."

"Has Mr. Skanter, the icehouse master ever caught you stealing ice?" Olin asked.

"Yes, but he only gives me a half kick in the ass, he is not really mad about it. Of course we do not steal ice now during winter."

"Get out of here now but be back on Saturday," Olin instructed him.

Andre was quite happy to leave before Martinmon had a chance to put in an



appearance.

On Saturday, December 17, 1853, Olin was reading a report in Trinkem's newspaper that had been written by Mark Twain, describing his observations of "amateur night" at Philadelphia's saloons. He wondered how many readers would believe what the newspaper reporter had written. Twain's account described two women that presented themselves as an attraction at a tavern and he had reported that both of the women weighed in excess of 750 pounds. He did not indicate if the lasses performed an act and his comment had been that they would bring a good price in the Cannibal Islands. Olin's thought was that he wished that Mark Twain had described how the two women had been weighed, as then he might be able to use the information to weigh the heavy 760-pound anvil in the train barn.

That evening the townsmen once again appeared at the train maintenance barn. Also in attendance was Harald Skanter, the owner of the ice barn. Olin had visited his home on the prior Thursday evening after supper and there made a business proposal to him. All businessmen were constantly on the lookout to earn a few pennies more and Harald Skanter was quick to accept Olin's offer. He was invited that Saturday evening without the requirement to pay the fee that the other townsmen were charged for one of Olin's demonstrations. In exchange he had his men deliver a large ice block to the maintenance barn at 7:00 PM.

The standard for the size of an ice block was 22 inches wide, 32 inches long and at least 18 inches deep, the later dimension depending upon how deeply frozen the lake was. Usually the ice cakes weighed somewhere between 200 and 300 pounds. The workmen were instructed to set the ice cake atop wooden blocks that lay upon the floor near the warm forge. As usual the townsmen were full of good food and wine that had put them in fine humor. The bank president Mr. Perkins, was in a joking mood. "Are you going to attempt to freeze us to death with ice since you were not successful in your earlier plan to destroy us by explosion?" This brought a good round of laughter from the rest of the group.

Olin smiled. "No, Sir, what I am going to do is this. I am going to cut the block of ice in half and when that is complete it will still only be a single block as you see it now." It took some moments before all of the people in attendance mulled that over in their minds and decided that they did not understand what he had said.

Olin had a 10-foot length of metal wire coiled in his hand. He stepped over to the side of the large ice block and unwound the wire. He laid it over the top of the block, an equal amount lying loose on each side of the frozen slab of water.

"This wire is going to pass down through the center of the ice block and thus cut it in two," he informed them. "But, when the wire portion that is now on the top of the block has finished passing completely down through the ice and rests upon the floor beneath it and between the wooden supports, the block will still be whole."

The hardware storeowner Mr. Scalodi found it difficult to believe the claim. "That would be magic! How is such a thing possible? We do not sink through ice when we walk upon it or when we skate upon it! So why would a simple wire sink through the block? And if it did, why wouldn't the block be in two pieces?" There were murmurs of disbelief from the others also.

Olin decided to compound their confusion. "Good Sir, if you wish you may stand upon the ice block as the wire passes through but you will still be above it when the wire is below it." Mr. Hiram suggested that Olin begin with the demonstration because their curiosity was growing intense. The other men seconded the motion.

Olin knelt down and beneath the ice block, and in the space between the wooden blocks he tied the loose ends of the pliable wire together with secure knots. Now the metal strand formed a loop around the block but with some six inches of sag beneath it, hanging down between the wooden blocks. He beckoned to Andre to help him lift one end of the section of railroad track that he had employed for his pendulum demonstration. They dragged the track over and inserted the lifted end carefully into the opening created by the sag in the wire beneath the ice block. The other end of the track rested on the floor. They then gently allowed the weight of the track to be taken up by the wire. The mass of the steel track now pulled the wire taut over the top and down the sides of the ice block. Olin and Andre stepped back and Olin advised the men that there was nothing left to do except patiently wait. After a minute or so Mr. Sprichen stated that nothing was happening that he could observe. Olin suggested that they be patient and warm themselves at the forge fire in the meantime. The group gathered closer around the forge and Olin beckoned Andre to join them.

"Andre is an orphan and sells water and stones on the trains. He steals ice chips from Mr. Skanter with Mr. Skanter's permission for the theft."

There was chuckling in general and Mr. Skanter added his comments. "The chips are waste from our block stacking and of no use to me. However, I don't think the boys would enjoy taking them unless they thought that the cane and the goal awaited them if caught, so I yell blue murder at them if they do it in the daytime when I am about."

Dr. Herman beckoned Andre to step closer to the lantern light. "Does your eye hurt?" he asked as he inspected a redness of Andre's right eyelid.

"No, Sir. It is a bit scratchy feeling though."

The doctor's concern was that it might be trachoma, which was also called "Egyptian eye inflammation" as it had been prevalent among the laborers that had built the pyramids. He was aware that there had been recent outbreaks in the Appalachia region of America and that it was highly contagious. There was no known cure and repeated infections led to blindness.

"Listen to me, Andre," the doctor forcefully said, "I want you to wash the area of your eyes several times a day with warm soapy water. Get some soap under your eyelid even though it might sting like hell. Do any of the other boys have this problem?"

"No." The word trembled on Andre's tongue because he was apprehensive that he might have a serious disease.

"Good," said the doctor. "Now listen to me. You might be contagious (everybody took a step or two backwards at that announcement) so wash your face as I told you and have the other boys wash theirs also even if there is no redness yet. Do you understand?"

"Yes, Sir," he answered in a frightened voice. His knees were shaking slightly.

"If I had some, I would give you a little camel piss," the doctor remarked.

"What?" from everybody.

"It has been used throughout the ages as a disinfectant," the doctor stated. "Some Egyptian desert tribes that wash their faces with it remain free of eye disease while their neighbors do not. The cause of the beneficial effects is not known but its good results are clearly evident. Some suspect that it contains the iodine that Bernard Courtois discovered in France during 1811. Oddly, all that he was looking for was sodium and potassium compounds in the ashes of burnt seaweed."

The group was slightly on edge both due to the detection of a possible contagious disease and the thought of washing one's face in a dromedary's benevolent urine. They jumped slightly when in a loud voice Mr. Hastings drew their attention to the ice block. "Look there! The wire has sunk into the ice!"

The men approached the ice and observed that the wire was more than an inch deep into the top of the block. But there was no open notch in the ice above the wire. There were calls for Olin to explain why the wire was passing down through the ice without leaving an opening above it.

He obliged them. "The pressure upon the ice due to the weighted wire melts the ice just below the wire. I will not go into a long technical explanation but when you next observe ice skaters upon the lake or river you should look for the following effect. As a skater makes a turn you will observe that there is a small amount of water thrown out by the metal blade. This is because the weight of the skater is adequate to melt the ice just beneath the blade and turn it to water.

But by the effect from the ice being quite cold, and from the frostiness of the winter air too, the water re-freezes almost immediately. As the weighted wire cuts into the cold block and causes it to melt, in the manner of the skates upon solid ice, the liquid water oozes around the wire and re-freezes above it where there is no added pressure.

I had Mr. Skanter's men place the block near the warm forge because if the temperature were too low it would take great weights to cause the wire to melt the ice. You may have heard, or not, that in the very northern and frigid regions of Canada it is more difficult to ice-skate than on our lakes. This is because the much lower temperatures there in Canada prevent the ice from melting beneath a person's metal skate blades and thus they do not glide as well. Believe it or not as you will, but on our lakes we skate upon water and not ice."

The men expressed their intention to be more observant of ice skaters in the future. The group engaged in various conversations and as time progressed so did the penetration of the wire into the block of ice.

With Mr. Skanter's permission Olin revealed a plan. Skanter had agreed to supply Andre and his boys with ample ice chips for their ice water sales during the summer months. In addition, Skanter and the train stationmaster had also reached an agreement. Skanter would deliver ice blocks throughout the year and these would be placed on wooden blocks at one shaded corner of the train platform. That location would prevent excessive melting of the ice block in the direct sunlight during the summer months. The boys would place some three or four weighted wires at different times upon the elevated ice block so that at any time a person could observe the progress of the wires through the block, and on some occasions see a wire finally drop

from the bottom of the block.

The boys would charge admission for waiting passengers and other people to approach the corner of the platform and observe the strange experiment. In the summer they would also sell ice water to add to the profits. The stationmaster (whose daily salary was \$1.25) had also readily agreed to the activity for a share of the profits. The station master would contrive to keep the platform corner screened whenever possible by luggage wagons, crates or other items so that people would not be able to easily see the ice block without paying a fee. Olin would receive one cent for every twenty cents earned, the remainder being equitably divided among the rest.

After hearing this plan several of the men suggested that Olin keep them in mind in the future to see if there was some way that they also could achieve a little profit. Olin indicated that at the moment the only other businessman he planned to talk to would be Judy's grandfather, Mr. Macnock. It seemed reasonable that his general store could arrange with the boys to sell cured meat in sandwiches, which would not easily spoil. There were also pickles, cheeses and other foods that retained wholesomeness during the summer heat. Olin was careful to allow only those items, as he was particularly concerned that they never cause sickness, disease or accident by any of their endeavors.

The conversations in the train barn continued for nearly an hour more and the wire finally passed completely through the ice block allowing the rail section to fall to the floor with a thud. The men investigated the block but could not detect any gap due to the passage of the wire through the ice. In a good humor and impressed by the demonstration they left the barn to walk to their homes in the cold night air.

Saturday, Christmas Eve, December 24, 1853, was a day of work at the train barn. As quitting time approached Olin walked over to the man called Chris Burns, who in reality was Lloyd Adept, and who had been working at the forge fabricating wrought iron door hinges as Olin had taught him.

"Hello Lloyd," Olin said while smiling.

Adept stiffened and looked about to see if anyone had heard Olin call him by his real name. He had been working in the barn for some months and all of the laborers and Mr. Martinmon knew him as, Chris. He and his wife had been boarding with the Macnock's who knew and had kept the secret of their real names.

"Olin, be careful. They might hear you," he cautioned the grinning lad.

"It does not matter, Lloyd," answered Olin happily, "You are once again, Lloyd Adept."

Adept stared at him with a total lack of comprehension. "Why are you calling me by my real name when you yourself gave me the name, Chris Burns?"

"It is Christmas Eve," Olin answered with some glee. "The Macnock's are going to open their warm store to those townspeople that wish to gather tonight to sing carols, eat, and drink cider, while they make merry in the spirit of the Holiday. All of them will exchange presents with their families soon. It is necessary that you and your wife have a present for yourselves. Be patient and you will soon have reason to celebrate. Work has ended, let us go to the store."

They walked to Macnock's store and after entering Olin and Lloyd warmed their

cold hands at the store's hot pot bellied cast iron stove. Also present were Mr. Perkins, Mr. Martinmon, Mr. Hiram and Mr. Trinkem.

The bank president Mr. Perkins made the introductions. Looking at Lloyd Adept and his wife he smiled warmly. "It seems clear that you are Mr. Lloyd Adept and the charming lady is Mrs. Adept. You know Mr. Martinmon, I believe, Mr. Adept."

Lloyd nodded respectfully in Martinmon's direction but had no understanding of why Martinmon did not appear angry about the fact that Lloyd had used an alias.

Mr. Perkins continued the introductions. "The gentleman seated to his left is Mr. John Trinkem, the editor of our fine local newspaper. Standing is Mr. Hiram, our town's fine lawyer."

"Now, as to the matter at hand," Mr. Perkins said smilingly. "Mr. Olin Collins, here present as you know, had sometime previously sent a telegraph message to a Mr. Benjamin Butler of Lowell, Massachusetts. I believe Mr. Adept, that upon an earlier occasion you had made the acquaintance of Mr. Butler, the renowned barrister."

Adept remembered Benjamin Butler pressing two ten-dollar gold pieces into his hand during that meeting and in his now confused state he blurted out, "Does he want the gold back?"

"I am not exactly sure what you mean by the question Mr. Adept," responded Mr. Perkins, "But I assure you that Mr. Butler requests nothing from you for the services that he has rendered. It is pro bono."

Adept's face took on a studied look. "As I recollect it, I do not know a Mr. Bono."

They meant no ridicule but Hiram, Trinkem and Perkins could not help themselves and spontaneously burst into laughter at Adept's unsophisticated comment.

Mr. Perkins laughingly gave assurances to Adept. "No, no, Sir. The words "pro bono" means for the public good, for free." Struggling to hold back more laughter the bank president looked at Olin. "Perhaps you can reveal the issue in more earthy terms, my lad. Give it a try."

Olin turned to Lloyd Adept and began an explanation as requested by Mr. Perkins. "Lloyd, on the day I first met you I had a later conversation with Mr. Trinkem, the editor of the newspaper. We strongly believed together that the railroad had wrongly discharged an honest employee because Mr. Benjamin Butler proved in a court of law that the coal tender's axle had indeed been rung sound by yourself in Boston and that the accident was due to a later collision with a granite loaded wagon at Andover." Those present nodded their heads in collective assent and Mrs. Adept reached out and squeezed Lloyd's hand lovingly and reassuringly.

Olin continued. "You might remember that you stated to me that Mr. Butler had explained that he had "no leverage" with the railroad when he attempted to help you regain your employment, or at least to have you removed from the "blacklist".

The railroad had taken the stance that you had been in error and called a bad axle good and discharged you from your employment for that reason. Now, if they believed that, then they should have directed Mr. Butler to rest the case in favor of the plaintiffs. And the railroad should have also paid out the amounts of the suits that were brought, in full acknowledgment of the railroad's negligence and guilt in the matter." Olin paused. Lloyd Adept said nothing, as he had no idea what to say.

"With Mr. Trinkem's complete agreement," Olin went on, "I sent a telegraph to Mr. Butler and reminded him that the railroad had in effect soiled his good name as a barrister by giving the appearance that he had falsely presented the case. If you were in fact guilty of an error, then he had no right to argue that the railroad was not negligent, as you were an employee of the railroad. That is a situation that does not sit lightly with a man such as Mr. Butler, who is first and last an honest man of the highest caliber."

Adeft nodded that he understood that much of the explanation.

Olin continued, "Now, the good Mr. Trinkem and myself found some leverage for Mr. Butler to use on your behalf in the face of the railroad executives' denial of your full and honest right to employment. Mr. Butler had previously made an argument with the railroad for a correction of the situation but they had refused it saying that the case was done and no longer a subject for discussion. Also, the railroad scoffed at the idea of any appeal as the review judges would be very attentive to the desires of the railroad executives and not care much in contrast for the plight of a single axle ringer.

Now, the leverage that was provided to Mr. Butler by Mr. John Trinkem and his fellow editors throughout Massachusetts, Vermont, New Hampshire and Maine, was publicity. If the railroad refused to correct the matter then they need not be concerned only with your voice calling for fair treatment, they would have endured numerous newspapers printing the story of how Mr. Lloyd Adeft, a competent ringer, had been unjustly and callously cast into poverty and humiliation by the Railroad Corporation even after it had been proven in court that he was innocent of any error."

Lloyd was becoming fidgety at the thought that the railroad company might seek retribution upon him for causing them further trouble.

"This matter concerned the train wreck in which the son of President Pierce was killed," Olin declared, "and that fact alone would have drawn a great readership of the newspapers. Now, it had been President Pierce himself that had wanted a quick end to this case, as related to me by the Honorable Mr. Butler. The railroad would have experienced the ire of the President of the United States for letting the train wreck come back into the public eye under such accusations of vile and unethical procedure." Olin paused again.

Lloyd Adeft was stunned by the fact that the name of the President of the United States of America had entered into a matter that involved such a common citizen as himself. "Oh, my God, Olin!" he exclaimed, "I had never meant to cause so much trouble. Please, tell me what I must do to fix the thing?"

There was general laughter and Mr. Perkins moved to allay Adeft's apprehension. "There, there, Mr. Adeft. All is well and you must please relax. I assure you that this is a happy moment for you and not something otherwise." Noting that the man's wife was also experiencing some fright due to her husband's obvious concern he added, "Mrs. Adeft, there is nothing at all to cause any alarm." Glancing towards Olin Mr. Perkins advised, "My lad, quicken your pace to the good news."

"Yes, Sir," Olin agreed. "Lloyd, Mr. Butler brought to the attention of the railroad his intent to release the news of it to various editors in four states that were eagerly awaiting the information so that they could publish it far and wide. The Railroad Company had the wisdom to believe that often "the pen is mightier than the sword" and

that it would be wise for them to avoid public castigation in the press by quietly providing a just compensation to you. The only requirement they demanded was that none of us, including yourself, would ever mention it in public."

Adeft had sat down and wore a blank uncomprehending expression.

Olin continued, "As a result, the railroad has agreed to the following. First, that you are a competent ringer and that you were improperly discharged from the service of the railroad. Two, you are no longer blacklisted and as a matter of fact they strongly recommend to Mr. Martinmon, that you be held in continuous employment with an increase of pay to eight cents per hour. Third, in recognition that you have suffered embarrassment, loss of reputation, economic hardship and suffering to your spirit, they respectfully offer and beg you to accept compensation in money. This last is why Mr. Perkins is present as he has received by mail a money draft on the Bank of Boston to your benefit." Olin looked towards Mr. Perkins and the Adeft's eyes followed.

The bank president said, with some ceremony, "I have here in my hand a bank draft on the Bank of Boston payable to a Mr. Lloyd Adeft, a recent citizen of our fair town. The dollar amount of this draft can be immediately paid out or placed in an account for Mr. Adeft."

Lloyd tried in his mind to compute the amount of back pay that might be equitable for the difficulty and embarrassment that he had suffered due to his improper discharge from employment. He thought that perhaps fifteen dollars would be the figure. "How much is it?" he quietly asked of Mr. Perkins.

Perkins slowly replied. "It is for two..."

"Only two dollars?" asked Adeft incredulously as he rose up from his chair in an agitated state of mind. "All of this trouble of many people for just two dollars. I am so very sorry for the bother and the time wasted by you good gentlemen. I beg your forgiveness for my having been such a burden..."

Perkins slowly continued. "Thousand dollars."

Adeft fell back into his chair, his face frozen in a look of disbelief. His wife's eyelids opened to twice their normal spacing.

The room filled with laughter and cheering as everyone moved to congratulate the Adefts who were just barely beginning to accept the reality of it all. Judy hugged Olin in pride for the successful result his efforts had brought. The group laughed and joked together with a number of townspeople who had gathered to enjoy the celebration of Christmas Eve and to hear the tale of the Adeft's good fortune. Olin considered it to be justice done for an honest and hardworking man such as Adeft who had done only one thing in his life; his very best.

## Chapter 5

January 1, 1854, was the dawn of a new year that would be filled with old conflicts. The dispute over slavery had raged for so many decades that some people had been born, lived out their lifetimes and then died without being able to detect the slightest advancement towards a solution.

Olin had recently read newspaper reports regarding the legislative actions of a U.S. Senator with presidential ambitions. Mr. Stephen A. Douglas was the Senate Chairman of Territories and the man held a post of considerable significance because of its potential influence over the question of allowing slavery in the new territories. Douglas had previously enjoyed success with his legislative act of "The Compromise of 1850 for Utah and New Mexico" wherein the citizens of those new territories had been left free to act for themselves on all subjects of state legislation including slavery. Douglas termed this "popular sovereignty" but his opponents phrased it as "squatter sovereignty".

Olin and Andre often discussed the subject of slavery because it was an issue of importance to both politicians and religious leaders and that kept it in the headlines of newspapers. Olin had a point of view in regard to the 1850 law. "Those that advocate slavery are happy with the "Compromise" because they know that if they threaten to burn down a man's barn, rustle his livestock, rape his wife and sell his children into foreign captivity then that man would of "his own free will" proceed to the polls and vote for slavery in his state."

"What do you mean of "his own free will"? It sounds as if he would be harmed if he did not vote for slavery," Andre exclaimed.

"The phrase is the height of sarcasm," brooded Olin.

"Huh?" from Andre.

"It means that you are correct Andre. I have read somewhere that if a barrel contains cool fresh water and a cup of sewerage is dumped into it then it is a barrel of sewerage. In a like manner it is often impossible for a hundred good people to persuade one evil-minded lout to walk the path of honesty and righteousness. However it is not uncommon that a single evil person can intimidate and control a hundred good people with threats of bodily harm to them."

His friend's expression displayed somber agreement.

"The Douglas Compromise," Olin continued, "allows entire territories to become easily contaminated by slavery through the acts of a few ruthless and despicable felons that stand to gain great wealth through the subjugation of Negroes."

Andre was concerned with the vehemence of some of the discussions on the subject of slavery that took place in the streets and stores of the town. "Why are people getting so fired up around here? Isn't slavery something that is in the south?" he asked.

"It does not matter if it is your front yard or your back yard, it is still in your yard," Olin replied by similitude. "They view the law as a strategy of divide and conquer on the part of slaveholders because it was meant to avoid a national vote on the question of slavery and thus frustrates the wishes of millions of abolitionists in the Northern states. There are people here in New England that believe that they have a right to help decide



the question of slavery in the country and they are angry at not being allowed to do so."

"Well, at least once we finish the slavery problem then things will settle down," Andre said hopefully.

Olin grunted disagreement. "The tyrannical control of voters is not limited to pro-slavers as it is also being achieved in such places as Lowell, Massachusetts. The textile mill owners station their supervisors at the ballot boxes with lists of the names of all the male employees, and as each mill worker arrives they are recorded on the list as voting and then handed a ballot that has been previously marked for all the candidates that the mill executives wish to have elected. If a worker does not present himself at the polls to vote, or if he does not deposit the mill's ballot into the box while the supervisors look on, then he is fired."

"How the hell can they do such a thing?" Andre wondered.

"Easy. The men allow it to happen as each one fears being the first to lose his job and income."

"Well, why don't the women mill workers vote the way that they want?" Andre demanded to know.

"Women can not legally vote in this free country of ours. The women are very much aware of this corruption of the process of a "secret ballot" and it heightens their desire to have the right to vote as they believe that they would refuse en masse to comply with despotic demands such as those of the mill owners," Olin informed him without realizing that it would be another 66 years before the ladies would have the lawful ability to test their theory.

"Well, I wish them good luck," said Andre.

"They will need it." Olin had read in the newspaper that the reason the entire slavery controversy had come into public view with such intensity in recent times was that Douglas had offered up another bill in the U. S. Senate that would create yet two more new territories and these were to be named, Kansas and Nebraska. The intent of the bill was to once again allow the inhabitants of the territories to decide by their votes whether slavery would be allowed within their borders.

Olin asked Andre, "Do you realize that slave owners have the legal right to enter and search any house in the country if they suspect that a runaway slave is being hidden there?"

"Any house?"

"Yes. The legal basis for searches of the homes of innocent bystanders is the "Fugitive Slave Law" that was part of the Douglas Compromise of 1850. This law allows a slave owner to reclaim a runaway slave in any state and Federal agents are required to assist him. The punishment for any citizen of any state that tries to prevent such a search is a two thousand-dollar fine and six months in jail."

Andre was shocked at the amount of the fine and jail sentence.

"If it is suspected that someone has stolen goods or money in their house," Olin continued, "then a judge must issue a search warrant before the house can be entered. If it is claimed that a runaway slave is in the house, then they can enter without asking anybody's approval."

Andre became suspicious. "Are you just making all of this up? It sounds

absolutely crazy. I'll bet President Pierce puts a stop to it."

"No. It is the truth. And you would lose the bet as Pierce insists upon the Fugitive Slave Law. Such tyrannical actions will without a doubt eventually result in armed confrontations. In an attempt to avoid the dangerous situations that the law allows many "free states" have passed "Personal Liberty Laws" which prohibit the exercise of the Fugitive Slave Law within their borders.

"They have passed a law against a law? That's incredible!" Andre was stunned and confused by the illogic of it all.

Olin nodded his head in agreement." I believe that the enactment of these laws on both sides will paradoxically lead to a lawless nation in dire conflict because quite openly great numbers of the citizens are declaring that they will only obey the laws that they want to obey. I remember the words of Marcus Tullius Cicero, "Law stands mute in the midst of arms."

"Who is Marcus and what is a "pair of doxalees" or whatever you said?"

Olin ignored the question but decided that it would always be best to adjust one's vocabulary to that of the listener. "I tell you Andre, it is stupidity on the part of the slave owners for the reason that out of a slave population of approximately three million, only about seven hundred ran away each year. I have computed that it amounts to two hundredths of one percent of total slave ownership, an amount absolutely overwhelmed by the slave birthrate. For such a minute financial loss the Southerners are on an irrational warlike course of action that will eventually drive a stake through the heart of their own economic and social wellbeing." Andre shivered at the metaphor.

Olin mused. "If the lion is sleeping one should have a very good reason for taking any action that might awaken it. I remember that The British Tea Act of 1773 began to rouse the Colonists to anger. Then the British retaliation for the Boston Tea Party did not merely lose them tax money from the sale of tea, it lost them an entire nation as it helped bring about open rebellion. The British threatened to torture and then cut into pieces anyone that resisted the act. That absolutely infuriated the Americans and ignited the spark of revolution. The Fugitive Slave Law has awakened ire in many northerners who had otherwise been willing to let the question of slavery lie dormant, and it is now driving them relentlessly into the abolitionist camp as they reach for their weapons."

Because Olin had dealings with the adults of the town he was very much interested in their thought processes and politics and also those of other people throughout the country. The basic conclusion that he reached is that the vast majority of people will act irrationally when given the slightest opportunity. The ultimate governors were the mob.

The example that stood out in his mind was derived from data released after the census of 1850. Statisticians had computed the yearly income of the deep southern states at \$110,000,000. They then had separated that into two equal parts and determined how many families earned each half of the wealth. Olin was astounded by the answer, which was that one half of one percent of the families earned as much as the other 99.95% of the families and that the richer families owed their wealth to slavery.

Yet the great numbers of people in the vastly poorer families appeared to be

ready, and even eager to fight and die for the right of the elite wealthy families to remain wealthy slave owners. Olin had then understood the phrase "stupidity personified". He fixed securely in his own mind the fact that he should never underestimate the propensity of adults to act in an ignorant manner, even lose their lives, because of an inability to simply think a matter through.

"Andre, I believe that the question of slavery is becoming ever more intense and that it will eventually lead to armed fighting between past peaceful neighbors. I conclude that either all states will allow slavery or none will, and the matter can only be decided through a war of the states. The concept of slavery is repugnant to me and I know that if push comes to shove I would fight to free the slaves. However, for the time being we must keep our mouths closed upon the subject of slavery because it is too heated a topic among the local citizens and there is simply no sense in making enemies, or awakening lions, unless that would actually accomplish something of value."

"I don't plan to say anything to anybody, but what is a "repug aunt"? Does your aunt Hephra have something to do with this?"

Olin shook his head in self-reprimand. He had quickly forgotten his own rule of vocabulary. "You should not discuss slavery with anyone except myself. If anyone else asks you for your opinion on slavery just lie and say that you have never thought about it much one way or the other."

"All right," replied Andre, "but tell me, what the hell is a "Nebraska"? I have heard that word during the past few days."

"It is a place. A territory. Nebraska is quite a distance away from us and many people have wondered where it might be located within the North American continent. Some wit said that Nebraska was so remote that if the world came to an end today, it would be three weeks before the people in Nebraska learned of it."

Andre guffawed at the absurd statement.

"There was an article in the weekly newspaper," Olin remembered, "that told the story of how houses are constructed of straw bales in Nebraska. There is a great lack of timber in that territory and people have taken to using wood only for the most necessary load bearing parts of their houses and barns. The wall openings below the timber headers are filled with straw bales that bear very little load. These bales have very good value as insulation against the bitter winter winds of the open plains."

His companion was amazed. "How do they dare to light cooking fires inside their houses?"

"It is surprising for most people to learn that straw bales do not burn readily, it is loose straw that is a fire hazard."

Andre could only shake his head and wonder about the strangeness of far away Nebraska. "I have to meet the next train and check on the other boys. I will see you another time." He paused in mid step. "Are you sure that some of what you told me was not a joke?"

"I was not joking about slavery or Nebraska," Olin assured him.

In the following weeks an added source of income became available to the boys. Olin had been invited to dinner the past Christmas at Henry Macnock's home and of course had been very pleased to spend time in the company of Judy. She had

participated in his conversations and planning efforts with her grandfather in regard to supplying food for the boys to sell to passengers at the train depot. She was very capable in thought and action and a very good organizer. She suggested that herself and some of her teenage girlfriends could provide baked goods for sale as well as the cured meat, cheese, pickles and other non-perishable foods from her grandfather's store. This had evolved into a rewarding endeavor for the girls as they now took a share of the profits along with the boys.

The news had spread quickly by word of mouth from the railroad passengers to others that there was food and entertainment to be had at the train stop. Very many of them stepped down from the train during its pause at the station to purchase refreshments and to pay admission to see the "un-cuttable ice" and the "marble race" down a grooved oaken plank. More and more people disdained their own horses and stiff spring wagons in order to ride the train because of the increased availability of victuals, entertainment and comfort.

The lads were earning more money than they ever had before and were eager to spend it as soon as possible, as in the manner of adults. Olin and Andre had counseled the others that their first purchases should be warm winter clothes and shoes and for the first time in their young lives they would be relatively comfortable during the cold weather. They slept wherever they could find shelter, usually in farm barns and Olin fretted over the fact that he did not yet have a solution for that undesirable situation.

Mr. Perkins, the bank president, had agreed to keep the bank open later than usual on a Saturday evening so that Andre and the boys could open savings accounts. Once the accounts were opened Andre was to visit the bank each Saturday and make deposits for into the accounts. They were not saving vast sums but it was a beginning for their future financial security. That was in comparison to a very short time before when they had not the slightest hope of any accumulation of funds.

Olin was very content to have Andre "herd" the other boys of the group in their work and sales activities. He had no wish to become involved in their personal lives to any extent though he was perpetually concerned with their overall welfare. Andre was a natural leader and enjoyed being the mentor for the gang as he was quick to sense the strengths and weaknesses of each boy and to gauge if any particular boy would remain with the group over the long term.

Olin would not explain why, but he had instructed Andre to cultivate a group of four boys in addition to himself in preparation for other business projects that might occur later in the year. The group should not include any boy that was guilty of theft beyond the pilfering of ice chips. Any boy that displayed an undue amount of laziness was to be eased out because the future projects were going to require boys that would be willing to work hard. Anyone that failed to practice good hygiene, to the extent that the wherewithal to achieve cleanliness existed, was also to be let go. Olin unceasingly impressed upon Andre the need for good hygiene by anyone handling the food. Even in the colder weather a pail of water and a bar of soap were on the railroad platform so that all of the boys could wash their hands prior to beginning their sales of food. The baked goods were safe throughout the year because sugar is a natural anti-bacterial substance.

In anticipation of the warmer weather that would inevitably arrive, he had Andre tell the boys the fable of Pandora's Box. In his version the world long ago was happy and entirely free of disease. Then for some reason Zeus became angry with the men of the world, perhaps because they did not honor him enough, and he contrived to punish them. To achieve that end he sent a beautiful young maiden, who was to be the instrument of his revenge, to live in the world of men.

Her name was Pandora and she arrived among the men with a beautiful golden jewel box. She had been warned by Zeus never to open the box under any circumstances, either to satisfy her own curiosity or to comply with the demands of the men. When she put her ear near the golden box she could just barely hear a humming or buzzing noise, and that very much aroused her interest and also that of the men. Soon there were demands that she open the golden box to see what kind of wonderful treasure it might contain. She feared the wrath of Zeus if she disobeyed his instructions but the men crowded about and shouted commands that the treasure they suspected was within be shared out to all. Under the pressure of their heated voices she decided to open the lid just the slightest amount and peek into it. As Zeus saw this he laughed as he had known that the curiosity and greed of men would drive them to force Pandora to open the box, and that had been his plan all the while.

Though she lifted the lid only the smallest amount, out through that slight opening flew two houseflies, the buzz of their wings having been the noise she had previously heard. Pandora immediately shut the box but it was by far too late. Upon a world that had been previously free of disease she had unleashed a horrific pestilence. The two flies mated and they and their multitudes of offspring tainted all the food of the world that they were able to land upon. They were the evil creatures of Zeus and in their uncountable millions they spread disease and death throughout the land while Zeus took pleasure in the devastation of the mortal people.

However, Zeus soon saw that his instruments of destruction were doing their work extremely well and would rapidly rid the world entirely of all human life. It did not please Zeus that all the humans would die because he would then be alone in the universe. So with a wave of his hand he gave the thought to those still living that if they made netting with very small holes and made screens of this netting above their food, then the flies could not gain access to the food and contaminate it.

In the world there were both industrious men and lazy men. Those that did the work necessary to make and use the nets remained free of disease and continued to live happy lives. Those that were too lazy to make or use the nets contracted awful diseases and died slow, lingering deaths.

The fable, as retold to them by Andre, had an immediate and intense effect upon the boys as it evoked visions of the Grim Reaper advancing upon them. Within several days they had suspended netting obtained from Mr. Macnock's store over and around the food as it laid awaiting customers at the train station in the frigid January weather.

Sunday morning January 22, 1854 was cold but sunny as Olin waited in the town commons. Religious services were ongoing inside Reverend Kertabit's church across the street and he wished to speak with the minister when they were completed. As the steeple bell tolled out its rich tones at the finish of the service the reverend opened the

large front doors and stood on the top of the granite steps to wish each member of his congregation a fare thee well. As the last family was going down the steps Olin began to walk from the common towards the church. Somewhat surprised to see his approach the minister stood and waited for him to climb the steps.

Full of curiosity, Kertabit shook his hand. "Have you come to find God?"

"Sir, I am very glad to say that I have never lost God," Olin replied respectfully. "I am here instead about my monthly demonstration to the townsmen and you."

The minister was on the one hand disappointed that Olin was not seeking his religious counsel but on the other hand quite curious about why his first appearance at the church had some relation to his demonstrations to the townsmen.

"Sir," Olin continued, "you have a large bell in your steeple and as we all are aware it is clearly heard throughout the town each Sunday when it is rocked in its cradle and the massive clapper strikes the rim, as it has in just these past few minutes.

The Reverend Kertabit asked, "Why are you interested in the bell?"

"To make a proposal which may or may not gain your agreement. I propose that this next Saturday evening at about 6:30 PM I cause the bell in this steeple to ring without my pulling upon the bell rope to rock it in its cradle. Also, I will not allow the clapper to strike the bell rim. And lastly, I will not use any tool of metal, wood or stone to strike the bell and cause it to sound its peel. There will be the bell and myself." He paused a moment as the Reverend's face screwed up into a look of complete bafflement.

"I propose," continued Olin in a pleasant voice, "that the townsmen position themselves as far away as the limits of the town allow and listen for the bell at that large distance. One of the men, perhaps yourself, would stay with me to witness my actions and assure that I do not use any tool to cause the bell to ring."

The Reverend's mouth hung slightly agape as his mind attempted to cope with the strangeness of Olin's proposal. "It sounds...it appears.... almost sacrilegious. I fear that I could never allow my church to be used in such a manner. I would fear the wrath of God and no less the ire of the congregation."

Having anticipated such a response Olin had prepared an argument. "Reverend, we have heard of statues of the Virgin Mary in foreign lands that upon certain of the church's holy holidays appear to weep tears of blood. The church does not describe this as a miracle, but also it does not define it as sacrilegious.

On these holidays of the church, devout believers enter the cathedrals in rather great numbers to behold such a thing. There is no biblical reference in regard to the weeping of statues, but neither are the statues cast out of the churches. In fact, their presence inside the church tends to increase the numbers of the congregation."

This last comment would have to hide extremely well in order to escape the notice of the Reverend Kertabit. His congregation had become so small that he sometimes wondered if it was worth all the effort to save so few. "How might you do this thing, the ringing of the bell, in a manner that would be acceptable to the congregation?"

"Imagine that upon a Saturday evening," Olin suggested, "the people of the town not expecting to hear the bell of your church, they are then astounded to hear a tone from it. But further, in a greatly different manner than that which they are accustomed to

hear. If it tolled in the usual way they might pay little attention to the sound. But when they hear a quite different sound they might throw open their windows or come out their doors the better to hear the holy tones issuing from your high church steeple."

The interest of the reverend deepened considerably at the phrase "holy tones" and he motioned for Olin to step into the warmth of the church foyer to continue with the discussion of his proposal, both to escape the coldness of the morning and lest anyone overhear their conversation. After some minutes Olin emerged from the church with the reverend's agreement upon the matter.

His walk back to the library would take him past the home of Mr. Martinmon so he decided to stop in and discuss the following Saturday's demonstration with him. As a result of their talk, Mr. Martinmon agreed that at 6:30 PM on the Saturday next, he and the other men would be at the farm of Claude Michaud, just beyond the limits of the town. The Reverend Kertabit would be the witness that was to be at the church when Olin sounded the tower bell.

As Martinmon pondered how Olin might ring the bell without a clapper or other tool he made a joke. "I hope that it does not hurt your head too much."

Olin gave a short laugh. "I will use my head you may be sure, but not in the manner that you imagine."

Upon his return to the library Olin reread the thin book that described the casting and sounding of bells. The makers of large church bells jealously guarded their manufacturing techniques, the alloying of the bell metal and the design of the contours of their bells. Olin was not concerned by the absence of those factors in the book, as he was concerned only with the mechanics of any ringing bell. He was confident that when he rang the church's tower bell its musical quality would sound unlike any of its past pealing and there was a very simple reason why that would be so.

He wondered to himself how he could be so confident that his ringing would be successful when he had never before performed such a demonstration and did not know of anyone that ever had. He realized that he simply had great trust in the laws of nature and as long as he understood them correctly, which he believed he did in this instance, he was certain that all would come to pass as he expected.

The next Saturday evening he walked directly from the barn to the church where he met Reverend Kertabit. He climbed the narrow and rickety stairway to the belfry of the church and waited for the minister to follow him up a minute or two later, the good reverend not being much used to such exercise. The belfry was barely large enough for the bell and the two of them and the reverend wondered aloud how Olin would rock the bell in its cradle without a ton of metal impinging upon their bodies, being unaware that Olin had no intention of rocking the bell housing.

Olin knelt and looked under the edge of the mouth of the bell to locate the usual impact point of the clapper against the bell housing. He could tell from the marks that had resulted due to metal having pounded upon metal numerous times that it was about two hand widths up from the lower edge of the massive bell.

On the outside of the bell housing approximately the same two hand widths up from the rim, he struck the bell with the heel of his right hand. There was absolutely no apparent result from that action that was detected by the ears of either man, but Olin

knew there had been a result. He struck the bell again in the same spot with the heel of his hand. The minister stared at him in confusion and curiosity.

"It will not take as long as the Second Coming, Sir," Olin said. "We will have a result in the near future." And again he struck the bell with the heel of his hand. And again, and again...

The minister was arriving at the thought that for once Olin was not going to succeed in one of his demonstrations of the laws of nature. He placed his hand upon Olin's shoulder. "Now there, lad, it is not going to work. It's all right; you gave it a try."

Not in the least concerned with the situation, Olin reassured the minister. "Listen closely and you will hear something soon." He continued to hit the bell at a rate of approximately one blow per second with the heel of his right hand. The minister cocked his head and closed his eyes, a look of intense concentration now upon his face because he had detected a sound. As Olin continued to hit the bell they heard a constant tone, low and mellow in pitch. The sound increased ever so slightly in intensity each time Olin struck the bell.

"It is the hum tone of your bell," Olin informed Kertabit. "It is the sound made by the flexure of the entire bell housing, not just portions of it." He kept up his cadence of hand strikes as he continued with the explanation. "When the heavy iron clapper strikes the inner housing of the bell it causes a temporary deformation in the shape of the housing. The clapper bends the bell out of shape but the housing metal has springiness and it attempts to return to its original shape. In so doing it goes beyond the original position before the clapper struck it. It then vibrates back again, overshooting the mark and the process repeats over and over. Those vibrations cause the ringing of the bell as it is tolled."

As he talked he continued his hand strikes and now the loudness of the tone caused him to have to raise his voice so that Kertabit could clearly hear him. "The clapper can temporarily deform the bell rather greatly and in so doing various portions of the bell vibrate at different frequencies, giving forth the bell's full tonal warmth. I cannot make those same deformations so we do not hear the other higher pitched tones. But, by each hit of the bell with my hand I impart energy to the bell housing and it will use that energy in accordance with the laws of mechanics to resonate at its hum frequency. A bell of this size will hum strongly for some forty seconds before the sound fully fades away. So as I pound about once per second there is ample time for the small energy of my strike to accumulate."

The minister was delighted that the hum of the bell was becoming quite loud but clearly he did not follow Olin's explanation. Sensing that, Olin decided to employ an analogy. "Imagine that we have a tin can full of water but with a small hole in its bottom such that the water drips out one drop in forty seconds. Next, we spill the water out of the can so that it is empty. Then we begin to put water back into the can at a rate of one drop per second. There is still a hole in the bottom but because it only leaks out one drop in forty seconds the water goes in faster than it comes out, and in forty seconds we gain thirty-nine drops in the can. If we keep putting in the water, eventually the can will be full again even though it has a leak."

The Reverend Kertabit appeared to understand the analogy so Olin continued. "I



am putting mechanical energy into this bell one hand slap per second but the bell is only ridding its self of the amount of energy contained in a slap every forty seconds or so. If I slap at a faster rate, which I am about to embark upon, I can cause the bell to hum louder yet. If I do not tire of doing it, I can slap this bell until its tone is heard for miles. The bell loses energy to the air as sound and also in the metal in a manner similar to friction. But a well-designed bell, such as this one, is constructed both in material and shape so that the metal losses are at a minimum. Thus the greatest amount of the energy of my slaps results in sound."

The minister's face took on a delighted look of understanding and satisfaction with the situation. The loudness of the bell hum had risen greatly and he noticed that people that he had seen walking on Elm Street, some hundreds of feet distant, had stopped and were looking up towards the church steeple. With happy excitement he instructed Olin to keep hitting the bell, as he wanted to descend the stairs and go outside the church to listen to the bell himself. Olin started to strike the bell at a quicker pace and immensely enjoyed the rising volume of sound issuing from nearly a ton of vibrating metal.

The townsmen had assembled at Claude Michaud's farmhouse at the appointed hour. This French farmer used quantities of his corn for a product other than muffins. His "liquor still" was behind the rear of his barn so that he kept the flame outside the structure, but by means of copper pipe he collected the liquor in earthenware crocks inside the barn, safe from pilfers and raccoons. It was not unusual that less safety conscious distillers would meet their end because they kept their cooking vat inside a building. Alcohol vapors would sometimes collect within a closed structure and cause horrible injury or death when the vat and building exploded.

The townsmen had purchased a jug of Michaud's white lightning with the justification that they would be waiting outdoors in the cold and dark for the sound of the church bell. They talked among each other and the farmer while their feet grew cold with the winter temperatures and their throats grew warm with the liquor. They did not know exactly what sound they would be listening for but they expected that it might be like the pealing of a distant bell.

As they drank the brew and talked they each sensed a hum in their ears but did not mention it to the others because they had attributed the low sound to some effect of the alcohol. As the hum became louder one of them stepped away from the group in order to listen beyond the noise of their voices. Seeing this the other men ceased talking and listened intently.

"I hear a hum, but it is not like a bee's wings," the mayor exclaimed. "It has a quality of tone much different than an insect's noise." Other of the men nodded agreement but remained silent in order to hear their best.

"That sound appears to be from a bell," Will Hiram suggested, "But not the usual pealing of a bell. It is the sound that you hear slowly fading away after the clapper has finished striking and all the other tones have stopped. The last residual sound or hum of a bell." Others nodded their heads in agreement.

Olin knew that low pitch sounds travel much further than high pitch sounds. He had read that elephants communicate over miles of distance with low pitched rumbling

sounds and he had been confident that the sound of the bell would reach Michaud's farm in the same manner that the voices of elephants or the rumble of thunder could be heard over great distances.

As the volume of the bell's sound rose with each subsequent slap of his hand he viewed the Reverend Kertabit standing some distance below in the street with a group of about forty townspeople and they appeared to be engaged in brisk conversation. At that distance he could still see that Kertabit was smiling so it would seem that the people were not complaining.

Finally the pain in his hand had increased to the point where he felt it wise to cease slapping the resounding bell. He slumped back against the pine timbers of the bell house and relaxed for several moments in satisfaction and relief that his experiment had actually worked. He then climbed down from the tower to the nave of the church to await the return of the townsmen from Michaud's farm in Mr. Martinmon's wagon.

When they arrived and gathered inside the building Olin explained to them what he had done to achieve the sounding of the bell and why they had been able to hear it across such a distance, noting that the height of the church steeple had been a great advantage. The men were amazed that the energy of hand slaps could accumulate to cause such a demonstrable effect and several of them climbed to the steeple in order to slap the bell themselves.

When they reassembled in the church nave Olin pointed out that all objects have a resonant frequency, in many ways similar to the frequencies of musical instruments. On occasion the failure to recognize that fact could result in disaster. It was common practice that marching military troops were halted just before a bridge and were then ordered to "break step" and walk across the bridge with each man at his own pace and length of step. The reason for this precaution was that there had in the past been occasions when the cadence of the foot falls of large numbers of troops had excited the natural resonant frequency of the bridge structure and had caused such strong vibrations that the bridges had collapsed.

Having been very happily entertained by the ringing of the bell and the explanation of it, the townsmen went away to their homes. The next morning would bring the reckoning of having drunk a little too much of Michaud's brew.

While Olin had been talking to the townsmen inside the church the Reverend Kertabit had been holding forth with curious members of the congregation on the church steps. They had clearly heard the hum of the bell and bundled out in the cold weather to investigate its cause. Kertabit explained to them Olin's actions and expressed his sincere belief that it was not sacrilegious in nature. Actually, none of them had thought that it was.

The pharmacist Albin Lewis was lost in thought for some moments before speaking. "We must keep this to ourselves. I mean the manner of making the bell sound that way with its wonderful hum. Now Reverend, listen to me on this matter. You have a nice church and you are a good reverend to us. But we can have something more if we keep our mouths shut. Every church wishes to have some distinction that perhaps other churches do not. Some even have a silver bell in their steeple and people come from miles around to hear it chime. And when they do they also buy goods and foods from

the local stores.

We can have the mysterious humming bell and we might make it hum only on certain church holidays. Thus visitors will know on which days to arrive and we can plan to have refreshments and other things available for their purchase. This could also enlarge the congregation Reverend, take my word for that, but we must keep quiet about the how of it. It must be the secret of the town. And thank Olin for his gift, which costs us nothing, but which can earn us income and fame. "

All present nodded agreement and Reverend Kertabit said confidentially; "Alright then, you all accept my plan to keep this a secret so go now and tell your friends and relatives to be hushed on the subject."

## Chapter 6

In February the furniture maker, Ingmar Olsen, visited the railroad maintenance barn to ask Olin's advice in regard to a curious matter. Olsen was an elderly man of heavy build and Nordic appearance. Olin had encountered him on occasion in Mr. Macnock's store and they had spoken briefly several times. The man was confronted with a dilemma that he hoped Olin would be able to help him overcome because he had heard of the boy's knowledge of science.

After greeting Olin he described his problem. "On my property there is an ancient pine tree. This tree is more than likely greater than one hundred feet tall. Age and storms have weakened this tree and for the sake of the safety of my family I should cut it down. If it falls of its own accord it is clearly tall enough to land upon the roof of my house or of my nearby furniture workshop. The only clear direction to allow it to be cut and fall is in the narrow space between the house and the workshop. But, in that direction I have my hen house full of birds, some one hundred and seven feet from the base of the tree. If the tree is taller than one hundred and seven feet it could, when cut down, smash the hen house and kill at least some of the birds. If I let that happen I will be seen as a fool."

Olsen paused for a moment to see if Olin had a question. Olin already knew how to solve the dilemma but he simply asked, "Is there more?"

"Yes, because on the other hand," replied the worried Olsen, "if I remove all the chickens from the hen house, with some trouble, and find another place to lodge them, also with some trouble, and then I have the hen house moved out of the way, with considerable trouble, only to discover that when the tree falls all of that trouble was wasted because the tree would not have reached the hen house in the first place, then I will appear to be even a greater fool." Olin remained silent.

"Now," said Olsen further, "there is of course always the possibility that one of my sons could climb the tree to its top taking with him a length of twine that he allows to dangle beneath him, and when he reached the top we could mark the twine at the level of the ground. Thus if we later measured the distance along the twine between the end he carried aloft and our mark it would reveal to us the height of the tree. But I dare not send one of my sons up the tall tree for when they were born they apparently suffered from some defect, from their mother's side, that caused them to be expert at having accidents. I have previously lost one son through his carelessness and I fear to send another one to a great height by means of brittle dead branches to climb upon." He looked at Olin with a beseeching expression.

Olin smiled at the man to relieve his anxiety. "We can measure the height of the tree at about noon this next Sunday. You should have then a ball of twine that you are sure is at least as long as the shadow cast by the tree upon the ground. The sun will be at about its highest at noon and the shadow the shortest so that you shall require the least string. You should send someone within the next couple of days to confirm to me, that about noon the tree shadow is completely upon open ground and not across one of your large buildings. Otherwise we will have to choose a different time. If it is over the chicken coop that will not be a problem as it has a low roof."

Mr. Olsen stared at Olin a moment in some confusion. "But Olin, the length of the shadow changes continually depending upon the angle of the sun in the sky. I cannot understand how measuring the shadow at noon will reveal the height of the tree. And what does it matter if the hen house roof is low or high? Also the end of the shadow extends far beyond the coop which is why I think that the tree will fall upon it."

"It does not matter if it is noon or some other hour, we can make the measurement at any time between sunrise and sunset. It is simply both simpler and warmer to do it at about noontime just as long as the shadow is not across a tall building. When you see how it is done you will immediately understand the method."

Mr. Olsen nodded his head in acceptance of the instructions on the one hand and shook it in mystification on the other. "I will send my granddaughter Samantha, to tell you when the shadow is fully upon the ground." Having his business to tend to and not eager to give Olin the time to consider charging him he bid the lad good-bye and left the barn.

At the end of the workday Olin walked from the train barn to the Macnock store to buy food for supper. As usual Judy was working in the store and waited behind the glassed food case for Olsen to decide upon his selections. They were always quick to smile at each other and this did not escape the notice of Mr. Macnock who very much liked Olin and hoped that some day he would ask for Judy's hand in marriage. And the sooner the better he thought, based upon the number of oafs that had been hanging about the store trying to catch Judy's eye. Olin announced a selection of smoked meats, cheeses and pickles to her along with the weights and quantities.

She began busying herself with the slicing of the meats. Jokingly she teased him. "Olin, you are going to get fat, you have chosen enough food for two people."

When she looked back up at him the sight of his narrowed eyelids caused the smile to vanish from her face. He was expressionless and as his eyes locked with hers he slowly shook his head to the left and then to the right as an indication that she should not continue such remarks. She glanced to the front of the store and observed Mrs. Watsen talking to her grandfather. Neither of them had heard her comment.

She quickly changed the subject by asking about his work at the train barn. The smile returned to his face and he described to her the amount of work that had been done to replace the defective cast iron train wheels. They chatted until the food had been sliced and wrapped. She added up the cost and he paid her in silver and copper coins, as usual touching her hand lightly as he passed over the money. He bid Judy, her grandfather and Mrs. Watsen good evening and left the store.

He stopped at the bakery for a fresh loaf of bread and then walked slowly to the library. After being especially careful on this evening to assure that there was no one about he unlocked the door and let himself inside. He closed and locked the front door, and then walked past the bookshelves to the door of the storage room at the rear of the building. He knocked lightly on the door three times, paused, and then knocked two more times lightly. He heard the inside lock bolt slide and the door opened a crack.

The face of the female Negro, whose name was Holnami, took on a look of relief upon seeing that it was he and no other person. The woman was perhaps twenty-five years old with short black hair and a slight stature. Her teeth were in good condition, an

exception among people in 1854, and her facial features were moderately attractive. Her accent hinted of Virginia and her vocabulary was very good, the result of having been raised as an inside slave in a southern mansion where educated people resided.

Olin set the wrapped food, which Judy had correctly observed was enough for two people, upon a small table and let Holnami open the parcels. Her training as a house slave required her to insist that he take his portions first and after he had done so she began to eat her share with apparent hunger but also with reserved etiquette.

It had been his Aunt Henphra that arraigned for Holnami to be secreted in the back room of the library. The librarian was an abolitionist dedicated to the furtherance of the Underground Railroad but only a select few of the town's residents were aware of that fact. One of them was Jake Lorrent, the owner of the livery stable and he also was deeply secretive in regard to his involvement in helping to move escaped slaves northward into Canada. It was not unheard of that an abolitionist home or business would be torched in the middle of the night by northerners that strongly supported slavery. Their motives were diverse. Some held slaves themselves, others had relatives or friends in the south that owned slaves, and yet others did business with plantations and companies located in the south that depended upon slave labor.

Holnami had escaped from a Virginia plantation and had been passed from one clandestine house to the next until she reached Boston. A gentleman arriving by train from Boston had then brought her into town in outward appearance as his wholly owned slave and few people paid them any notice. The man had visited the library under the pretense of seeking a particular book and he had left with that book, but without Holnami who Henphra had secreted into the storage room when no one else was in the building.

It then became Olin's task to care for the Negro assuring that she had food and drink and that she remained undetected by the daytime patrons of the library. When Holnami had eaten and satiated her hunger Olin gave her some information. "It will be Saturday night when we leave here, three nights hence. I have arraigned for two horses because we will have a considerable distance to cover." He did not reveal that it was Jake Lorrent that would provide the steeds, it being best never to reveal anyone else's name unnecessarily.

"We will ride bareback so as not to risk the loss of saddle gear if chased and caught. If we get separated then simply ride fast northward by reading the stars as I taught you last night. When you no longer have a need for the horse tie its reins over its neck and turn it loose. The horse has made the trip several times before and always knows how to return to its master.

If you are caught with the horse, then do not turn it loose because they will follow it back. Instead throw the reins down on the ground as the horse has been trained to stand and wait when that has been done." He did not have to explain to her that Jake would prefer to lose the horse rather than to have it lead malicious pro-slavery men back to his home and stable.

Holnami nodded her head to indicate that she understood the instructions. "I know that slave holders will in the dark of night burn the houses of people that help slaves to escape so I will never let anything happen that would cause harm to you or

anyone else in this town. I know also that there are rewards of up to \$500 or so for people that capture escaped slaves so there will be many greedy eyes watching for us. Will we have any weapons?"

"No," stated Olin emphatically. "You would be much better off to be captured and then have to escape again, than you would ever be if you injured or killed a white man. Our only weapon will be our wits."

His aunt had told him that Holnami's master had sold her year old daughter and that the principal reason she had run away from the plantation was to search for her child. He reached for some more cheese to nibble and asked her, "Why did your master sell your daughter and do you know where she is now?"

Tears welled up in her eyes and she took a moment before answering. "My master sold her because he did not want me paying attention to my child and thus neglecting his. My only duty was to be to his young white children.

About a month after my daughter was sold, I know not to whom, I encountered a white lady who was a stranger to me. We were in the cloth merchant's store and as I searched for material to make a shirt for my master's son she moved next to me and in a low voice quickly told me that my daughter was now in Montreal, Canada, and that I should try to get to that city. The people that had bought my baby had done so only to be sure it would be taken to freedom in Canada. If I did get to Montreal I was to go to a certain shop on the central boulevard and say a particular thing to the lady there. I was to say "Ofina", which is my daughter's name, and one other word that I will tell to no one, not even you."

Olin responded flatly, "Do not tell me anything else. In fact you told me too much when you mentioned the shop. But do this for us. When you have once again found your daughter send a letter using the name Jane Morgan and a return address that you are certain does not exist. The envelope is to be empty except for a blank sheet of paper, as if a person forgot to put in the actual note before sealing the flap. And it is to be addressed to the librarian of this town. Our town hall has a place, a message board, where citizens can tack notes for various reasons. When we receive that letter we will tack the blank piece of paper to that board and a number of people will know what that means."

She nodded that she would.

He wondered about her husband. "What of the father of your child? Is he still held as a slave at the plantation that you escaped from?"

She cast her gaze down to the floor, took a deep breath and then looked up at him. "He is at the plantation. He is the master of it."

Olin was shocked. "He sold his own daughter?"

"In his mind he sold property," she sighed. "To him his only children are his white legitimate ones, the spawn of a white woman under a legal contract of marriage. To be truthful it would hurt the less if he sold my daughter because he was ashamed to have his relatives or friends know that he had relations with a black slave. At least then there could be the minute hope that he actually possessed a feeling of fatherhood, of kinship.

But he believes her to have been property, no more meaningful than a calf from one of his cows and I was no more to him than one of his barn animals."

She paused in thought. "Olin, it will come to war. It is not possible to reach a meeting of the minds with such a person. Slavers are not capable of considering such an occurrence. They will pick up their weapons and either they will win or we will win and only when the one or the other is beaten into submission will the question of slavery be settled. There will be no middle of the road, no live and let live, no compromise, and no sensible debate.

They will accept only that no one prohibits their ownership of slaves and their inviolable right to determine the destiny of their human property. If anyone persists in opposing them then "they will cry havoc and let slip the dogs of war", as Shakespeare so knowingly put it in his writing of "Julius Caesar".

Olin was surprised by her knowledgeable words.

Holnami continued in a sullen tone of voice. "And there will be men of the north that join the men of the south because they are separated by only one word. Those of the south are owners of slaves; those of the north are holders of slaves. The mind of the slave owner or holder is like the pupil of the eye; the more light you shine upon it, the more it will contract. The more that they are pressured to end slavery, the more will be their urge to wage war"

Olin was taken aback at her vocabulary, her ability to analyze the issue of the psychology of slavery and her knowledge of the classics in literature. "How is it that your vocabulary and education seem to be at least the equal of a well-schooled white woman?"

"Because I am a well-schooled black woman," she replied. "My master's oldest daughter was tutored at the plantation by a number of fine teachers. As I was always to attend to her needs I was with her during every lesson. Whatever she was taught I learned ten times better as compared to her because I wanted to learn every single thing that I could, while she wished only for the lessons to be over so that she could frolic with her friends and dolls."



## Chapter 7

Leaving Holnami in the storage room each day, Olin continued with his work at the train barn. Late Friday afternoon Samantha Olsen, the granddaughter of the furniture maker Ingmar Olsen arrived to carry a message to him as her grandfather had directed. As Olin looked up from his work he saw an attractive, blonde, blue eyed, fifteen-year old that was a bit on the plump side. Because of the chill February day she wore a heavy knitted shawl over her shoulders and beneath that a blue waist length wool coat.

She had been more than happy to comply with her grandfather's instructions because she was not at all averse to being sent to talk to Olin whom she had noticed about the town. The possibility of a flirtation had generated eagerness within her to make the visit. She sauntered up to him and spoke in an overly sweet tone of voice. "Hello, Olin. I'm Samantha Olsen."

He had been forging wrought iron hinges and continued to hammer the red hot metal into the required shape as he waited to hear the information sent from her grandfather.

She watched him at work for a while before speaking again as she was distracted by the rippling muscles of his arm as he swung the forge hammer. "Gramps says that the shadow lies towards the hen house at about one o'clock in the afternoon." She added a pretended after thought. "And, Oh yes, he says that you should stay for Sunday dinner."

He rightly suspected that the dinner invitation was her invention so he invented an invitation of his own. "Please give him my regrets but my aunt Henphra is preparing her special herb, dried apple and bread stuffed chicken for Sunday dinner and it is a necessity that I do not insult her by my absence from her table on that day."

He placed the wrought iron strip back into the hot forge coals for re-heating and hauled upon the bellows chain to cause it to fan fresh air through the heap of glowing fuel.

Samantha thought that his statement hinted of prevarication but she could not be quite sure. "Well, I..., I mean my grandfather will be sorry to hear that, he having been looking forward to your company and all," she said with some disappointment. She stood silent as she observed him pull the iron from the hot coals with forge tongs and place the strip into the jaws of a small vise. He then deftly twisted and bent the piece easily into the desired shape. In her mind was the thought that he could bend and form hot iron as easily as she could new baking dough.

Watching him work the hot iron had brought to her mind the memory of Judy wearing a small wrought iron heart on a string about her neck during school that day. Valentine's Day had been the previous Tuesday. "Will Judy Macnock be there at your aunt's dinner?" she asked. She looked closely into his face in an attempt to determine if he was being truthful.

He looked her straight in the eye. "No, she wont, she knows nothing of it." That was the truth because there was no planned dinner at his aunt's house that Sunday. He cautioned Samantha. "Now, you must be careful when you are near a forge. The coals

can snap and crackle and spit out fiery pieces that might hit your face."

She flinched and stepped backwards at the thought of such a dreadful occurrence. Samantha had a morbid fear of any harm coming to her body, no matter how slight.

He dipped the hot iron into the slaking barrel, the boiling and hissing water serving to cause her to step further back as he said, "Please be sure to tell your grandfather that I will be at his residence at one o'clock this Sunday next."

She nodded that she would and having become uncomfortable by being near the dangerous forge she reluctantly decided to leave. She turned and started to walk out of the train barn with overly slow hip rolling movements that were clearly evident because neither the shawl or her coat fell below the small of her back. To be sure that he was watching she called back over her shoulder. "I will see you on Sunday. Bye now."

Olin turned to wave but then only half turned back to his work, justifying in his mind his continued observation of her slow and graceful walk as a matter of safety, for she might be about to accidentally trip over a tool or train part and he must be prepared to alert her to such a danger.

It was quite dark by the time he had left work and walked to the library. He let himself in, re-locked the front door and went to the door of the storage room where he knocked the agreed upon code. Holnami blew out the candle that had been lit in the windowless room and then unlatched and opened the door. She closed it again in the darkness before Olin struck a match to find and re-light the candle.

He opened a book that was written on the subject of astronomical data and computed that for their town on Sunday, February 19, 1854 at one o'clock in the afternoon the sun would be at an altitude of 34.4 degrees above the horizon. From mathematical tables he learned that the trigonometric cotangent value of 34 degrees and 24 minutes was 1.4605. This meant to him that if he measured the shadow of the tree upon the ground at that date and time that it would be 1.4605 greater than the actual height of the tree that caused it. He made some further astronomical calculations and then turned to Holnami. "The sun will set at 5:22 PM tomorrow which is Saturday, February 18, 1854. The moon will rise at 11:35 PM and be waning gibbous, showing about seventy percent of its disk. We will leave just at full dark and by the time the moon is above the horizon we will be at Contoocook and someone will meet us. They will take you to another safe house for a night or two. Then they will move you further north towards Montreal and your daughter. When you arrive there you should turn yourself in to the nearest authorities, who under Canadian law will assist you as slavery is outlawed in Canada, and they will not abide by the Fugitive Slave Law." They ate their supper and then settled down to sleep in the cold room, each cozy under a feather filled "fluffer-duffer" quilt.

The next morning he left her secure in the library storage room and walked to Jake Lorrent's livery stable. As he entered the stable he greeted Jake with a statement. "Mr. Martinmon will need a double team and wagon in order to haul out the last of the cracked wheels to the foundry. I can help you hitch it up. I will ride it to the barn and return it about quarter after six o'clock this evening."

Jake Lorrent was a middle-aged man of medium build with brown eyes, dark hair

and a receding hairline. He wore a trimmed beard and his complexion was weathered from the winter sun and wind as a result of his ice hauling work at the lake for Harald Skanter, the owner of the ice business. It was Jake's team of horses that pulled the cut ice blocks from the frigid water of the lake.

As they worked to harness the two horses Jake asked in a low voice, "When?"

Without being obvious Olin glanced about to be sure no one else was in the stable. "Tonight," he answered.

"They will be my two best mounts," Jake stated. "So if you lose them you will work your life away shoveling manure out of these stalls to make up for them."

Olin knew that Jake was making reference to the two horses which he would find waiting in the forest later that night. When the double team was hitched to the wagon he mounted to the drivers box and lightly snapped the reins. The horses leaned sharply into their harnesses and the wagon moved briskly out of the livery stable and at a trot the horses pranced their way up the street towards the train maintenance barn.

The day was spent hauling the massive train wheels to the foundry and shortly after six o'clock in the evening he returned the rig to the livery and walked back to the library.

At deep dark he and Holnami left the library without being seen by any of the town's residents. They were dressed in dark, heavy long coats and black knit caps to ward off the February cold. They walked into the woods behind the library and after moving slowly along between the trees for some ten minutes they encountered the dirt road that led north past the farm of Claude Michaud. They began to walk hurriedly upon it until against the star lit sky they could make out the black shape of a great oak tree on the right hand side of the road. As they neared it they discerned that beneath the tree there were two dark colored horses. Holnami was quite agile and was atop her horse even before Olin could manage to offer to help her mount. He clutched the mane of his horse and swung up also, but more awkwardly than the slave girl had managed to mount.

They did not expect to encounter any other riders on the road at night so they stayed upon it in the northerly direction away from town and towards Michaud's farm. They made good time for the next fifteen minutes by trotting the horses and as their eyes had long ago become accustomed to the dim starlight they had no difficulty in seeing the road for some distance ahead.

As they neared within a hundred feet of the turnoff from the road to Michaud's farm Olin noted that Holnami had cocked her head slightly to one side as if to listen to some sound. She slowed her horse as she rode along his right side and he followed her lead even though he had not detected anything odd by sight or hearing. They continued walking their horses up the road but he could sense that Holnami had become acutely alert to something so he peered intently into the darkness, his eyes scanning back and forth from the trees and bushes on one side of the road to those on the other. He was aware that while attempting to see at night an object was often more visible when seen slightly to the side instead of directly to the front so as he examined every suspicious bush he let his eyes shift slowly back and forth across its dark shape. He saw nothing and heard nothing.

Holnami pulled her horse to a stop and whispered an alert. "I can smell him."

Olin could not fathom her statement but he resisted asking aloud what it was that she meant by it. He became highly vigilant and continued scanning the dark bushes and trees.

A few moments later Holnami whispered more information. "He is mounted because now I can smell his horse also."

Olin was further taken aback at her new statement but he somehow did not doubt her. A mounted man was waiting in the woods. But who was it? Why at this hour of the evening? Why at this place? It was completely nonsensical. Unless they had been betrayed. But only two people knew of the date and time of their departure, he and Jake Lorrent. And he would trust Jake with his life.

A loud rustling and crashing noise in the bushes shattered the silence of the cold moonless night. It came from the left-hand side of the road some ten feet to the front of them. A horse and rider burst out of the bushes and blocking their path the man demanded in a loud gruff voice, "Stand with your hands up or I will kill you!"

Olin saw the dull gleam of starlight upon a pistol barrel and knew that they were caught. But by whom? In the dim light he could determine that the man was of large build and concluded that he probably would not be successful even if he found the courage to grapple with the stranger for possession of the revolver.

The intruder leaned forward in his saddle and poked the gun in Olin's direction. "Get your hands higher in the air and keep them there!" It seemed apparent that regardless of the dim light the man had been able to detect by their outlines that he had encountered a man and a woman and he kept the gun pointed at the one that he perceived to be the greatest threat to himself. Olin kept his hands up in the air realizing that at this point discretion would be the better part of valor as he stared at the starlit pistol muzzle.

The dark bearded man leaned slightly towards the direction of Holnami and in a pleasantly surprised voice he chortled his discovery. "Well, well. A darkie woman, I think. Perhaps tonight is full of my good luck because you might be a runaway and I might be \$500 the richer!"

It was apparent now to Olin that the man had not expected to encounter a Negro and that the crossing of their paths was a complete and unfortunate coincidence. He realized that the man was a highway robber, a common thief. Perhaps the man had plans to raid Michaud's coop for a chicken or the pens for a piglet to satisfy his breakfast appetite and that he was at first as startled as they had been to discover another about in the dark of night. Being a hoodlum he had simply taken advantage of the encounter to attempt to rob them of their money and horses, a bigger prize than a squawking pullet.

Holnami burst into a laugh and Olin guessed that the tension of the moment had unhinged her mind somewhat. "Oh no, Masser, I no runaway," she boisterously explained to the armed man. "I be Masser Parks' blakie what he rent to youse white boys ala time. I like the white boys and Masser Parks like his coin from youse. Hey, masser, youse got likker? I like corn likker, it get me all warm like and make me laugh." She giggled and displayed no appearance of anxiety whatsoever.

The bandit's hopes for a \$500 reward quickly faded, as she certainly did not seem to be a runaway slave. He now began to calculate the value of their horses and hoped that they had some money upon them. From her words he suspected that the male with her had rented her services as a colored whore from Mr. Parks.

"Hey, Masser, "Holnami said in an enticing voice, "ya know, maybe we ha' fun and Mr. Parks don't get no coin from youse. He got nuff gold, the bassard, so 'ell wi' him."

Olin could see the white of the man's teeth in sharp contrast to his full black beard as the thug smiled expectantly in the darkness.

Holnami encouraged him further. "Hey Masser, let me feel yo whiskas, I like a man wi' whiskas. Ya look strong too. I bet you is got good white man muscle. I like good strong white mans do what he want wi' me."

"You can be damn sure dark lady, that I got what you need," the now aroused man asserted. "You seem a pretty gal, let me see you a bit closer."

He tightened his knees upon his horse's sides and it moved a few paces forward to come aside Holnami's horse. In the doing of that he kept the revolver pointed directly at Olin's midriff. Holnami reached out with her left hand and entwined her fingers into the man's thick long beard as she smiled directly into his face. He smirked lecherously in the starlight, still pointing his gun towards Olin who sat frozen upon his horse off to the man's right side.

The smile disappeared from Holnami's face and she abruptly turned her head towards the side of the road to her right, away from Olin, in a listening posture. It seemed possible that she had heard someone else approaching. Her hand was still entwined in the long hair of the man's beard. Instinctively the man swung his gun hand and his eyes away from Olin and towards the bushes on his left and fixed his gaze there, listening intently also. In his doing it the gun had momentarily pointed directly at Holnami's heart.

Olin saw the man's head jerk suddenly downward. He realized that Holnami had pulled upon his beard with all her strength and he believed with a rising sense of horror that the slender woman was going to attempt to overpower the hulk of a man. He started to rein his horse closer toward them so that he could assist her in the struggle but he was absolutely convinced that they would soon be lying dead upon the frozen ground.

Holnami's right hand rose high in the air and then arced down towards the man's bowed head. Olin observed that there was a black extension to her hand but he could not imagine what she was gripping in her right fist. There was a sound that made Olin imagine the thud of a large stone being dropped upon the ground from waist height. It was a dull sounding but substantial impact. The man slowly tilted in his saddle away from Holnami. He continued tilting until he fell off his horse and onto to the ground. It had been the movements of an unconscious man.

Olin jumped down from his horse and retrieved the man's pistol. He grabbed the reins of the outlaw's horse and then leapt back up onto his mount. They heehawed the horses and broke into a gallop up the dirt road in the northward direction. As he rode Olin was befuddled by the entire occurrence. First the man had appeared out of

nowhere, then Holnami spoke as if she was an uneducated tramp, then by some miracle the thug lay unconscious in the dirt road, and now they were ridding as free as the wind north towards Canada. They galloped onward for some minutes until he sensed that the horses were becoming winded at which time he decided to rein in and dismount to walk for a while to let the horses regain their breathe.

"What in the world did you hit him with?" Olin asked Holnami as they stepped along the road.

She chuckled. "A sock full of lead bird shot. I was certain that sooner or later I was going to need to protect myself from someone and pondered which weapon would be the best to have on hand. Not a knife, as I might kill someone or they might take it and kill me. The same with a gun. However a black sock full of bird shot goes nearly unnoticed and doesn't make any sound as I walk. And is easy to grasp and swing. It magnifies what strength I do have in my woman's arm. If it was found on me before I could use it an assailant might even laugh at it and it would not incite as much anger as a knife or a gun."

Olin chuckled. "I would say that you made the right choice, you could have dropped a grown black bear with that swing. But his revolver was pointed at your heart, I am sure. Why did you take such a chance?"

"You are risking your life for me," she responded, "and the most terrible thing that I could imagine is that someone might lose their life for the reason that they were helping me. Of the two of us, if one had to be shot, it had to be me because otherwise I would live my life in total remorse and misery. And that would be no life.

But I was actually safer than it appeared. He had his gun aimed at the bushes at the side of the road as he suspected that someone might be hidden there. The reason that I pulled his head down was to prevent him having the space to swing his arm and bring his pistol to bear upon me. If he had pulled the trigger the shot would have gone harmlessly into the bushes."

They walked a while in silence since there was no hurry. They had galloped over a distance that they had planned to trot and thus were ahead of schedule.

"Why do you think that he was there?" Holnami finally asked. "Did someone give us away?"

Olin reassured her. "No, I don't think that he had the slightest idea who we might be before he accosted us. I suspect that he is a roving thug and had been lurking about the Michaud farm in the hopes of pilfering a small animal to eat and when he saw us it appeared to him that providence was going to provide money, horses and a woman. I find it remarkable that you could actually smell him before we saw him."

She shrugged. "Some people have excellent eyesight or hearing, I have an excellent sense of smell. I can smell a pastry and without seeing the recipe determine what ingredients and spices were used to make it."

"What will you do after you reach Montreal and find your daughter?"

"I will attempt to obtain a job teaching," she replied. "I have been told that there will be many Negroes there that require an education. I will also attend law school. A sock full of birdshot is all right in an emergency but to successfully fight slavery it is necessary to have much more effective weapons. The law, when used lawfully, can be

a powerful weapon. The Fugitive Slave Law is an example of the law being used unlawfully. It allows one group with selfish and despicable interests to trample upon the rights and property of fellow citizens. In any other nation that would be unlawful."

"Holnami, can you speak French? I understand that is the first language in Canada."

"Oui, je parle Francais. But my master's daughter never managed it. A second language is a wonderful tool and I learned every one of her lessons, so the tutor's efforts were of benefit to someone."

"I am sad about something," Olin remarked. "America is a great nation in many respects but it also has a great failing in that it drives people of your value out of it."

"Not forever," she replied. "It is the nation of my daughter's and my birth and we are American citizens. Someday we will return to America. All my life I have thought about slavery and as a result I have reached the firm conclusion that such an atrocious aspect of humanity cannot persist. By either peaceful means or war, it will be abolished. I pledge myself to help achieve abolition through peaceful means, but if that proves to be impossible I will swing a sock full of lead bird shot when the need arises."

Her words caused his thoughts to return to their encounter with the highwayman. "That thug may or may not raise the alarm when he awakens. That probably depends upon how many other crimes he is wanted for by the sheriffs. He would also want to capture you himself; both to gain vengeance and also to claim any reward your master may have offered for your return. When I pass back this way later in the early dawn I will ride well clear of the road near Michaud's farm on the possibility that the man is still about. I do not want him to be able to see me by daylight. You should give his horse and gun to the people that will meet you at Contoocook."

After the horses were sufficiently well rested they remounted and rode at a trot. Before moonrise they crossed the Piscataquog River by the Kennedy Hill Bridge two miles east of Goffstown. Olin had memorized maps of the area and at the second fork in the road he went left onto Locust Hill road which would lead them to Paige Hill road and the route to Hopkinton, some fifteen miles further north. By the time they reached Hopkinton the moon had risen over the horizon. That was an advantage because they would soon ride cross-country off the roads in its helpful light.

He gave instructions to Holnami. "Be watching for a blue light to the north or just east of north. It will be at a height upon Rattlesnake Hill and you will meet friends at the base of that hill, east of Contoocook. They have a blue glass on the oil lamp to minimize its brightness. There are also blinders on its left and right sides so the light shines only in a small angle to the front. All of that is to prevent its accidental notice by people that might be awake at this hour in town or on the farms hereabout."

A short while later they spied the distant blue lantern atop Rattlesnake Hill and turned to their right off the road and into the fields. As they rode their mounts over frozen farm fields it was an easy matter to keep the lantern in view. They were within two miles of the lantern and soon covered the distance through the fields in the bright moonlight. The dark hill loomed ahead of them at a height of 640 feet and when Olin sensed that they had reached the base he reined in his horse and that of the thug. Without instruction Holnami halted hers also.

He turned to face her in the light of the three-quarter moon. "Shortly you will give a signal so that your friends will be sure that it is you and not bounty hunters that have somehow learned of this rendezvous. I have never met the good people that will now get you further north and to Canada and it is best that we do not know each other's face or name. In spite of all the best of intentions that people may have at the present, sometimes either anger or alcohol will cause people to reveal that which they should not. That could be dangerous to a person's property or life because there are many about that are strong supporters of slavery. Now, I wish you the best of good fortune and I will hope with all my might to receive a blank piece of paper in a letter from Jane Morgan."

He dismounted and motioned for her to do the same. Olin held out the pistol to her and also passed over the reins of the thug's horse. She jammed the pistol into a side pocket of her long coat. He knelt and searched for two stones about the size of his clenched fists. He handed these to Holnami and then he remounted his horse and caught up the reins of James Lorrent's other livery horse that she had been riding.

He spoke quietly. "When I turn and ride back in the direction we came, you should wait for the count of fifty. Then knock those two rocks together four times, pause and then twice more. The sharp sound will carry well over this open ground. Listen to hear if your friends are approaching. If not, then repeat the four knocks and then two more. Just keep this up until they find you. Tell them to sell the pistol, horse and saddle for money to buy food and clothes for yourself and others that will follow after you. Now, go with God." Olin turned his horse around and it stepped off in the direction they had come.

His abrupt departure caught Holnami by surprise but as he rode away he heard her softly call out, "My daughter and I will thank you all our lives."

Traveling alone he made much better time because he was now willing to risk noise and possible encounters, except that he would avoid the thug. Lorrent's livery was on the west side of town and he would release the horses in the woods about a mile away from it knowing they would smell home and be there before sunrise. He wondered which had the better sense of smell, the horses or Holnami.

The train barn was two miles south of the point where he would release the horses and he would walk to it. Upon his arrival there he would eat the wrapped food that he had cached for his breakfast and re-heat the forge to drive off the cold of the night's travel. And then he would get some sleep.



## Chapter 8

Olin awoke at noon when his slumbering mind sensed the hour from the tolling bell of the town hall. The time had come to perform the favor for Mr. Olsen by determining the height of his ancient pine tree. The walk to Ingmar Olsen's house and furniture shop was without incident in the cold, sunny day and when he arrived he found Mr. Olsen, Samantha and two of her uncles awaiting him.

"Well, there is the damn thing," Mr. Olsen grumpily stated as he pointed at the dark shadow of the tall pine tree upon the ground, "And it reaches quite far over and beyond the hencoop. I have enough string to cover the length of the shadow. But I still don't understand how we can measure the shadow and then know the height of this damn tree. The shadow length has been changing ever since sunrise."

Olin looked at the girl with a smile. "Samantha, please hold an end of the long string at the base of the tree." She was excited and pleased to participate in anything that Olin was concerned with and quickly stooped and pinned the end of the string to the base of the tree. It was Olin's intention to keep her fixed at the junction of the tree and the cold ground as it kept her away from himself.

He turned an spoke to Mr. Olsen. "The shadow moves in length depending upon the position of the sun, just as you said. We need now to mark out the length of the tree's shadow when we hear the town bell ring out one o'clock. We will run out the string, as Samantha holds its end at the base of the tree, until we reach the end of the tree's shadow and then we will wait for the bell."

All of them except Samantha started walking along the long shadow of the tree in the direction of the chicken coop reeling out string as they went. The shadow fell over the five-foot high coop and continued some distance outward behind it. Olin had Evian lift the string up at the front of the coop as he and Mr. Olsen walked along the side of the coop holding their section of string aloft. Upon reaching the rear of the coop they continued holding the string up until they reached the end of the shadow of the tree. Pulling the string taut as Samantha held the other end of it, Olin assured that there was no slack. They waited some minutes until they heard the town bell. Then Olin tied a tight knot in the string directly above the end of the shadow on the ground.

Ingmar questioned him. "Does it matter that the string is not flat upon the ground as we have it stretched in the air above the chicken coop?"

"No. It is about five feet in a hundred feet, and the cosine of the angle it makes with the ground is just about .998 in value. I know that because I checked a book of numerical tables last night. That means the error is less than two hundredths of a percent."

The elderly man stared at him in bewilderment for a moment. "What sign? The only sign is upon the front of my workshop and what does that have to do with this string?"

"The cosine of an angle is a mathematical function but you should not concern yourself with it. We have marked off the length of the shadow of the tree and that is all that we need do out here." Olin turned to Evian and gave him instructions. "Just wind up all the string and we will take it back into the shop where we will learn the height of the

tree." When they were all in the shop Olin instructed him further. "Use your yardstick and measure the string length from the end that Samantha held to the knot that I tied."

Evian did so and declared, "It is just about one hundred sixty nine and one half feet." That meant nothing to any of the Olsens because they knew that the shadow had gone beyond the henhouse that was one hundred and seven feet from the base of the tree.

Olin used pencil and paper and divided the result by 1.4605, the value that he had previously obtained from a book of mathematical tables at the library. He then declared, "The tree height is just about one hundred and sixteen feet."

Mr. Olsen knew from a previous measurement that the distance from the base of the tree to the chicken coop was one hundred and seven feet. He swore mightily. Samantha faked modesty at the words that she had heard from her grandfather hundreds of times before.

"That is nine feet into the chicken coop!" growled the man in exasperation. "For a damn lousy nine feet I have to move my entire chicken coop!" the enraged man spit out.

Olin remembered that it was Benjamin Franklin that had written words to the effect that one of the most senseless acts that a man could commit was to become angry and frustrated by an accident of nature, for what possible advantage could ever be gained in the doing of it. "No, you don't have to move the coop," Olin calmly informed him.

Mr. Olsen stopped in mid curse and stared at Olin.

"You have two strong sons here and a shop full of wood, hammers, saws and axes so surely they can make a platform to stand upon and cut a tree off nine or ten feet up the trunk. The tree will be that much shorter when it falls and will hit the ground without reaching the chicken coop."

Mr. Olsen's mouth was working but he was making only unintelligible sounds because the sheer simplicity of the solution had stunned him from total disgust to total joy. "Yahoo! Yahoo!" he finally yelled. "This is a damn wonderful thing that you have done Olin. Yahoo!"

His sons and Samantha were also yelling and dancing about the shop.

Samantha absolutely was not going to let an excuse to hug Olin slip away. She threw her arms about him and pressed against him with every part and contour of her body that she could bring to bear upon the agreeable task. Olin was sure he was flushing as he gently but firmly extricated himself from her amorous embrace. He moved towards the workbench so that it might screen his biological response to Samantha having clasped herself to him.

"Pull your wagon alongside the tree and already you will be four or five feet upwards," he continued with advice. "Your sons will get you another five by their height, so perhaps it is simpler yet."

Mr. Olsen and his sons once again broke into a chorus of elated yells and Samantha was overjoyed that she now had a new excuse to lunge at Olin and embrace him a second time, on this occasion locking the fingers of her hands tightly behind the small of his back. She had also experienced a biological effect due to the previous embrace and was eager to both renew and sustain it.

Upon observing the closeness of Samantha and Olin, Mr. Olsen was exuberant. "My Lord Son, I can see that the two of you are taken with each other! You just say the word son, and I will gladly give her hand in marriage to you, her father being dead these past four years after falling head first into the well while he was leaning in to mend the stone work and him not being here to give his blessing. I would be proud to have such as you as a grandson in law. So you just say the word, just say the word."

Olin slipped his tongue between his front teeth and bit down with firmness lest the slightest word escape his lips.

At the same moment that the Olsen's were celebrating and Olin was wrestling with Samantha to break her tenacious grasp, the farmer Michaud was leaving his barn after having pitched hay to his animals. As he stepped into the daylight he saw a strange figure stumbling along the dirt road towards his farmhouse. Blinking to adjust his eyes to the bright sunlight of the cold but clear day he discerned that it was a man who was of large stature, had a full black beard, wore a black winter coat and who was slowly approaching in a stumbling, jerky manner. The man seemed clearly to be in a daze and not in full control of his limbs. It was an ominous sight to the farmer when he considered the possibility of a contagious disease.

Farmer Michaud ran to his house, flung open the front door, raced inside and from over the fireplace mantel he grasped his double-barreled bird gun. He carefully opened his front door and stepped back out onto the porch with his gun cocked and raised towards the man.

In the meantime the stranger had fallen to his knees and had stretched out his hands with the palms up in supplication to implore Michaud for assistance. The man could not muster the strength to speak and instead he was making unintelligible gurgling noises. The animalistic utterances, which were accompanied with dribbling spittle, greatly heightened the farmer's apprehension.

Michaud was concerned that perhaps the man had been bitten by a rabid dog, or some such, and was very careful in his approach to the disabled figure. As he neared him he observed that the white of the man's left eye had turned blood red in color and this caused him to take a step backward in revulsion. The top left side of the man's face was vivid with blue, lavender, red and black streaks and blotches. There was no apparent open wound or hoof mark from a horse's kick so Michaud guessed that the marks must be the result of some horrible affliction of disease. The farmer decided to circle about the man to check for any weapons that might be hidden upon him and as he did so he noted that blood was slowly oozing out of the man's left ear. This caused Michaud to once again move away from the man because that sight heightened his fear of a contagious ailment.

He decided to alert his family that they should not approach the man under any circumstances and then he would ride into town and bring back the doctor. It was not a benevolent thought, as he did not particularly care if the man lived or died. It was just that if the man died upon his land then he might somehow be under an obligation to bury him, as no one else was going to volunteer to do it. However, the doctor might take him away, alive or dead, and thus relieve him of a gravedigger's work and the need to touch the body in any manner.

He ran back towards the house and yelled for his wife and son. Mrs. Michaud appeared at the front door of the house and a boy of fifteen came running up to him from the barn where he had been tending to the cleaning of the animal's stalls.

Farmer Michaud handed the bird gun to his son, Jacques. "If he tries to enter the house, then kill him."

Jacques was a willing sentry. As he had never before had the opportunity to shoot a man, he wondered where he should aim if the need arose. He decided that he would shoot the man between the eyes and he cocked back the two hammers of the double-barreled bird gun to put the weapon into readiness.

His father sternly cautioned him. "Don't you shoot him unless you absolutely must. Do you hear me? Don't you be blowing his guts all over my land!"

The dark haired Jacques sulked disappointedly. "Yeah, Pa."

Claude Michaud ran to the barn and quickly saddled his horse. As soon as he led the animal out of the barn he was upon it and raced off across his frozen crop fields towards the town. Within forty-five minutes Doctor Herman and the farmer were racing back across the fields on their horses. As they arrived at the farmhouse they saw that the man had fallen unconscious with the right side of his face in the cold, dusty road. With each labored breath issuing from his nostrils he blew away small clouds of dry earth. Jacques had glumly un-cocked the hammers of the gun when he saw the men approaching.

The doctor dismounted and knelt to inspect the injured left side of the man's face.

"Does he have the rabies?" asked Claude as he sat upon his mount.

"No," replied the doctor.

Rabies is Latin for rage, which is what most victims suffered as the disease progressed, but the doctor observed that this man was completely unresponsive.

"Is it the cholera?" asked the farmer.

"No, Claude." The doctor did not suspect that the man was suffering from a disease. Instead he believed that the man has been struck mightily upon his left temple by some unknown object. Since he was not perfectly sure he said nothing about his suspicions to the farmer and the boy.

"Will he die?" asked Claude. "If he dies I don't want him buried on my land."

"Only time will tell if he will die," replied the doctor. "I want you to hitch up a buckboard so that we can transport the man to my office in town for treatment."

Claude scowled. "I don't want him bleeding in my buckboard."

"We can stack some hay beneath him and if blood gets on it then it can be pitched out later," the doctor suggested. "Now get the wagon ready or he will die on your land."

The farmer sent his son to harness a horse to the buckboard and it was soon brought around and stopped near the injured man.

"Help me lift him up," the doctor requested.

"Bullshit!" farmer Michaud exclaimed. "I ain't gonna get his disease on my hands."

The doctor needed their help so he concocted a plan to obtain it. "It's too late to think about that. You are already contaminated and will die without my medical

assistance.”

The faces of both the farmer and his son turned ashen in color upon hearing the doctor’s words.

“Holy sweet Providence! What the hell do you mean?” the farmer demanded to know.

“Have you been within fifty feet of this man?” the doctor asked.

“Yes!” They were becoming terrified and the father and son answered in unison.

“Then you have breathed in the deadly disease and at this moment it’s spreading throughout your bodies,” the doctor informed them.

At the thought of his own face and eyes taking on the appearance of that of the man, horror and revulsion rose within Jacques and he threw up, splattering it upon his father’s boots.

“Save us! Oh, sweet mother of God! Save us doctor!” pleaded the farmer.

“The only hope for the three of us is to get into town as soon as possible so that I can administer the antidote that I have there,” the doctor stated with finality. “You can’t get any more of the disease than you already have, I mean you can’t get it twice or three times, so help me get this man onto the buckboard and let’s get to town as soon as possible.”

It took them several minutes to finally work up the courage to lift the man into the wagon, and they did it only because the doctor warned them that with each passing moment the disease was worming its insidious, relentless way into the flesh and bones of their bodies and only his medicine in town could save them.

They arrived at the doctor’s office in town in short order as Jacques had lashed the wagon horse into a full gallop during the trip. In the rear of the office there was a small room with a bed to be used for a patient as the need arose due to illness or broken limbs.

“Help me carry him into the backroom,” requested the doctor.

“What about the cure for the disease that you promised us?” demanded the farmer.

“It’s in the room where we are taking the patient,” the doctor assured them. “I will give it to you when we get him in there.”

They managed to get the injured man out of the buckboard, through the office and onto the bed in the rear room.

“The cure, doctor! The cure!” pleaded farmer Michaud.

The doctor grasped a brown glass bottle from a shelf and uncorked it. “This medicine was discovered by Louis Jacques Thenard in 1799. It has always worked before.”

The man and his son displayed expressions of relief.

“Now, I am going to give you each a spoonful of this. You will know that it is working if it doesn’t taste too good and if it causes many bubbles to form in your mouth. That will be the action of the medicine killing the disease.”

The doctor poured out a spoonful of the liquid as the father roughly pushed the son out of the way so that he could be the first to be saved.

He gulped in the liquid and the tonic bubbled vigorously in his mouth. “Praise be

to God! Its working!" he mouthed through the froth of white foam that formed on his lips..

Jacques rushed forward to obtain his dose and experienced the same miraculous curing effect. The doctor re-corked the bottle of hydrogen peroxide and replaced it upon the shelf. He would not have perpetrated a hoax simply for a laugh. In his mind it really wasn't a mean trick, as he had needed their help in order that he might save a man's life. The doctor sent Jacques to fetch Sheriff Joel Tramell. The father left the office in order to get away from the sick man as dread was still in his mind, the cure not withstanding.

Jacques ran to the sheriff's house and thumped upon the front door as he called out to the lawman. The lanky middle-aged Sheriff Tramell opened the door and Jacques breathlessly explained why his presence was desired at the doctor's office.

The sheriff being a devoted public servant showed no evidence of the fact that he was somewhat distressed that his Sunday meal was becoming ever colder with each passing moment. He sent Jacques back with the message that he would be at the doctor's office some minutes later. He went inside his house and quickly consumed a slice of roast pork and a biscuit before strapping on his pistol belt and departing for Doctor Herman's office.

When he arrived he entered the patient's bedroom and peered intently upon the unconscious man's face. As he did so his own face became creased with lines of concentration. "Was there anything upon the man to identify him?"

"We have not searched him at all," the doctor answered.

Hearing this the sheriff leaned over the man and fished through the pockets of his coat and then his trousers. There were thirty-eight cents in coin and a small folding knife in the pockets. There was a gun holster but it was empty. A large hunting knife in a leather scabbard was upon the man's belt. The sheriff took the hunting knife and the leather belt also.

"Do you think that he will awaken within the hour?" he asked the doctor.

"No, perhaps not until morning, if even then."

"Good," said the sheriff. "I am going to return home to eat my meal and then I will go to my office to check upon something. I expect that I will return here after that." The sheriff turned and left the room taking the man's possessions with him.

Later, as Sheriff Tramell sat eating the remainder of his re-heated meal of brown roasted pork with potatoes and carrots, he mulled matters over in his mind. If the stranger who was in the doctor's bed had been struck by someone who planned to rob him, they probably would have taken the knife, his belt, his boots, his coat and the coin in his pocket. He concluded it had not been a robbery.

What then? An act of revenge? Possibly. But for what original cause? And if the attack was for revenge then why had the man not been killed after having been disabled?

His logical mind drove to the conclusion that someone, without murderous intent, had struck the man in self-defense and then run off. Nothing else made any sense. But why then did that person or persons not come to him with a report of self-defense and ask for protection against the man? As he savored his dessert of hot deep-dish apple pie that his wife had so deliciously prepared from winter dried apple slices, he pondered

something else. Why did the man appear familiar to him when he was certain that he had never seen him in his life?

After finishing his meal he walked over to his office on the main street of the town, unlocked the door and entered. Darkness having fallen he lit an oil lamp and slumped down into the chair behind his small desk. Opening the top right hand drawer he grasped a pile of wanted posters, placed them on the desktop in front of him and started to look through them. The ninth one down in the pile focused his attention. It was a reward poster for a Jarad Hortmuller, originally of Vermont State. The crimes listed were armed robbery, theft of farm animals, horse theft, breaking and entering, accosting a young lady and escape from the Concord, New Hampshire jail. Tramell had been fairly confident that because the man seemed familiar that he most likely had seen his likeness in a sketched picture on a wanted poster. He placed the wanted posters back into the upper right hand draw and closed it. Opening the next drawer down he took out a prisoner's leg chain that had keyed manacles at both ends.

At this moment the door opened and Agatha Neucrant strode into his office. She was a big boned woman and the wife of a big boned man. The sheriff knew her quite well as a respected and levelheaded citizen of the town.

She made a demand in an authoritative voice. "You must arrest Charlie Crowley."

The sheriff knew the mentioned man to be the town reprobate and practical joker. He therefore assumed that Charlie had said or done something to annoy Agatha. "Why?" he asked politely.

She drew herself up to her full height with a stern expression upon her face. He guessed that she was searching for words to express her exasperation at whatever it was that Charlie had done. "He waved at me," she finally informed him.

The sheriff could not discern any serious affront caused by one person waving at another. "Agatha, we all wave at you." By her agitated gestures he suspected that she was striving to retain her modesty and suspected that Charlie had gone a bit further than usual.

Finally she revealed what the man had done. "When he waved at me with that evil grin of his, he had his hands clasped behind his back."

The sheriff maintained a blank expression as he slowly lowered his head to once again inspect the wanted poster for Jarad Hortmuller. His body shook slightly with a suppressed laugh.

Agatha Neucrant scolded him. "It is not funny Sheriff. It is indecent. Now, I can tell you that it was a miniature example of what I have seen in my married life but if allowed to remain upon the streets of our town he might cause great detriment to the chaste thoughts of our younger ladies."

The sheriff regained his composure and looked up. "Mrs. Neucrant, I assure you that I will apprehend Charlie Crowley and inform him that he is to be hung..."

She blanched. "Oh Sheriff, I did not mean it to come to that."

"By the object of his offense," he finished.

She laughed. "In that instance give me due notice and I will make up a picnic lunch basket for the affair."

"Yes, Agatha. In the meantime rest assured that I will inform Charlie of his

impending punishment, which might cause him to desist." After a moment of thought he offered the woman a second option. "Actually Agatha, you can inflict even a greater punishment than that upon him."

"Greater than that! My mind cannot discover what punishment that might be," she said in wonderment. The sheriff revealed the possibility to her, and after a couple of minutes of discussion she left the office with a pleased expression in happy anticipation of wreaking justice upon Charlie Crowley

Tramell closed the desk drawer, put out the oil lamp, stepped out of the jail, and locked the door. He walked down to the doctor's office, entered it without knocking, went directly back to the rear bedroom and found Jarad Hortmuller lying still unconscious upon the bed. He pushed the blanket aside at the foot of the bed to expose Hortmuller's left ankle and around it he closed and locked one of the manacles of the leg chain. He closed and locked the other manacle about the cast iron foot section of the bed. He did not bother to replace the blanket over the man's foot.

The doctor appeared in the doorway having just come back from the privy behind the building. Seeing the leg chain and manacles he deduced that his patient was a wanted man.

"Did he ever regain consciousness?" Sheriff Tramell asked.

"Yes, and he asked a strange question," Doctor Herman replied. "He asked how to get to the Parks' place. He said that he had to find someone at the Parks' place."

The sheriff thought for a moment. "I have never heard of a Parks in this county."

The doctor agreed. "Neither have I. Perhaps he is delirious from his head injury."

"Do not ever trust this man," the sheriff advised the doctor. "Do not let a sharp scalpel or any other possible weapon get within his reach. Do not let any other people be around him. Do not answer any question that he asks because he will never be asking an innocent question, it will always be for evil intent, as he is a known scoundrel."

The doctor fully understood the instructions. They walked back into the doctor's front office and the sheriff gave him some information. "You might count yourself fifty dollars richer. There is a one hundred-dollar reward for this bandit to be paid out of Concord. I might guess that you would split that with Michaud. Also, the county will pay you for the care and feeding of the prisoner. But, be very careful that you do not let anyone that brings food to get within the grasp of the man. As soon as you say that he can be moved I will place him into my jail cell."

The doctor nodded that he understood everything and he was especially happy about the fifty dollars and the funds that would be due from the county. Most of his patients paid by barter and he was forever short of actual cash money. He had a very large number of hens in a coop in his backyard.

As Olin sat in the storeroom of the library that same evening he read about the measurement of terrain and he was perplexed to learn that an acre of land was not a simple quantity to understand. It seemed that in ages gone by the original definition of an acre was the area of land a yoke of oxen could plow in a day. That was meaningless to him and he could not imagine which ruler in ancient times had declared such a variable as a measurement of terrain.



He further read that an acre was 4,840 square yards. He calculated the square root of that number and determined that an acre of land in a square shape would be 69.57 yards on all sides. He pondered that for a moment as he sometimes enjoyed mulling over ignorant things. The land measure was specified in square yards, but it was not a piece of property that could be set out in a square shape with an integral number of yard lengths on a side. He became convinced that the British must have had something to do with such balderdash.

And he was right. He read that in 1579 the British mathematician Edmund Gunter had invented a land surveying chain that was 22 yards long. He then proceeded to declare that an acre was ten of his chains long and one chain wide.

When Olin used those numbers he arrived at the previous number of 4,840 square yards for an acre of land. But, he wondered why in the world Gunter had selected 22 yards as his unit of length. Then he remembered that the distance of the pitch in the British game of cricket is 22 yards. It would all make perfect sense to an Englishman.

He blew out the candle, slipped under the blankets, and as he attempted to imagine the expanse of the 6,400 acres, or 10 square miles, of land he wished to purchase from the town, he soon drifted off to sleep.

## Chapter 9

The town Olin lived in had a single school, which was a private institution requiring that tuition be paid for those attending the grades first through the twelfth. There was no public school system available so very many children went uneducated because their parents would not or could not pay the amount of the tuition.

The schoolmaster was the respected Mr. Patrick O'Connell. On the afternoon of February 24, 1854 the school secretary announced to the principal that Mr. Elliott Segall was waiting in the outer office to talk to him. Patrick O'Connell did not remember having agreed to an appointment but never the less he told her to show the man in to him.

Elliott Segall was perhaps fifty-five years of age, rotund, balding, short, and prematurely wrinkled. His attire was of good cloth and well tailored yet he somehow managed to appear unkempt. He was employed as an accountant at the White Mountain Lumber Company and he believed himself to be a man deserving of respect. In his own estimation he was exceptionally quick on many matters including religion, politics and philosophy. In general he was alone in that opinion.

Mr. O'Connell greeted him warmly enough as he would any citizen and potential client and offered him a chair.

The man sat down and spoke immediately. "Sir I believe that a law has recently been enacted by the Devil's workers in the state capital building that would make education to the twelfth level mandatory for all children."

"Yes that is true, effective this September," Mr. O'Connell responded. He was somewhat perplexed by the man's opinion of the state legislature.

Elliott Segall scowled. "Do I understand further that this law mandates that girls be educated as well as boys? Could such an ignorant and dangerous thing actually be so?"

O'Connell was further taken aback by the man's question, or at least his intense manner of asking it. "Yes, the law states that girls are to be educated," he responded.

Elliott Segall rose to his feet with anger showing upon his face. "We must join together to prevent this abomination, this travesty of law, this disregard of the rights of all white men in their destiny to rule their households. It is sufficient that the master of the house be educated. Can you just imagine if women could read? What frivolous things might they read and believe in their small minds, and yea, perhaps dangerous things, ruinous to happy households."

O'Connell could scarcely believe that the man was saying such things.

Segall ranted on. "I read and explain the bible to my family each night after supper. Can you just envision the catastrophe to religion if women read the bible and then tried in their pitiful ignorance to explain the word of the Lord to others, including small children? The bible was written by men to be read by men. Recipes were written by women to be read by women and therefore they have no need of learning more words than those of the vegetables, fruits, condiments and the like."

O'Connell strove to maintain a blank expression and his silence, but strong emotions were rising within him.

In a state of some agitation Segall continued the tirade. "My God Almighty, do

you not see what havoc that harlot Harriet Beecher Stowe, has brought about with her ability to write? It has been only two years now since her evil pen inked that wretched abomination she titled "Uncle Tom's Cabin" and now many are calling for an end to slavery. Look at the interference she is bringing to the right given to us by God to rule the sub classes."

O'Connell started to speak in defense of the author as he knew her, but at the moment Segall would not hear any words except his own.

"May Heaven help us," implored Segall, "but it was only last year that the black woman, Sarah Parker Remond by name, refused in Boston to sit in the Negro section of the theater but instead attempted to sit among pure white people, to their great horror and disrespect. And those fools in the Boston courts, those devil worshipers, those heathens! They awarded her money in damages when she sued the theater owner! They should have whipped her in public in front of the theater as an object lesson to all other Negroes. Again, a great disruption to our blessed way of life caused by a woman! Why, in the name of all that is sacred, do they not have "whites only" theaters anyway?"

O'Connell felt a sense of disgust at the man's heated and hate filled words but decided to continue to hold his tongue.

Segall mistook the man's restraint to be a form of approval. "Surely, as a respected educator you can distinctly perceive how the education of women could actually, think about it man, actually bring about the destruction of our country! They will be the enemy from within if we allow it! As a school principal it is your duty as ordained by God to prevent this plague, and I Sir, will offer up all assistance that the good Lord gives me the strength to provide." He stopped spouting to regain his breath and stood looking at O'Connell as he awaited his response.

O'Connell sat expressionless while contemplating the man. He was attempting to fathom Segall's psychology. "Please Sir, be seated." He gently and politely invited him back to the chair. Segall continued to appear agitated as he sat down again.

"In accordance with the law I have no choice but to accept girls into the school," O'Connell informed him.

Segall once again rose from his chair, flushing red with the intensity of his feelings. "A curse upon their law! If we all resist together then they will have no choice but to come to their senses. We are talking here about the salvation of our country and of our blessed religious beliefs."

O'Connell reflected upon the thought that a fool will bring himself to his own end if he is merely allowed to do as he pleases. And he believed Segall to be a fool. Or worse. He motioned calmly with his hand that Segall should sit down again and when he had O'Connell offered a suggestion. "I am aquatinted with the editor of our local newspaper, Mr. John Trinkem. I can not make you a guarantee but I believe that I could manage things so that you might be able to publish you views to a wider audience."

Elliott Segall became electrified by the thought of having his words published. All the better to spread his message that he believed the multitudes were thirsting after. "I have composed some writings in the past as time allowed, with the expectation that at a future date they might be set to type and ink. I am well prepared if you can persuade the good editor to publish these, as the time is now both right and demanding for the

publication of the truth of the matter."

Patrick O'Connell continued to encourage him. "Perhaps, let us theorize under the banner "The beliefs of a White Master of his household, by Elliott Segall". I believe that there are very many people that very much want to clearly understand how you, and those like you, feel and think on these very important issues."

Segall rose from his seat, flushed with gratitude to the point where he could barely express his appreciation to the principal. He shook his hand vigorously and continued to thank him profusely as his mind reeled with the image of his impending literary emergence.

"I shall discuss the matter of your writings with John Trinkem," Mr. O'Connell informed him, "and if he agrees that you might offer written weekly guidance to those that wish to receive it, I will send a messenger to your household with Mr. Trinkem's response."

Elliott Segall bowed in gratitude and continued to thank the principal as he backed out the office doorway.

A short time later O'Connell left his school and walked to the newspaper office of John Trinkem. He related the comments and beliefs of Elliott Segall to Trinkem who inquired why O'Connell had not taken the opportunity to refute them. O'Connell's answer was concise. "It is impossible to win an argument with an ignorant person. A wise man changes his mind with facts, a fool never. We remember that sometimes the anarchist bomber blows himself up while making the bomb. Segall's words may destroy his own arguments."

They talked for about a half-hour and reached an agreement to publish the words of Elliott Segall, both being confident that there would be no shortage of them. They believed that it was their clear civic duty to allow the public to read the words of an oppressive, chauvinistic, pro slavery advocate.

Trinkem then handed O'Connell a printed sheet of paper. "It is a coincidence that I have recently received a copy of the Woman's Rights Petition to the New York Legislature of 1854. It would be a good plan if I publish it and Mr. Segall comments in the same edition."

O'Connell read in part, "Resolved, That men...class their mothers, sisters, wives, and daughters among aliens, criminals, idiots, and minors, unfit to be their coequal citizen, are guilty of absurd inconsistency and presumption; that for males to govern females, without consent being asked or granted, is to perpetuate an aristocracy, utterly hostile to the principles and spirit of free institutions; and that it is time for the people of the United States and every State in the Union to put away forever that remnant of despotism and feudal oligarchy, the caste of sex."

"Well, the ladies have joined the battle so why not then Mr. Segall?" O'Connell remarked. "I could wish that whoever composed the "Petition" had a more fluid style of writing but I guess that all the points are made. I imagine John, that all of this might increase your readership." He rose to shake the editor's hand and then he left the newspaper office.

As he walked towards his home and his waiting supper he contemplated the flawed nature of men that causes them to attempt to subjugate not only servants and

strangers, but also their presumed loved ones such as wives and children. His wife Penny met him at the door of their house and they embraced affectionately. He then held her back at arm length and said with a smile, "I would still love you even if you did not possess a master's degree in sociology."

She looked back at him quizzically.

"And might I ask," he queried her, "have you heard in recent times from your third cousin, Harriet?"

## Chapter 10

The nighttime temperatures in February 1854 had been in general below the freezing point. Olin had been thinking about what demonstration he would make for the townsmen the next evening, Saturday the 25th, and as he observed that water was freezing in the tops of rain barrels he developed an idea. The train barn had a large oaken rain barrel that was fed by a wooden downspout from gutters at the roof eave of the building. This provided ready water for quenching of hot iron and steel at the forge when the need arose, and also for his baths. He now imagined that it could suit an additional purpose.

Olin made arrangements to rent for one day a section of cast iron pipe twenty feet in length with an inner diameter of one inch. He used an auger to bore a hole down through the ice cake that was jammed at the top of the open water barrel and this hole was slightly larger than the pipe. By climbing a nearby ladder and with Paddy's assistance he had been able to hold the pipe in a vertical position and slide it down through the hole in the ice until its end was about two feet into the barrel and not touching the bottom. He then tied the pipe firmly to the ladder with rope and descended.

He remained at the barn that night and periodically checked the rain barrel to assure that the ice was refreezing around the pipe resulting in a watertight seal. When it had solidly frozen he covered the ice cake at the top of the barrel with cold forge ash to prevent the direct sunlight of the following day from melting the ice. He then ascended the ladder to reach the top of the pipe, removed a folded paper packet of two ounces of table salt from his pocket and carefully poured about three teaspoons of the white crystal powder into the opening of the cast iron tube. He refolded the packet and climbed back down to the ground.

The next morning dawned overcast with clouds and the temperatures remained below freezing giving Olin no cause for concern about the integrity of the ice around the pipe at the top of the barrel. He once again climbed up the ladder to deposit salt into the pipe and he would repeat that action four more times over the course of the day.

There were three passenger cars in the barn awaiting an assortment of repairs and maintenance. Olin had gained abundant experience in wood working over the past five years because all of the bench seats, car roofs and major portions of the car sides were fabricated with wood and these constantly needed rework or replacement. Some of the items of wood required shaping and bending in order to fit into place correctly. He had learned how to first make the wood pliable by heating it in boiling water which then allowed him to bend it without the wood splitting, cracking or breaking. When dried the wooden pieces retained their new contours.

To provide an immersion bath for the wood planks a metal smith had made an eight-foot long tin cylinder with a diameter of one foot. After this wood bath had been heated on the forge, sections of wood were slid into the tube and left for some time so that the boiling water and steam could penetrate the grain of the planks to soften them. When taken out of the bath heavy metal items such as train wheels and track sections were employed to create forms by which to force the moisture saturated, and now flexible, wood pieces into the desired shape. They were then left to set fast during

drying. Olin was intent upon learning the use of woodworkers tools such as two handed draw knives, shavers, forming chisels, Buhl saws, witchets and wood planes, so he took every opportunity to practice their use upon these timber components.

As he worked that Saturday he heard a mounted rider enter the train barn and looking towards the door he observed that it was Stephan Horan, a stone mason and constructor of building foundations. Mr. Horan was perhaps forty-five years of age, red headed, blue eyed and stocky.

He dismounted and greeted Olin whom he had previously met on several occasions in Henry Macnock's store. He opened the conversation. "I work with mortar and cement and mostly that is for foundation construction. But on special orders I mold garden decorations for my patrons. Birdbaths and the like, there being lovers of animals among the good women of the town. One of these fine ladies, she being Mrs. Penelope Hastings the mayor's wife, has asked that I mold for her a sundial upon a concrete pedestal. She wishes to place it in her flower garden this spring. I regret that I did not have the presence of mind to inform myself that I do not know how to make the design for that kind of a thing and I promptly promised her such a device."

"It was "time" to say, no," Olin said by way of a small joke.

Horan grimaced slightly. "Now, I can read some but I have not been able to discover a useful book on this matter in you aunt's library. May the Lord bless your good aunt Henphra for the nice person that she is, but she also could not find a text upon the subject. Her first recommendation was that I speak to you about this type of thing as you have stuck your nose in every book in that building by the way that she tells it. Also, I know that a sundial makes use of a shadow and I hear much talk about the town that you are very knowledgeable about shadows and used them to measure the height of Olsen's tree. Do you know how to make a sundial?"

"Yes," Olin replied. "Some years ago I constructed a crude one from dried mud as a matter of curiosity. Sundials must be aligned with the direction of true north. To find the direction of true north I sighted at night upon Polaris."

Horan's brow furrowed questioningly. "What is Polaris and why did you not just use a magnetic compass to locate the direction of north?"

"A magnetic compass does not point to true north, which is the direction that the spin axis through the earth points. A compass aims to magnetic north, which is some distance away from true geographic north, and actually it is near Hudson Bay. Polaris is a star and is also called the North Star because quite accidentally it lies far out in space on the line of the axis of the earth's rotation."

Horan was not following Olin's talk completely but he never the less allowed him to continue. Olin digressed with a history lesson. "The fact that true north and magnetic north lie some distance apart has caused people trouble for centuries. While in command of the good ship Santa Maria, Christopher Columbus in 1492 experienced a near mutiny when it became obvious to the sailors that the magnetic compass headings were slipping out of agreement with the position of the stars as the ships sailed westward.

The seamen were a superstitious lot and began to demand that they return to port before evil demons of the deep led them to disaster, perhaps even to the edge of

the earth and over it into the black abysmal depths of nothingness. Even Columbus was frightened because the cause of the difference was not known to anyone at that time. So he decided to hide the compass and navigate only by the stars, which was in fact a good decision."

Horan was eager to return to the subject at hand. "That is all very well and he found America never the less, but can we talk more of sundials?"

"For the best results, the gnomon should have an angle that is parallel to the axis of rotation of the earth. That can be achieved by sighting along it to Polaris at night and fixing it at that angle."

"What do you mean when you say "no man"," Mr. Horan asked. "I don't understand."

"A gnomon is anything used to cast a shadow," Olin informed him. "The Egyptians used obelisks that are flat-sided stone columns. However these are upright and thus are not parallel to the axis of rotation of the earth and therefore they are not very accurate as sundials. When you form a sundial in concrete you would best slant the pointer, the gnomon, at the proper angle. You can achieve that result by sighting on Polaris at night as I said earlier."

Stephan Horan waved his hand brusquely to indicate that Olin should cease explaining the design of a sundial. "Olin, I believe that I will have more than one customer for these sundials and if the truth be told I will earn some income from the making of them. I will pay you ten dollars if you write down on a leaf of paper with words and drawings, the manner in which I should construct them."

If he had waited a moment longer Olin would have revealed that the lazy man's way to set the gnomon would be to elevate it to forty two and one half degrees above the horizontal because any geography book would reveal that was the latitude of their town. Olin thought a moment further and then decided that such a simple answer would not satisfy the project because hour marks also had to be calculated and the sundials had also to be properly emplaced. He replied with politeness. "It is rather a lot of work for me for only ten dollars. If I did all that work and placed upon paper instructions and drawings that any stone mason in towns here about could use, I might imagine several of them willing to pay ten dollars each."

Horan scowled slightly and then offered, "Twenty dollars, and you sell the plans only to me."

Olin smiled politely. "Forty dollars or I will sell to everyone that asks."

Horan seemed to concede and held out his hand to shake on the agreement. "Thirty dollars, and the plans had best be accurate and easy to follow."

Olin shook his hand. "Thirty dollars then, but the plans will require some amount of concentration to understand and some skill to carry out. For five dollars more I will assist you with the first model."

Horan was still gripping Olin's hand and being possessed of muscular arms he was able to squeeze it hard enough that Olin's face began to screw up in pain. "Listen to me Olin, one more request from you for money and you will be a thief. To keep you honest I will agree to thirty-five dollars and not a penny more." With that said he released his strong grip and mounted his horse. As he was about to turn the horse



towards the door he had an afterthought. "Well, I guess congratulations are in order," he said as he smiled down at the lad.

Perplexed, Olin simply looked up at him as he pondered what he meant by his remark. As he shook the pain out of his hand he thought that perhaps Horan meant that Olin had bargained well in the matter of sundials.

"Upon your betrothal to Samantha Olsen," the mounted man added. "It is being talked all about the town by the Olsen's. And by the way, it was quite interesting to hear how you measured the height of Olsen's tree."

"What the hell are you talking about?" Olin burst out in a shocked voice. "I am not betrothed to Samantha!"

"Well, everyone in Macnock's store was talking about it and Samantha was being very sure that Judy was well informed of all the details."

Olin's eyes bulged in their sockets at the horrifying thought. He tore off his leather apron, cast it away, slapped Horan's horse's rear flank hard to move it out of the way and ran from the barn yelling, "Judy, Judy, no, no, no!"

As the startled horse reared up onto its hind legs, Horan lost his perch in the saddle and slipped over the rump of his agitated mount, falling to the stone floor.

Olin raced at breakneck speed over the icy streets, slipping, falling and tumbling twice. Arriving at Macnock's store he bounded over the three front steps to the wood walkway, grasped the doorknob and threw open the door. Judy was standing four rungs up on the shelf-stocking ladder engrossed in stacking small bags of dried rice. At the noise of his entry she turned and peered down upon Olin and from his facial expression she knew he was pleading for understanding.

"You will be pleased to know," she said in a matter of fact tone of voice, "that Samantha Olsen has done me the great honor of requesting me to be her maid of honor at her wedding to Olin Terrel Collins, which as I understand it, will happen as soon as possible or even sooner than that. Congratulations young prince, she is a fair catch."

Olin stared open mouthed up at her for several moments. Finally he asked, "Does the store have a five-gallon clay crock full of sour pickles?"

With confusion registering upon her face at this unexpected and totally unrelated question she hesitantly responded. "Yes, at the rear of the store, over there," as she nodded her head in its direction and gave him a questioning look.

He took on a look of apparent relief. "Good. No, I mean excellent. I have need of such at this moment. I wish to purchase the entire vat. I have recently read that if a man eats five gallons of sour pickles all at one sitting that it will surely kill him, which is my current desire."

It took a moment for the absurdity of what he had said to register but then she burst into laughter. She descended the ladder, walked over to him, put her arms about his neck and kissed him warmly and moistly. Very moistly. She was aware of his biological response but was discrete and did not remark upon it. After some moments she pulled her head back. "Which of us kisses the best, young prince, she or me?"

He considered the trap of the question for a time with a look of concentration upon his face and then finally responded. "Truthfully, I am not quite sure and it would seem that I require another good sample in order to arrive at a conclusion."

As he left the store he had to hobble along the walkway because of the pain resulting from the force she had applied in stomping upon his left foot. When he had yelled out in agony Mr. Macnock had come running from the storeroom at the rear. Making the best of it, Olin had kept Judy between him and Macnock's view, and asked to borrow a winter jacket as he had run in his shirtsleeves from the train barn. Also he had asked to borrow Mr. Macnock's wagon horse so that he could ride to the Olsen house. He walked down along the side of the store to the one horse stable in the rear yard, threw a blanket over the horse, fitted the bridle to its mouth and then swung up with the reins in his hand. He rode the horse out to the street and turned to ride to the outskirts of town where the Olsen residence and furniture shop was located.

Samantha Olsen must have seen his approach from a window because she opened the front door and stood upon the porch in a shawl as he dismounted and tied the reins to the railing. She urged him to step inside out of the cold and soon they were standing in the warm parlor. "Why, Olin, what brings you to see me today?" she asked with a flirtatious smile.

"Well Samantha, I have been thinking about our futures...."

Her eyes lit up at the words and she edged closer to him while reaching for his hand.

"And I must say I am proud of your patience," he continued, "as you are well aware, I am sure, I have promised myself that I would marry only after I have become established in the world."

At these words she pulled back slightly, her brow wrinkled and her eyelids narrowed. "Whatever do you mean?" she asked with a sense of annoyance at the possibilities.

"Well, I have always told anyone that would listen that a man should not marry until he had the funds to properly care for a wife and family. Too many young men give in to certain urges that they have and marry quite early in years as a result."

In her mind was the memory of their close and long embrace in the workshop.

"Then they can not properly feed and clothe their wives and children," he continued. "Many marriages are ruined in that manner and I have sworn not to fall into such a disaster." He paused for her reaction.

"How long a delay might you guess?" she asked apprehensively.

"Well it of course depends upon circumstances that can not yet be seen. If my plans and hopes become reality, well... why then I would imagine as short as four or five years, I being fifteen already."

She dropped his hand and stepped back with an expression of shock upon her face. "What do you mean?" she nearly screamed out. "What do you mean only four or five years? I will be an old woman by then! I can't wait four or five years!"

He raised his hands slightly, palms toward her in a gesture that implied that she should remain calm. However she continued heatedly. "I will have you know that Jacques Michaud has been calling upon me and I do not for a moment think that he wants to wait four or five years."

Olin nodded his head in understanding. "But there you see it, do you not? He will have his father's farm some day so he need not fret about his future. I will have no

inheritance and thus must make my own fortune and I am not sure how well I will manage that. I very much envy Jacques. He can proceed now to ask your grandfather for the hand of his beautiful granddaughter in marriage, as he need not wait, as I must. He clearly has the advantage over me." Olin affected an expression of some sadness and disappointment.

She stood well away from him and crossed her arms determinedly. "You must make up your mind. We must marry soon or I shall have no other choice but to accept Jacques, and your loss will be your own doing!"

Olin let his head hang before answering. If Jacques Michaud were courting Samantha of his own free will then there would not be a breach of ethics by his ploy. He answered glumly. "It seems I must suffer the loss of you to Jacques, though I do not feel that you are being entirely fair about this."

"Leave the house," she instructed him as she pointed towards the door.

"If this is your final decision then I will abide by your wishes." He opened the door and stepped onto the porch. He turned back towards her. "Are you sure?"

"Yes. Jacques will win my hand," she declared and shut the door.

He untied the horse, mounted and rode to the train barn to get his winter jacket. He then rode to Macnock's store to return the borrowed coat and the horse. As he began walking back to the train barn he heard the six o'clock bell from the town hall cupola. He believed that Mr. Martinmon would not be aware of his absence as the other laborers never revealed anything to the man that was not asked by a direct question. Never the less Olin knew that he would tell Martinmon of his time away from work and be docked pay as a matter of honesty.

## Chapter 11

It was not long after Olin's return to the barn that Martinmon arrived in a wagon with the townsmen who quickly jumped down and moved as a group to the warm forge. It was dark outside as the sun had set at 5:31 PM on February 25, 1854, and because the demonstration would be just outside the train barn door Olin had lit two oil lamps in preparation. He handed one to the lawyer Will Hiram. He asked the men to follow him to the rain barrel and after they had all gathered about it he wiped the ash off the ice cake that was frozen into the top of the water filled oak cask.

Olin explained the situation. "I have set a twenty foot pipe upright and slid two feet or so of its length through a hole in the ice cake that I made by means of an auger. The pipe is empty and has an inner diameter of one inch across."

The men understood the simplicity of the arrangement up to that point.

Olin posed a question. "How might you imagine that I can cause this cake of ice to crack, or to rise up further in the barrel without my touching the ice, using the pipe to pry or push, heating the pipe, or touching the barrel in the process?"

"By magic," facetiously offered Aldo Scalodi, perhaps encouraged by the supper wine in his belly.

"It will be by science for certain, based upon all of Olin's previous demonstrations," stated the English teacher Mr. Sprichen.

"His science is by my account, magic," the bank president stated shaking his head in bewilderment.

Mr. Martinmon was impatient. "Make the ice crack or rise but do it soon or we all will be frozen standing about in the dark cold night.

Olin stepped just inside the train barn door and picked up a gallon pail of water and a small tin funnel. He came back outside and told them, "This amount of water weighs just under eight and a half pounds. Now, that small weight of water is going to crack that thick cake of ice that is at the top of the rain barrel."

"Do you mean that you are going to smash the pail down hard upon the ice, sort of like a hammer?" Mr. Scalodi asked.

"No," responded Olin, "the pail will never touch the ice and I am simply going to pour the water gently out of the pail."

"Would the ice crack if you simply pour the water onto it?" Doctor Herman asked.

"No," answered Olin.

Scalodi stuck an investigative finger into the pail of water. "It is fairly cold. Near freezing I think, so it is not hot water to melt the ice."

Olin began climbing the ladder using one hand to grasp the rungs and the other to hold the pail by its wire handle, the edge of the funnel clenched between his teeth. When he reached a height that placed him even with the top of the pipe he stopped climbing, and leaning forward upon the ladder for support he reached out with his free hand and set the spout of the funnel down into the opening of the iron pipe. He carefully lifted the pail of water and very slowly began to pour the liquid from it into the mouth of the funnel.

As he did so he spoke to the men standing below. "An eighteen foot length of

one inch diameter pipe will hold just about three quarters of a gallon of water and that amount of the liquid weighs a little over six pounds."

That did not seem like very much weight to the group of men so they expected that there would be no effect from Olin's action of pouring it into the vertical pipe.

Olin continued to speak as he slowly poured the water. "The opening of this pipe is just about one square inch in area. Therefore, eighteen feet further down the pipe at the level of the ice cake there will then be a pressure of about six pounds per square inch."

"That does not sound like a large pressure in any event," Martinmon observed.

Olin continued pouring the water. "That pressure will be felt throughout the water in the entire barrel. Because the ice cake is rigidly lodged at the top of the barrel, there is no way for the pressure to be released."

"So then we will have about six pounds of water standing in the pipe," Dr. Herman said up to Olin. "How will that crack the ice?"

Olin answered down to him. "A Frenchman named Blaise Pascal explained how it would be done two hundred years ago so this is not something that has been recently discovered. From the barrel mouth dimension of eighteen inches across, which I have previously measured, I know that the ice cake has a surface area of 254 square inches.

The full upward force upon the ice resulting from the water that I am pouring into the pipe will be that number multiplied by the pressure per square inch due to the weight of the water. Thus the total poundal force that will be applied to the underside of the ice cake is 6 times 254, which is about one thousand five hundred pounds.

"What?" asked the surprised men almost in unison.

Scalodi said to no one in particular, "I told you that it would be magic."

Even before he finished pouring in the full gallon of water they all heard the ice crack and saw it split roughly in half. The halves tilted upward about a half inch along the crack line and as water escaped between the two pieces the pressure was relieved and their motion halted. The townsmen marveled at the fact that less than a gallon of water had cracked the thick ice with a tremendous force from below.

Olin climbed down the ladder and stood smiling in the light of the oil lamps. He motioned that they should go inside for the warmth and he closed the train barn door after all had entered. As they gathered around the hot coals of the forge he explained to them what had occurred. Some could understand the mathematics of it and others could not.

He pointed over to the large hydraulic press with which he had sheared a train axle for Benjamin Butler. "What I achieved with water in a pipe is actually no different than what is achieved by working the lever to drive the small piston of that hydraulic press. At the press it is the force of my arm that is multiplied and in the pipe it is the weight of the water. Force is force regardless of how it is made to happen. So, for about six pounds of water that I poured into the pipe there was obtained a force of three quarters of a ton upward under the ice cake."

The men crowded around the hot forge fire for warmth as they continued to express astonishment at the amount of force that was caused by a small amount of water.

Olin started walking towards the door. "Now as a matter of fact as you stay to warm yourselves I must go outside and retrieve the pipe that I have rented before yet another force harms it. If it remains with any water in it that could freeze, it will cause the pipe to burst.

"Why is it that the water from the barrel that was inside the pipe had not already frozen solid in this cold weather and burst it open?" asked Mayor Hastings.

"I poured table salt down the pipe and it was the salt that prevented the barrel water in the pipe from freezing. I had to do it on several occasions because the salt sinks to the bottom of the barrel with time."

As Olin started again towards the train barn door the men stood about the warm forge fire. Mr. Perkins spoke to Dr. Herman. "So, I hear that there is a wanted man in your day bed. An armed robber and an abuser of women, I am told."

Olin slowed his pace in order to further overhear the conversation.

"Actually, he has now been moved to the security of Sheriff Trammel's jail cell," the doctor replied. "Claude Michaud discovered the man near his house. The injury to the side of the man's head has caused him to be blind in his left eye but he is otherwise recovering. I think the trauma has caused him to imagine that a Mr. Parks lives somewhere near as he keeps asking after such a man."

A cold shiver ran down Olin's spine.

The doctor continued. "The sheriff has determined that his name is Jarad Hortmuller and he is an escapee from the Concord jail. There is a reward of one hundred dollars and Claude Michaud and me will share that when it arrives from Concord the sheriff says."

Olin retrieved the pipe from the water barrel and brought it into the train barn, laying it flat on the stone floor near the wall. "Well, at least Holnami is not a killer," he thought to himself. Walking back to the forge he addressed the group. "Good gentlemen, it may be some months before I am able to once again perform a demonstration of science for you."

There were expressions of disappointment by the men at this declaration.

"I have some studies that I must complete and these will engage my full interest for some months or more," he explained. This aroused their curiosity and there were inquiries for details of these studies. He declined politely to expound upon the matter and bid them all good evening as he left the barn.

Eleven days later at mid afternoon of Tuesday, March 7, 1854, Sheriff Joel Trammel rode his horse into the train barn and dismounted to talk to Olin. "Mr. Martinmon has agreed that for an appropriate fee to the railroad, you will forge hand and leg manacles with chains for a prisoner that will be transported by wagon to the Concord jail."

"What size? A large person or a small one?" He feigned ignorance of Hortmuller's physique.

The Sheriff removed a length of twine from his pocket and handed it to Olin. "You see here a piece of twine that I wrapped around his wrist and then cut it off at that point. Thus if you curve it around in a somewhat flattened circle atop a table you will note the thickness of his wrists. I think that you will know how to forge the hand manacles to

have the proper fit. Here is a second piece that I wrapped around his ankle so that you will know the size needed for his legs. Do not make them too tight now, but much worse than that would be if they were too loose."

Olin nodded that he understood the directions.

"The task must be complete by Friday noon," the sheriff instructed him further, "because the jail wagon will depart shortly thereafter. You will apply the manacles to the prisoner because they will be closed by means of cold pounding a steel pin to lock them and you can best do that. I do not trust a padlock and key because the man may somehow manage to trip the lock.

I do not wish that under any circumstances that this man become free for he has murder in his heart. From his savage ranting I believe that he lost the sight of an eye during an encounter with a white man and a black woman and he has a terrible thirst for revenge. I am certain that if ever either of them came within an arm's reach of the scoundrel he would throttle them with his bare hands."

Olin felt his throat tighten with apprehension. "What did the white man and black woman look like?"

The sheriff shrugged. "He has never said except he sometimes calls the white man "that rotten kid" as if he might have been quite young."

"Well, please be kind enough to be present when I attach the irons to the prisoner in case in his madness he imagines that I am that young lad," Olin requested with a dry mouth.

"Don't fret," the sheriff assured him. "Two other men and me will be present with stout wooden truncheons to rap his evil skull if the need arises. Or perhaps at the least excuse."

The sheriff mounted his horse but before he could ride out of the barn, Charlie Crowley came running in yelling in angry excitement. "Sheriff, you must stop them!"

Looking down upon the man as he smiled, the sheriff asked him, "Stop who, and from doing what?"

"From calling me names! The woman of the town, that's who! It is Agatha Neucrant's doing, I'm sure. They don't call me Charlie Crowley any more. They call me that other name."

"What other name?" asked the sheriff, pretending that he did not know what it was.

Charlie looked back and forth between the sheriff and Olin in nervousness and embarrassment. He clearly did not want to say the name. "You just get them to stop! That's all. Just get them to stop."

"How can I get them to stop if I don't know what it is that I must get them to stop?"

Charlie looked at him in sheer frustration. After some moments he told them. "They're calling me "Wee-Wee Crowley". I know what they mean by it. They're saying that it's small."

Olin could not imagine for a moment how the women of the town had knowledge of Crowley's private parts.

The sheriff gazed down at Crowley with an expression of amusement. "Mr.

Crowley I must tell you that there is nothing that I can do. If you go sticking your business out in front of other people's noses, then you are stuck with the consequences of it."

Now Olin understood and he did his best to suppress a laugh.

The sheriff rode out of the barn with Wee-Wee Crowley running after him, still pleading for him to stop the women's belittling of his manhood.

There was only two days in which to forge the manacles so Olin set about the task immediately. As he worked he wondered if there had been enough starlight for Jarad Hortmuller to see his face on that cold February night. Obviously Hortmuller had been able to judge from his build that he was not yet a grown man. He had worn a black knit cap for warmth on that evening and he hoped that it had hidden his light colored hair. He would be sure not to wear a cap when he saw Hortmuller again at Friday noon at the jail. Because he had worn a dark coat during their encounter he decided to wear his lightest colored shirt also. He searched his memory and he believed that he had not said a word before Holnami had knocked Hortmuller unconscious with her sock full of lead birdshot so there should be no possibility that Hortmuller would recognize his voice.

Over the next two days he completed the set of chained manacles. Their edges had felt sharp to the touch and he left them that way as a means of further dissuading Hortmuller from attempting to try to slip them off. Late on Friday morning he rented a horse and wagon from Jake Lorrent's livery stable on the railroad's account. He drove it to the train barn to pick up the manacles and a short length of rail to be used as an anvil when he hammer peened the locking pins of the iron restraints.

As he entered the barn he found Andre waiting for him at the forge. Andre had heard of Olin's task to first fashion, and then to apply, the manacles upon a felon. Displaying abundant eagerness to participate in such an event he pleaded to be taken along. "Can I go to the jail with you? I want to see what the outlaw looks like while you are chaining him up."

Olin gave a short laugh because of the boy's apparent thirst for some adventure. "As a matter of fact, yes. When I set down the piece of rail as an anvil it is best if there is a second set of hands to steady the bandits limbs and the manacles upon it as I pound the pin to lock them."

Andre stepped back, his smile vanishing to be replaced with a look of apprehension. "You mean I would have to touch him?"

"Yes, you would have to grip him tightly," Olin informed him.

"But what if he grabs me? What if he breaks my neck? I hear that he is very large and strong."

"Well, I think that he could snap your neck in an instant so I am sure that you would not feel a thing. No pain what-so-ever I would think, if that is what is worrying you," Olin answered mischievously.

"Are you crazy? We must have guns or knives or something to protect ourselves."

"He would take a gun or knife away from us and kill us with it," said Olin.

They loaded the manacles, the securing pins, the section of rail, and a hammer



into the wagon and then climbed up to the driver's box and sat down. Olin snapped the reins and the horse moved into a walk that took them out of the barn and down the street towards the jail as they hunched up in the cold air of March. They remained silent during the journey.

When they arrived at the jail the front door opened and Sheriff Tramell stepped out onto the wooden walkway. The boys climbed down off the wagon and Olin tied the horse's reins to a cast iron horse anchor as Andre reached back into the wagon for the rail section. Olin gathered up the manacles with their chains, the pins and his hammer and stepped up onto the walkway.

"Good afternoon Sheriff. Are your men all set?"

The sheriff nodded affirmatively and then turned and walked back into the jailhouse. Olin and Andre followed him through the front office and then through the rear door to the hall in front of the iron barred cell that held Hortmuller.

"We will start by having him stick his left foot and ankle out through the bars so that I can pin on the leg manacle," Olin informed the sheriff.

Tramell turned towards Hortmuller in the cell. "Stick your left leg out through out through the bars, prisoner," he commanded the man.

"Go to hell," Hortmuller snarled

With deliberate slowness the sheriff drew his pistol from its holster and cocked it. Hortmuller tensed at the sound of the metallic click of the gun's hammer latch.

"In five seconds," the sheriff calmly stated, "this gun is going to accidentally fire a lead slug into your left knee. I will beg your pardon for that accident. However, you may be pleased to learn, that with such a dreadful wound to your leg, there will no longer be a need to affix a leg iron and thus you will have won your way on that particular matter. So, one second, two seconds, three seconds..."

"All right, damn you! Point that pistol away from me," Hortmuller growled as he sank down to the floor and pushed his left leg out between the bars of the cell.

Olin set the rail section in place beneath the criminal's ankle, closed the manacle around it and slid an iron pin up into the aligned pin barrels. One end of the pin had already been peened over and that rested upon the rail. Olin lifted his hammer and began peening over the top end of the pin to firmly secure the leg iron.

Hortmuller glared at Olin with an expression of hate. His rancor was intensified by the fact that the boy did not appear to be afraid of him, and his mind filled with thoughts of how someday he might change that fact. He peered intently at Olin's face in order to fix its features in his mind for future recognition.

Andre had stood all this while transfixed by the drama and did not move to assist Olin.

"Have him slide his right leg out through the same two cell bars as his left leg," Olin said to the sheriff.

Hortmuller complied without prompting from the lawman.

The second chained manacle was closed around the man's right ankle, the pin inserted in place and its end peened over.

Olin stood up and stepped back, holding onto the wrist manacles that were linked by chain to the ankle manacles. He had kept his hammer in his hand to be absolutely

sure that Hortmuller could not reach it and strike him with it.

"Would you please have him pull his legs back in and then lie down on his left side, pulling his legs up against his chest and with his hands out through the bars."

The sheriff pointed his pistol at Hortmuller. "One second, two seconds, three seconds..."

"Awright, awright," grumbled the prisoner as he lay down on his left side.

With the man's legs crooked up to his chest Olin had enough play in the chain to allow the left hand manacle to be closed around the man's wrist and once again he inserted a locking pin and peened it tight. He said directly to Hortmuller, "Stick out your right hand." The man did so without the need for the sheriff to count cadence and the last manacle was secured.

Olin stood up and nodded to Andre that he should pick up the rail section that had served as an anvil. The boy kept a keen eye upon the prisoner that still lay upon the cell floor as he kneeled to grip the rail and slide it away from the cell bars before picking it up. He turned and exited quickly through the open door to the sheriff's office on his way to the wagon.

Hortmuller eyed Olin malevolently. "What is your name?"

"Abraham Donworth," lied Olin.

"Well, Abraham Donworth, you are the first person ever to put me in chains. That is something that I shall never forget. Or forgive. Someday I will be out of the Concord jail and then I might return to this fair town to meet up with some old acquaintances, so to speak," Hortmuller evilly threatened.

Olin turned to Sheriff Tramell. "May I have your pistol, Sir?" he asked. The sheriff rested the weapon's hammer and then handed the pistol butt first to Olin, who took it and pointed it at Hortmuller.

Olin marveled at his ability to stop his voice from cracking with tension as he said, "Look at the muzzle Hortmuller, and remember it well. If and when you ever return to this town you will see a muzzle just like it before ever you see me." He cocked the hammer of the pistol, a thing that he had never done before in his life. At the sound Hortmuller flinched backwards away from the bars. Olin spoke with strong emphasis. "It will be a proud day in my life when I put a lead ball through your only good eye, so just hurry on back here."

Olin did not know how to safely rest the hammer of the pistol so still holding it with his thumb at full cock he turned and stepped into the sheriff's office. The sheriff followed him and shut the door to the cell area. "I do not know how to set the hammer down without perhaps firing the pistol," Olin said in a low voice to the sheriff, "and then I would owe you the cost of a bullet."

The sheriff chuckled and slipped his thumb between the cocked hammer and the gun housing. "Just let go, it can't fire."

Olin was relieved to be rid of the weapon and he could only hope that his threat to Hortmuller with it would keep the man at bay. He thought to himself that a man may hunt a bear without fear, but if he thinks the bear has circled back to hunt him then he is full of fright. He hoped that Hortmuller now felt that Olin was willing to hunt him and thus would decide not to ever return to the town. Only time would tell, but he had the dreadful

thought that he would someday see the man again.

Andre was waiting in the wagon box as if anxious to be away from the place. Olin tossed his hammer into the wagon bed and climbed up to the driver's seat alongside his friend. "Remember the name, Abraham Donworth," he instructed him. "Tell it to the boys also. If any of you ever hear of a man asking for such a person you come and tell me immediately."

"Who is Abraham Donworth?" asked Andre.

"That is who Hortmuller thinks I am," answered Olin. "A person can never be too careful in the choice of their enemies but in this case I have no choice, as the man wishes it."

## Chapter 12

After the end of his workday on Saturday, May 6, 1854, Olin visited the barrister Mr. Hiram, at his office in town.

"Good evening Olin," Hiram greeted him as he entered. "Are you here to discuss your next demonstration?"

"No, Sir. I need your legal advice in regard to a purchase that I wish to make."

"Do you plan to purchase a horse or some such thing?"

"No. I want to purchase some land," said Olin

"Are you considering an acre that you can plant to corn?"

"I wish to purchase rather more land than that."

"How much land?" Hiram asked with surprise and growing curiosity.

In a flat tone of voice Olin said, "About six thousand and four hundred acres."

The lawyer could not find his tongue and simply stared at the lad in stunned silence.

Olin became more specific. "I wish to purchase the town owned land that is called "The Rocks". I believe it to be about two miles wide and five miles in length along the west bank of the river. That amounts to about 6,400 acres."

Mr. Hiram knew that the land called "The Rocks" by the town residents was a place where once the river had flowed over it, carrying away the loose soil and exposing enormous glacial boulders, as well as a vast multitude of smaller rocks and stones. Many of the larger boulders were some thirty feet in width and just as high. In ancient times the river had shifted its course, which was not an unusual event for rivers and streams, and this rocky landscape was left behind. The presence of the boulders made the land seemingly unusable for any practical purpose.

It was an expanse of more than six thousand rocky acres interspersed with groves of pine, maple and oak trees. There was no great area of open and fertile acreage that could support farming, though numerous possibilities for small plots existed. While considerable timber was present in the groves there was no feasible manner by which it could be economically harvested, because the presence of the boulders prohibited the road building that would be required so that horse teams could extract the cut trees on a commercial scale. The town owned the land essentially by default, as no one else wanted it.

The course of the river now flowed strongly along one side of the property, there being about five miles of riverfront. There was a waterfall of some thirty feet in height at one point in the river and that fact had tempted saw mill businessmen because it was a sufficient head of water for a waterwheel. But ultimately they realized that there would be a prohibitive cost for drilling and blasting out the massive boulders by quarry men as well as the labor to construct roads. Also, without the costly removal of other massive boulders no building of commercial size could be erected. While the property continually tempted entrepreneurs, none of them could formulate a workable plan to economically use the terrain.

Mr. Hiram rose to his feet and expressed concern. "Olin, I must tell you that the property is useless. I could not in good conscience ever permit you to do such a thing."

Olin sat quietly looking at Mr. Hiram for a moment before he spoke. "Sir, I am certain that I know what I am doing. My plan is straightforward and I am sure that if I tell you how I propose to use the property, you will give your word that you will not reveal that confidence to any other person. The reason I wish you to keep this secret is because if others learn of it they might steal my ideas."

The lawyer sat down but displayed profound skepticism. "Yes, of course you have my word. But I can not imagine for a moment how anyone could put The Rocks to good use."

Olin leaned forward in his chair and began his explanation of the plan to Mr. Hiram. This required the better part of an hour of time as he went into considerable detail while the lawyer asked an abundance of questions.

When he at last finished the lawyer sat for several moments in wonder at Olin's audacity in wanting to venture into such an enterprise. "Olin, if you are correct," he finally said, "and without any technical knowledge of the things that you have described I can not verify if you are or are not, then you will have embarked upon a good enterprise."

But, if you are wrong there will be two deep regrets. The first is that you will have foolishly lost your money. The second is that my reputation will have been ruined. I will be forever known as the lawyer that allowed a lad under the age of majority to do an extremely foolish thing. The Rocks will become known as "Hiram's Folly".

The seriousness of perhaps causing an end to the man's good name weighed heavily upon Olin's mind. He was entirely confident in regard to the endeavor when it was only his own money at risk, but a threat to another person's reputation and livelihood was hundreds of times more significant. However, he had supreme faith in the laws of nature and to a very great extent his plan depended upon them. So he looked squarely at Mr. Hiram and in a calm but confident voice declared, "It will work. During the first part of winter it will be evident to all."

"It is a very risky bet," the lawyer advised him.

"It is not a bet," he assured him, "as that would involve only pure chance. I am instead depending upon the immutable laws of science and nature. In a manner of speaking, I will have strong friends on my side. I guarantee you that I know the difference between betting upon a wish and investing in reality."

"What do you mean?"

"I am aware that some people will bet for a thing only because they strongly wish it to happen," Olin replied. "They have a superstitious belief that if they bet for it, that act in itself will actually assist it to occur. The only time a person should bet on a thing is when he knows by the facts of the situation that the odds are that it will happen."

"And you believe that you know the facts of this situation?" Hiram asked.

"The important facts in my case depend upon nature," Olin assured him. "The very wonderful thing about nature is that it will never lie to you. It is forever honest and thus you can always depend upon it. That is why they are called "The Laws of Nature." The very same laws of mechanics that exist today will also exist tomorrow and forever after that. They are absolute. On the other hand, if I had to rely upon the opinion of men in this matter I would immediately rise out of this chair, request that you forget the entire

discussion, and be on my way to bed.”

The lawyer laughed slightly. “You are quite the philosopher. Does your theory pertain only to The Rocks or does it cast a wider net?”

Olin expounded upon another subject. “In this country there are people that are betting that slavery will survive in the south. They wish this so much that they also are blindly betting that if a war results that the south will be victorious. Never once do they think the matter through based upon the facts.

Cotton plantations cannot manufacture weapons of war. The industrial factories of the north can. That is a simple fact. Most immigration is to the northern cities and that will provide soldiers for the northern armies. That is a simple fact. And if we assess all of the other facts the conclusion is obvious. Many people will die fighting a war that the north must certainly win. Never the less, there will be a war because of the people who, in their wishful thinking, are placing bets on the wrong outcome, for the wrong reasons.”

The man contemplated the boy’s words for some moments. “I believe that you are correct and that very sadly a senseless war will come to pass,” he finally concurred. The lawyer weighed the perceived risks of the purchase of The Rocks for a few moments further. “Very well then,” he at last said. “You are below the age of majority but never the less the laws allow the means for you to legally acquire the property, given that you have legal representation and some other few requirements which we can satisfy. I will approach the town on your behalf to determine the price.” He peered intently at the boy. “Olin, it had damn well better work. And if I may ask, where will you obtain the money with which to buy the property?”

“I began to work for Mr. Martinmon more than five years ago at which time he paid me three cents an hour as a yard boy. For the past four years or so he has paid me the same as the laborers, six cents an hour. I have few expenses except for food and clothes and thus I have been able to save most of that pay.” He then smiled mischievously. “Further, I have a portion of your ten dollars a month, thank you very much, as well as that of the other good townsmen. I have an account in Mr. Perkins’s bank, which I believe will be enough for the purchase.”

Mr. Hiram smiled broadly at the audacity of the youth and comforted himself with the thought that perhaps Olin's plan actually did have a good chance of succeeding. He stood and extended his hand. “I will discuss the matter with the town councilmen. From your remarks it seems that you have a price in your mind.”

“Yes. The least one.” Olin shook the lawyer's hand and left the office.

Over the next several days Olin experienced periods of harring doubts that alternated with periods of extreme faith in his decision. He feared that his final decision to purchase The Rocks might actually depend upon the mood he was in when Hiram brought him word from the town council, so he used a piece of charcoal to write on the side of the forge anvil the word “buy”.

It was four days later when Mr. Hiram appeared on horse back at the train maintenance barn. He rode his horse inside and halted it near the forge where Olin was working. Looking down from his horse he said, “The price the town fathers wish to receive for the area known as The Rocks is \$750.”

Looking up at him Olin shook his head negatively. “Tell them I will give them

\$640, or ten cents an acre. It is not worth more than that."

"Olin," Mr. Hiram exclaimed with something less than complete seriousness, "the town fathers have set the price at \$750. That is their price. How can a mere lad argue with the authorities?"

"Then tell them I have completely lost interest in the purchase," Olin replied. "They will realize that another offer will not be made for The Rocks within a hundred years and this is their only chance to be done with the property."

Mr. Hiram laughed aloud. "I am glad that we are on the same side as you are a keen adversary. But strangely, I see the word "buy" scratched on the side of the anvil. Do you intend to purchase that mass of metal also?"

Olin remained silent.

"When they stated their price," Hiram informed him, "I rose in indignation, intending to leave the negotiation. I berated the town fathers for attempting to rob the savings of a poor youth. I sensed that they had no mortification whatever at having attempted to pillage the hard-earned income of a boy, but instead they believed that there would never be another offer to purchase The Rocks in their lifetimes. They agreed to \$635."

"That price is acceptable," Olin said with a nod.

Hiram laughed a little. "So then, you will fulfill the command to yourself that is written on the side of the anvil?"

"Yes. It translates into "fools leap in where angels fear to tread"."

The man laughed again. "It will be perhaps next week before the documents are ready to be signed by all parties," Mr. Hiram told Olin, "and for the placement of the transaction into the town's property records." He reined the horse's head around to the right and rode out of the barn.

Olin's knees were shaking slightly when he realized that he had actually made the purchase. By the third week of May, Olin legally owned the ten square miles of The Rocks free and clear and it was not at all a long time before his purchase became common knowledge among the people of the town. There was a phrase that people used when a person bought a property outright, which was that he had bought it "lock, stock and barrel". The meaning was that he had procured ownership of the land, any animals upon it and any goods that might be in storage upon it. They modified the phrase in regard to Olin's purchase and said that he had bought it "lock, rock and barren."

The following Sunday the barrister Mr. Hiram, along with his wife and two young daughters attended the Reverend Kertabit's church service. As they were leaving the church afterwards, four matrons of the town approached him and began to castigate him with great vigor. "How could you allow a young hard working boy to foolishly waste his money upon worthless land?" one of them asked. "You are a grown and educated man and should have known better than that."

Mr. Hiram had not been released from his pledge to keep secret Olin's plans to make good use of the property. "Dear good ladies," he responded defensively, "if you have the great patience to wait for the Second Coming of Christ, then spare a little of it to see what it is that Olin does with the land. I beg you to bide a little until the young

man has shown himself to have made a wise purchase."

The ladies spoke no further but suspected that Christ would return before Mr. Hiram was shown to be correct.

Olin needed working implements for tasks at The Rocks so he placed orders at Henry Macnock's general store for a number of tools and other equipment. These included three 16 pound stone sledges, several Cleveland model tackle blocks with long lengths of stout rope, three Disston's type cross cut saws for two man tree cutting, four stone picks of seven pounds each, two toothed stone mason's hammers of ten pounds each, six pointed quarry picks, various steel wedges, a large stone cutter's saw called a Frig Bob, a smaller starting saw called a Razzor, a triangular file to sharpen saw teeth, two drill braces, a pedal operated grinding stone of 60 pounds for sharpening of the other tools, and an assortment of small hand tools. Mr. Macnock took the order and told Olin that it would be perhaps three weeks before they were delivered up from Boston by rail.

It was another week before Olin next saw Andre again and upon that occasion the French youngster was full of questions. "What is all this talk about you buying The Rocks? Have you really gone crazy? I hear that the women of the town are getting a group together to tar and feather Mr. Hiram for helping you do such a stupid thing."

Olin responded in a firm voice. "You and the other boys will soon be glad that I bought The Rocks and you must always speak well of Mr. Hiram."

"Why would I be glad that you own a bunch of rocks?"

"Because soon you will call it home sweet home."

Andre could not find any words in response to what appeared to be an absurd thing that Olin had declared.

"I have a plan," Olin revealed to Andre, "for housing you and other of the boys during the winter so that you do not have to go barn sneaking as is your usual habit. Between the massive boulders on the northern part of my property are a few open spaces on the very rough order of thirty feet by thirty feet in size. These are not large enough to erect regular homes or workshop buildings but they would be adequate for log cabins built by amateurs. You and the boys are those amateurs"

"You are right about that," Andre readily agreed. "We do not know anything about building log cabins."

"It is not that difficult. We will select several sites as close as possible to the river and towards the up stream limit of the property. There are many pine trees on the property that have a height of 20 to 30 feet and a trunk width of only eight inches on average. You and the boys can easily fell a number of these using the axes and saws that I will provide. I will teach you how to prevent them from falling on your own heads and driving your bodies into the ground. "

Andre winced at the image of a tree falling and crushing him. "I guess it does not take a whole lot of brains to cut down some trees, as long as we know how to stay out of the way when they fall."

"Yes," Olin continued. "Before the ax ever first strikes the tree you must practice your line of retreat. Once the trees are down you and the boys will have to cut off all the branches with the axes and saws. We will decide upon a length for the logs and then



you will have to saw off the top of the trees. You will next have to get the bark off the trunks using an adze."

"I think that those logs are going to be very heavy. How could we possibly carry them to where the cabin is to be built," wondered Andre.

"It will be less difficult than you might guess. To move the logs you will use the block and tackle systems I will give you to drag the trunks between and over the many boulders to the open space where a cabin will be built. Otherwise all of you together could not lift such weights of wood. I will teach you how to lay out the ropes and to use large rocks or standing trees as anchor points to pull against. I have seen it done to remove wrecked locomotives."

Andre was becoming excited at the thought of the adventure of such a magnitude and he imagined the trees crashing down noisily amongst The Rocks, the boys pulling mightily upon the ropes of the blocks and tackles to move great weights. Olin's words brought his mind back to the present. "We will need to sort of flatten the rocky but open area where the cabins will be built. Once the site is relatively flat we will begin laying tree trunks upon the ground, side by side as a primitive floor. The tree trunks will first be split with wedges and hammers. The flattened sides will be set upward and the other side downwards to make a floor. The stones beneath will allow for good drainage."

"Why don't we just make an earth floor?" asked Andre.

"The place is called The Rocks because there are very many rocks," Olin pointed out. "There are some plots of earth here and there near the place where the cabins will be built but their value is much greater if used to plant vegetable gardens."

"Cabins? More than one?"

"Yes. Eventually there will be several. For the moment, focus just on the first one so that you don't freeze your asses this winter. A benefit of the many rocks beneath the floor is that they will provide very good drainage and rainwater will not gather underneath. The floor logs will remain dry and rot free over time."

"You really do mean to do this!" Andre interjected. "You really are serious about this. I can almost see the log floor in my mind. How will we build the walls and roof? How will we raise those logs? "

"I have read that about two thousand years ago the great scientist Archimedes rigged blocks and tackle that he had invented and those allowed King Hieron by himself to lift a fully loaded sailing vessel out of the water and onto a dock. Immense weights can be lifted and moved by levers, ramps and blocks and tackle. Those are what we will use and I have already ordered them from Mr. Macnock."

The other boy was speechless with the thoughts of it all.

"Andre, you will have a large responsibility in all of this," Olin informed the lad.

The French boy's frame stiffened upon hearing Olin's statement. Following instructions was fun, but the word "responsibility" did not sound so carefree. "What do you mean? We will just do what you say to do, that's all."

"I won't be there most of the time, as I will still be working here at the train barn. I must keep working to be able to pay Mr. Macnock for a number of things. Your food and all the tools for example."

"Well, I will do my best but I am not sure if I will succeed. I might make a

mistake."

"Everything will be fine as I will go to The Rocks at the end of each workday and you can ask all the questions that you want. Just always remember the most important thing of all."

A quizzical expression flashed onto Andre's face. "What? What is the most important thing of all?"

"Never let anyone get hurt. It is much better to make no progress for an entire day than to have anyone hurt."

"OK, I understand. But I want to ask you something. You will be spending a lot of money for tools and other things. Are you rich?"

Olin laughed. "It is an investment. I have plans that will allow me to get all my money back. You and some of the other boys will help make that happen."

"We will? How?"

"Never mind that now, just listen to what I tell you." Olin continued to explain how the first log cabin would be constructed. "We will build a single room log cabin. First the logs must be notched near their ends so that they will fit together at the corners of the room and also so that the logs will be able to rest tightly upon each other over their whole length. We will continue interlocking the logs and building them upward until they reach a wall height of about six feet."

Andre was skeptical. "How are we going to raise heavy logs up to six feet high?"

"The same way that King Hieron lifted the boat. We will rig block and tackle to get the job done. You'll see that it really is not that difficult."

"What will the roof be made out of?"

"Logs, just like the rest of the cabin. To stop rain leaks cover the roof with many leaves. These will soon fade and settle into the spaces between the roof logs without falling through and they will plug most of the leaks. Also we need to make a smoke hole."

"We are going to build a fire inside the cabin?" Andre asked with some surprise.

"Either that or you will freeze during the winter. We will use flat stones and dirt to construct an open hearth on the floor in the center of the room directly below the smoke hole. There will be no windows and only a very small door."

At this last information Andre imagined that it would be as black as night inside the cabin. "If there are no windows and a fire is not yet lit, how might we see?"

Olin said, "I have ordered a gross of "Candlefish" from Mr. Macnock."

Andre's face screwed up confusion. "What the hell are candlefish? Is this a joke?"

"No. There really are candlefish."

Andre stared at Olin in confusion as he awaited more information.

"I have read in Mr. Trinkem's paper," said Olin, "that the natives of the Northwest, near places called Washington and Oregon, catch a fish in the sea that some people call "Smelts" and these are very oily."

"Ah, ha! So it is a joke because fish "smell" and they are smelts."

"No, they are smelts and that is a real name for a kind of fish, but those natives also call them "Oolakam"."

"Olin, you are having fun with me," Andre nearly pouted.

Olin decided to end the joke. "Listen, Andre. There really is a smelt type of fish called a candlefish. That is the truth. This fish is about a foot long and somewhat thin around, and it is very, very oily. It is so oily that it can be dried and then placed on the end of a stick with a piece of bark stuck into its mouth, and when that bark is lit it burns like a candle wick because of all the fish oil. They do not have much tallow in that region so these candlefish do provide most of their nighttime light. That is the truth, as I said."

"And you are going to have us burn these fish in the cabin?"

"No. I was joking about that. There is a new type of candle and they only started making them about three years ago. They are called paraffin candles and I have ordered some. This paraffin, I am told by Mr. Macnock, is an almost white color and burns with no smoke. Tallow candles burn with too much greasy smoke and in a closed cabin room you and the boys would gag."

Glad to have the conversation back on a factual basis Andre sighed happily. "Olin, this sounds so much better than sleeping all winter next to big piles of horse and cow crap in some farmer's barn."

"Well, Andre, you and the boys are going to have to work for it. You are going to have to do the work to build the cabins. While you are doing that and afterwards also, there will be other chores."

"It will be worth it. We will have a place to ourselves that nobody can chase us out of and into the cold weather."

Olin continued the instructions. "Nothing should go to waste. There will be many residual pine branches and bark after the logs had been trimmed for use in construction of the cabin. To earn their board and keep the boys are to use these, and dead fall branches also, to build fires that will shatter the extremely large boulders at The Rocks. They should start brush fires at the bases of the largest boulders and then keep them burning continuously, but at only one place for each boulder."

"And that will shatter the boulders?"

"Yes. It is a common quarry practice to heat large stones by fire prior to cracking them with heavy hammers. The heat of the fires will create stresses in the boulders between the very hot point near the fire and the remainder of the cold boulder and cracks will result. This is in the same manner that hot glass will often break when dunked into cold water."

"Are we going to have to whack at them with hammers?" Andre asked.

"No. The fires alone will shatter the boulders without the need of hammering. Quarries do not use fire to a large extent because it is too expensive to pay laborers on a twenty-four hour a day basis to keep the fires fed. Now, I am sure that the boys will love feeding campfires so it should be a keen bit of entertainment for them and not seem at all like work. It is only necessary that the fires be kept burning continuously if possible and because there will be a great quantity of deadfall pine branches and stripped bark about, the boys should not lack for ready fuel supplies. If the boys sleep outside and near the fires on a fine night they should stay far enough away from the immense boulders so that a falling sheet of sheared rock does not crush them during their dreams."

"How do we start all these fires?" Andre wondered. "Like Indians with twirling sticks between our palms?"

Olin reached into his pants pocket and removed a few matches and a small magnifying glass. He handed these to the boy. "If a fire is to be started and the sun is shining you are to use the heat of concentrated sunlight through the glass to ignite dry leaves or grass. Only if the day is cloudy or if it is drizzling are you to use matches that cost money. Here also is a piece of flint and a tin box with some scraps of linen in it. Do you know how to use tinder?"

"Yes. I have seen people strike flint and metal to get a spark to fall onto the black stuff they call tinder and then feed it straw or dried leaves."

"Good," Olin continued, "Now because the burnt ash of hard woods have value in their use to obtain lye for soap the boys are to be cautioned not to mix the soft pine with oak or maple woods in their fires. The cold ash from hard wood fires are to be collected periodically in barrels that Mr. Macnock will provide and these are to be kept covered so that rain water does not soak the ash that is inside them. When a wagon load of barrels are full of ash you are to go to Macnock's store and arrange to borrow his wagon so that the boys can load the barrels onto it for delivery back to the store."

"All that trouble for wood ash?" Andre questioned. "I wouldn't have thought it had any value."

"Some things are deceiving," Olin replied. "Mr. Macnock will pay me for the ashes from all the fires that you make and that is one way that I will get my money back. I have this week read in Mr. Trinkem's paper that during the year 1853 just past, the commerce in wood ash in America was more than \$1,000,000. I need to pay for The Rocks, all the tools and tackle, and for victuals for you and the boys, so we need to earn money in every possible way "

Andre was stunned. "A million dollars? I can't even imagine a million cents. Who is paying that much money for ashes?"

"England. Over the years they have cut down all of their forests in order to have fuel for their iron foundries. Since they no longer have wood to burn they must mine coal but the ashes of coal are of no use in making lye for soap. Because America still has many trees we have lots of wood ash and the British buy it by the ship full for their soap making businesses." Andre shook his head in disbelief at the thought that a country could not plan well enough to preserve its own forests.

Olin told Andre, "I have ordered the correct foods from Mr. Macnock so that none of you will become ill because of poor eating."

"You are going to feed us?" Andre asked happily.

"Yes. Undernourished people don't work well. The other most important thing is cleanliness. Most diseases can be spread from person to person so if one of you becomes ill then probably all of you will."

"Well, we know how to use netting over food to keep the flies out."

"That is fine but there is much more to good hygiene than that."

"Who is High Jean?" asked Andre. "Will a girl be at The Rocks?"

Olin explained. "Hygiene is a thing that people do, it is not a person. It means to stay clean. To have good hygiene within the group everyone without a single exception

must use the swift current of the river at a considerable distance down stream from the cabin as the toilet. In winter a trodden path has to be kept open through the snow to that place.

Anyone that violates this rule once is not to be given food that day and has to retrieve the unauthorized dropping and move it to the river for disposal. Upon a second violation they will be evicted from the property forever. Further, there will be no garbage whatsoever inside the cabins or upon the open ground. All garbage is to be carried to the bank of the swift river, upstream of the toilet, and cast out into the waters."

Andre thought that it might be over doing things but he readily agreed to the instructions regarding hygiene. "We will do it. What else must we do?"

"Stay clean. Wash your hands before you eat if it is at all possible." Olin had also purchased a large covered earthenware crock of pickles, the "medicine jar of the Oregon Trail", being called that because it was noted that if people living upon extremely poor diets ate pickles they tended to be free of scurvy. Unknown to them it was the vinegar that was the beneficial item. Olin had read that the scorbutic disease was the result of a vitamin C deficiency and led to bleeding of the gums, loosening of the teeth, hemorrhages into the tissues, anemia and in the extreme, death.

He had read that during Vasco da Gama's 1497-1499 ocean trip around the Cape of Good Hope more than half of his crew died of scurvy simply because the cause of it was not known. It was in 1747 that the Englishman Dr. James Lind, deduced the cause and brought about a cure to British seamen by having them eat lemons and limes during their voyages, and thus they were called Limeys.

Olin knew also that cabbage kept as sauerkraut and tomato sauces preserved with acetic acid, which is vinegar, kept scurvy at bay during the winter months when fresh fruit was not available in many nations. He had discussed this with Mr. Macnock at his general store and together they had developed a list of foods that would be assembled every three days for transport to the boys on Olin's property. The boys were essentially to be paid in board and keep and for cash they would continue their enterprises on the trains.

Olin concluded his discussion with Andre. "We have talked enough for the time being. I will tell you of the other projects on another day. Now go and gather up the other boys and walk down to The Rocks to decide where the cabin can be located and which pine trees you will cut down for it."

Andre left the train barn in a happily expectant mood and headed for the railroad station to round up his friends in order to take them to The Rocks to embark upon their new adventures.

## Chapter 13

Olin reviewed his plans in his own mind as he boiled water in the tin tube in preparation to soaking and softening wood planks for bench repairs. The food supplies for the boys at The Rocks were to be delivered by Mr. Macnock in his wagon. Olin was always sure to conduct business with Mr. Macnock at the latter's store because Judy was very often at work there. When she first heard that he had procured more than ten square miles of rocks and scattered forest she had been completely mystified, as had been the remainder of the town folk. But she believed that Olin was an intelligent person and she was confident that eventually he would justify the purchase.

When he had visited the store for the first time subsequent to the acquisition she had poked a little fun at him. "So, handsome Prince, I hear that you have purchased the stones with which to build a castle."

"Well, a Princess as beautiful as you deserves a solidly constructed castle."

With mock wide eyed surprise she had exclaimed, "Ah ha, so I may rely upon the thought that some day you will get in line with all the other handsome suitors and ask my grandfather for my hand in marriage!"

Olin had not let his anxiety at the thought of her other suitors show through the smile he wore on his face. "Fair Princess, if I do enough business with your grandfather he will at some point throw you out the window for me to catch and carry off to live happily ever after. The way to your grandfather's approval is through good business dealings, not through begging and groveling like the homely beaus I have seen chasing after you."

"How very romantic," she had exclaimed with a sarcastic smile. "You plan to catch me like a sack of potatoes! Well, it will require more imagination and toil than that to win my heart." Olin resolved to use more imagination and toil.

In addition to the supplies from Macnock's store Olin contemplated the value of having livestock at The Rocks. The price of beef was \$.06 a pound and cattle were priced between \$8 and \$20 depending upon the age of the animal. Thus the purchase of a young animal for later slaughter was a possibility even though the grazing would be poor about The Rocks.

Live chickens were \$0.45 each and he had procured a rooster and sixteen hens so that the boys would have fresh eggs. The rooster was not required for sterile egg production but only so that chicks could be hatched and raised. He would not consider buying sow meat or keeping pigs due to the danger of trichinosis which he knew was caused by a round worm in raw and under cooked pork. It simply was not worth the risk to the boys. To further ward off the threat of scurvy he had arraigned for Mr. Macnock to deliver dried fruit including desiccated figs during the cold months at \$.05 a pound.

Olin had an interest in the raising of vegetables and fruits because it sometimes happens that a quirk of nature can create a bounty and he believed that one should always be prepared to reap it. He was keenly aware of the origin of Concord grapes. In 1843 Ephraim Bull of Concord, Massachusetts, planted a few seeds of the "fox" grape intending to raise these wild grapes. When the vines began to bear fruit Mr. Bull was surprised to discover that just one out of all of the vines bore deep purple grapes of

large size and wonderful flavor, very much superior to the wild fox grape.

This encouraged him to plant 22,000 more fox grape vines. But every single one of those had grapes of the original wild fox type. Thus he had only one superior grapevine and he nurtured that one plant into vineyards of Concord grapes. Thus Concord grapes resulted from a single random, once in a lifetime, genetic mutation that could have come and gone unnoticed unless a man such as Mr. Bull was there to intelligently capture it and profit from it.

In addition to foodstuffs Olin had to provide for the other needs of the boys. The woolen blankets had a cost of \$2.50 each so Olin would be certain to admonish everyone to keep them clear of the fires lest they burn up and the boys find themselves sleeping under nature's blankets; dried leaves and pine needles.

To help in log hauling he was negotiating a price for a mule with farmer Conway, the asking price being \$12.50. For that money Olin wanted a mule collar thrown into the bargain but Mr. Conway was being hard headed about the sale.

The days passed into weeks and Andre continually assured Olin that there had been no difficulty in keeping the boys at their work. They had never in their lives had the quantity, quality and variation of delicious foods as Olin was providing and they were eager to remain members in good standing of Olin's work force. Besides, to a great extent the work was an adventure. They still rode the trains to earn money by entertaining the passengers but were always happy to return to The Rocks.

During one of his visits at The Rocks Olin had observed that the boys were obediently keeping several large fires burning against immense boulders of granite. In a number of instances sheets of rock some five feet wide and six or seven feet high had sheared off the boulders due to the relentless stresses induced by the constant flames. Olin was satisfied with the thickness that was being achieved and the slabs would have an application that would soon increase the income from The Rocks. As the weather became colder in the following months the stress factors between the hot zones that would be created by the fires and the remainder of the freezing boulders would increase and so would the harvest of rock sheets. At the present he was satisfied just to have begun the process of leveling the land.

The cabin had been constructed over the course of three weeks and the boys now had a secure retreat for the winter. All indications were that the boys loved the work and were experiencing a great sense of accomplishment. It had been said that only a hardworking person could have true leisure. This was because a lazy person had to constantly worry about finding ways to avoid work while an industrious person could at the end of a good piece of labor sit and rest to relish the accomplishment. Olin had read the words of Washington Irving: "No man is so methodical as a complete idler, and none so scrupulous in measuring out his time as he whose time is worth nothing."

Every evening the lads had sat about the campfire to eat their evening meal and delight in the sight of the structure that had risen as a result of their efforts. Because of the food that Olin provided all of them had been putting on muscle and weight. One evening, from out of deep thought the boy named Arthur asked a question. "Why don't the slaves rise up and rebel against their owners? Aren't there usually more slaves on a plantation than owners?"

"Well," Olin mused, "why don't field horses rebel at pulling the plow? They are by far stronger than the plowman." He then answered his own question. "It seems that in humans as well as animals that once their will to resist is first broken, it generally stays broken. I have read many times of nations that were conquered by the people of another nation and for many years after they submitted to the authority of the invaders even though they actually far outnumbered their conquerors. It seems that only when the slaves or the conquered are very poorly treated for a very long time that finally rebellion occurs. So, as long as the southern slave owners feed, clothe and house their slaves, and do not whip them too often, they will not rebel." In his mind he envisioned that havoc that could otherwise be caused by three million rampaging slaves.

In the light of the flickering flames of the campfire he gathered the boys together and had them sit in a semi circle on the ground. He had decided that it was time to reveal more to them about his plans for The Rocks.

"All of you now have bank accounts in your names. At the end of each year if you have remained and worked that full year, I will deposit a sum of money into each person's account. If you stay even one day less than the full year you get nothing. That may seem unfair but the reason for it is that we, as a group, will make an investment in you, as an individual. We will invest our time and our efforts to see that you learn things that will help you all your life long. If you learn these things and then soon leave us you will take our investment with you. Because it will require a certain number of people to make The Rocks profitable for all of us, if you leave we must get a newcomer and start all over again to make an investment in him and that is a cost in time and effort to those of us that stay."

He paused to determine if there would be any resistance to his statements. They nodded their heads in a manner that indicated that they saw the logic of his position on the matter. So he continued. "During the year you will be well fed, always have proper clothes, visit the doctor if you become ill, and go to school a certain number of hours each week. You will be able to earn money, which is yours to spend, from the train passengers by the things that I teach you. As each year passes you will have learned some valuable trade experience such as building construction, blacksmithing, gardening, lumber making, boat construction, grain milling, quarrying and the like."

Once again he paused and waited for them to ask questions. There were none. They were too enthralled by his words to speak.

"Finally," he continued, "some day you will be men and you will earn good wages from the very things that you yourself helped to build. Also, if you stay twenty years, then you will begin to own a share of the profits in addition to a salary. At first only a little but more and more with each year. This share will be paid to you for the rest of your life as long as The Rocks continues to earn a profit.

The reason for this is to encourage you to make The Rocks your life's work. If we all come to know and be skillful in those things that have to do with The Rocks such as its stones, its trees, its water power, its buildings, its machinery, then we can get the greatest profit out of it."

"What do you mean when you talk about waterpower and machinery?" the boy named Wolfi asked.



"I will talk about that more at a later date," Olin replied. He looked at each of them in turn and it seemed they all understood what he had said so far and found no fault with any of it. In fact it was great and wonderful news as far as they were concerned.

There however remained something of a serious nature to be considered and Olin introduced that subject. "Today we are all friends and each of you has proven that you can work hard and get along with the others. But, people are people. Some day it may happen that one of you no longer wants to work hard, or get along with the others. Or the politics of men, when we become men, drives us apart. To prepare for such a possibility we must start out with two things that we all agree upon."

Looks of both curiosity and apprehension appeared upon their faces. Everything that Olin had said so far was almost too good to be true. Was he about to say something that would evaporate all the high hopes that were building within them?

Olin went on in a serious tone of voice. "You must first agree that you will never support the idea of slavery. There will never be salves here at The Rocks. I own The Rocks, it is my clear property and it is my right to declare that slavery will never take place within The Rocks. It is your right to either accept that or not to accept it. If you do not accept it then you must leave. We will give you food and some money but you must leave." He waited to see if there would be any immediate refusals.

"I accept that," Andre declared. "Slavery is lousy. No one has to tell me this. All I have to do is to imagine that I am a slave and how I would feel to know that slavery is horrible!"

The boy named Donald agreed. "It is not a matter of color, of black or white. It is a matter of freedom. If the masters were green and the salves blue it would not make any difference. The blues would still want their freedom. The same as us or the animals in the forest."

"Quite a good answer, Donald. Quite good indeed," Olin remarked.

The boy named Arthur asked, "While I also do not agree with slavery, does what you say mean that someday there may be free black people here at The Rocks as a part of the group? I agree that they should not be slaves but I am not sure how it might feel to have them in our group; to eat with them, sleep near them, talk to them, work with them..."

The other three boys appeared eager to hear the answer to Arthur's question.

"That takes us to the second thing that you must agree upon, or leave," Olin responded. "First I will tell you a little story to make a point. In a boat at sea one of the sailors began to drill a hole in the bottom of the boat. When the others in the boat complained he declared, "Why are you complaining, I am drilling the hole only under my own seat."

The point is this: there is nothing that you will do here at The Rocks that effects only yourself, it will effect all of us. So if one of you misbehaves in a serious manner and refuses to correct himself then an action must be taken, but not without some thought and consideration. We will all make small mistakes and that will not be cause to be asked to leave. Therefore, you must agree that before someone, other than myself, can be told he must leave the group there has to be an open vote by all of us. In that vote at

least four of us, that is to say two thirds, must agree.

I can never be told to leave because I own The Rocks, but I will strive not to be mean and miserable. Also on the other hand, I will not sell the property and tell you all to depart unless four of you agree to such a thing. I give you my word now on that fact. As to blacks or anyone else coming into the group, again there must be four yes votes. So Arthur, yes, there could be blacks in the future, if four of us vote to allow it."

Arthur still appeared a little apprehensive but the others seemed to find the demands to be acceptable. However, they guessed from Olin's expression that there was more to be discussed.

He continued, "Those are the only things that we will vote upon. Everything else is my decision. If I say build a waterwheel, then you must build a waterwheel or leave. There will be no votes on the matter; mine alone is the majority vote. If I say make a gristmill stone, then you must make a gristmill stone or leave. I will decide what pay each of you receives and when I will pay you.

Now, I have good reasons for that. I will make many business agreements with storeowners, farmers, lumbermen, stonemasons, and so on, and it is absolutely necessary that these agreements be kept. We will fail totally if I make an agreement with a businessman one day and some of you refuse to keep it the next. When I give my word to them they must be sure that I will keep my word or they will do business with someone else, to our great disadvantage.

Lastly, you do not have much value as illiterates so I have arraigned with Mr. O'Connell at the school that all of you will attend classes four hours each day on Tuesday, Wednesday and Thursday while the school is in session."

Wolfi sat upright and informed him, "I am not an illiterate, I am a German." The others did not laugh because they also did not know what an illiterate was.

"An illiterate is someone that cannot read and write," Olin explained. "It is not a nationality, Wolfi. You will all learn to read and write and to do ciphers. Once you are able to read I will bring you books from the library on subjects of importance to our existence at The Rocks."

The boys were content with the arrangements that he had detailed, and more to their liking was the knowledge that they had a future, a place, and a family. Olin left them with some last thoughts. "If you wish the others to be friends to you, all that you need do is to be a friend to them. Our coming together is a beginning; keeping together is progress; working together is success. "

## Chapter 14

As the weeks passed Olin remained attuned to the politics of the nation because he felt that it was a wise thing to do. While public education would not seem to be a study in politics, it actually was. He was aware that for the first time in the history of the nation a law had been passed making school attendance of children mandatory and which provided funds for public schools. The post of Truant Officer had been created in order to enforce the law, as many parents preferred that their children work at the family farm or business instead of attending school.

It was political nationalism that had brought about this seemingly benevolent law. The government sensed that there was a need to educate the children of immigrants in the language, ways and manners of Americans before large segments of the population grouped together by nationality and essentially created a number of foreign countries within America. Europe be praised, but it was a collection of countries with their own languages, cultures and currencies. There was no wish that America divide itself into ethnic regions and become a second Europe.

The German revolution in 1848 had attempted to overthrow feudalism in the more than thirty states that were ruled by petty princes, in the hope of creating a cohesive nation. The rebellion had failed and great numbers of the revolt's leaders and followers immigrated to America in the hopes of creating a new Germania. The public education of their children in English and in the ways of Americans was intended to foil that attempt and the same was true for the Dutch, Swiss, Welsh, Irish, and Scottish immigrants who were attempting to establish their own nationalistic provinces.

Olin was also becoming aware of the meaning of the term "mass hysteria". America in 1854 was predominantly Protestant and many of those citizens did not believe that it was a potato famine that drove Irish Catholics to immigrate. They were certain that it was a deliberate plan by the Pope to gain control of the country. As usual, the more preposterous the lie, the more easily it seemed to be believed. They would sooner accept that the Pope could fake millions of deaths due to a non-existent famine and convince millions of Irish people to immigrate, all of them keeping the secret, than to believe that a true natural disaster had occurred. When the failed German revolution resulted in increased immigration of yet more Roman Catholics, the Protestants took it as proof of their papal dominance theory and a law was proposed to stop the influx of Roman Catholics. Olin took notice of these things, once again counseling himself that mindless emotions will surmount factual logic any day of the week. It seemed that men are like sausages and allowed themselves to be stuffed with whatever one wishes.

But not all newcomers were exiles due to famine, revolt or some nefarious plot. The invention of the cotton gin by Eli Whitney in 1793 generated such a great market for cotton that slaves were imported forcibly by the millions to exploit that commerce. It would not be the influx of Europeans with their various cultures and religions that would bring the United States to war as almost everyone expected, it would instead be the three million Negro slaves that would achieve that end.

Many New Englanders and other northerners profited in one way or the other by the slave trade, mostly as slave and cotton ship owners or as investors and dealers in

the products that resulted from slave labor. The textile mills of Lowell, Massachusetts urgently desired vast amounts of southern cotton and employed thousands of Irish immigrants to work the looms.

Thus there were no distinct geographical boundaries when the question of slavery arose and there were pro-slavers and abolitionists in every city and town of the country. In Olin's mind that meant the most terrible of wars would come to pass, relative against relative, friend against friend and neighbor against neighbor. That was why he kept his mouth shut upon the subject of slavery because no matter what one said; it would encourage some but antagonize others.

Sometimes wars are caused by realities and sometimes by fantasies. The reality of the slavery issue was economics. The fantasy of it was bigotry. Olin sensed that the bigots far outnumbered those that stood to gain monetarily from slavery because for every wealthy plantation slave owner there were many, many thousands of poor southern and northern whites. These lower classes needed someone else that they could point to as being less than them, or else they themselves would be the least among men. A man may suffer total financial loss, the departure of his spouse and the complete failure of his children, but all of these things are nothing in comparison to his trepidation of being the least among men. He will fight to the death to avoid that fate never realizing that he might soon die for the wealthy few that could care less if he ever existed except to serve them.

Olin knew that the politics of slavery depended upon these lower classes. How easy it was to get a vote for slavery when a poor white man was told repeatedly that otherwise the slaves would be set free and become his equal. That was indeed a greater motivation for many white men to support slavery than holding a gun to their heads. Olin read, listened and watched how people were responding to the distant sound of war drums and attempted to discern what it all would mean to him and the boys in the coming years.

In the following months Olin took those actions that he believed would achieve the greatest good for the boys at The Rocks and himself. To arrange for the boy's schooling Olin went on Thursday, June 2, 1854, to visit the local school principal Mr. Patrick O'Connell. He hoped for advice upon his obligations to have the lads attend school, the boy's parents and relatives having long ago left the youngsters to their own devices and fate.

The principal, as might have been expected, was happy to learn that Olin was encouraging the boys to attend classes and thus did not require the wrath of the Truant Officer or the law. Mr. O'Connell raised another issue. "A Mr. Elliott Segall authors an article for the local weekly paper and he wrote something bizarre in it this past week. He believes that satanic activities are taking place at The Rocks."

"What?" exclaimed Olin in great surprise and disgust. "What has he written?"

"He wrote that if fires burn all through the night, every night, and if figures can be seen moving and gyrating about by the glow of the flames, then perhaps someone is performing evil ritualistic dances and chanting to Satan."

Olin was stupefied at the accusation and made no response for several moments. Finally he said, "The man is seeing the devil upon the wall."

"Yes, I think that I just previously said something to that effect."

"Sir, there is an old phrase," continued Olin, "which is "He sees the devil upon the wall" and it means that sometimes a person walking in a village sees a fleeting shadow upon a stone wall but there is no one else nearby and the person knows that it is not his own shadow. So he believes that the invisible Devil cast a shadow upon the wall and becomes alarmed. During this fright he fails to observe that a bird flew overhead and that is the creature that caused the innocent momentary shadow. Out of something simple and natural he creates demons and devils. Mr. Segall is doing the same thing.

And here we find good use of the words of Saint Stanislaus, the patron saint of Poland and Cracow, who said, "Without facts, it is hardly possible to suspect another without having in one's self the seeds of the baseness the other is accused of."

O'Connell was stunned by Olin's ability to make the quote. "You have studied Saint Stanislaus?"

"I have read of those that believed in justice regardless of the consequences," replied Olin. "When by force the brutal King Boleslaus took the beautiful wife of one of his noblemen, only Stanislaus dared to stand against him and excommunicate him. When the king's guards refused to kill the beloved Stanislaus, Boleslaus himself stabbed him to death in Saint Michael's chapel and then had his body cut into pieces and scattered to be eaten by wild animals. It is a history that I would find difficult to forget."

"Segall makes another accusation that appears not to make any sense," O'Connell said. "He claims that you purchased exactly 6,660 acres of property and implies that in some manner such a quantity is an evil number."

It took some moments for Olin to deduce Segall's contorted reasoning but when he did he burst out in laughter. "He has read his bible once too often."

"Is that possible?" O'Connell asked.

"It depends upon the person that is doing the reading. He is making a reference to Revelations 13:18," Olin informed the school principal. O'Connell did not know from memory what that passage stated and as he sat waiting for Olin to explain it he wondered why Olin knew of it.

The lad said, "The passage is written in a manner that draws the rabid attention of numerologists and other people that believe that they have been put upon earth to interpret the meaning of seemingly mysterious sections in the bible. I believe I can make a fairly accurate quote of 13:18. It is something like this, "A certain wisdom is needed here; with a little ingenuity anyone can calculate the number of the beast, for it is a number that stands for a certain man. The man's number is six hundred sixty-six".

"I don't understand," O'Connell confessed.

Olin enlightened him. "The reference is believed to mean that the "man" mentioned is the "beast", that is to say, the Devil. Now as you are aware, Caesar Nero was the persecutor of the early Christians. Further, if numbers are assigned to the letters of the Hebrew alphabet, then in Hebrew the name Caesar Nero, along with all his titles, will add up to 666. There are many common folk that simply believe that it is the "Devil's number". So we find Segall drawn happily into the challenge of finding the Devil's number 666 somewhere at The Rocks and he does so by creating the number

6,660. Perhaps he believes that there are ten devils there," Olin said as he laughed.

O'Connell was caught between mirth and uneasiness regarding Segall's accusation. "He said another thing also," he informed Olin.

"I have no doubt of that."

"He said that in Salem, New Hampshire, a town not very far from here, there is an ancient and uninhabited place constructed entirely of sheared rock slabs and other pieces of sandstone. The small low huts and other structures are actually constructed of these stones piled one upon the other."

Olin was smiling. "That sounds innocent enough but I am going to guess that Segall found some evil in it."

"Yes. He said that those stones cause him to think of your stones."

"Easily done even though mine are granite and not sandstone."

O'Connell continued describing Segall's accusations. "He states that there is one stone slab in particular there in Salem that has evil origins. It is a slab some four feet wide and six feet long. It lies flat like a tabletop and it is only as thick as one. It is elevated above the ground somewhat by being rested upon stone stacks and could in fact be used as a table."

"Perhaps it is a table top," Olin offered, "and that is where people gathered to eat. But I suspect that simple logic has been evicted from Segall's mind."

O'Connell continued to relate the man's deluded reasoning. "Segall states that a deep groove has been scrapped into the top of this slab. About an inch deep and all around the surface, encircling it near the outer edges. The slab lies at a slight tilt and down at the lowest edge of it another short groove is made from the encircling one and out to the end of the slab."

"Perhaps like the blood channel of a butchering board," Olin offered.

"Yes, just so," confirmed O'Connell. "He asks us to imagine that if a person was laid upon the slab and then his heart cut out from his body, his blood would then flow outward to the groove all around the corpse on the top of the sacrificial slab and then be drained off the slab by the last short groove into a large cup. And then drunk by the Devil Worshipers that performed the human sacrifice to Satan."

The room echoed with Olin's laughter. O'Connell could not for the life of him guess why the thought of horrific human sacrifice and the drinking of blood would appear so hilarious to the boy. Perhaps the lad was somewhat mad as suggested by Segall.

Olin wiped tears from his eyes with the back of his hand. "It is a lye bed!" he struggled to say through his mirth.

"What? He is lying and it is a bed?" asked the confused O'Connell.

Olin attempted to hold back his laughter. "A lye bed. Wood ashes from the daily cooking fires were placed upon it and when it rained the water washed the lye out of the ashes and they flowed out to the encircling grove and then ran down to a bucket that was placed just under the end of the last small groove. Their only wish was to make lye soap by mixing the ash lye with tallow, and the only things they sacrificed were lice and nits."

The principal felt embarrassment at having at least partially succumbed to

Segall's satanic fantasies. "My God Olin, I am sorry to say that when he related the story to me that I actually did entertain the thought of ritualistic murder. And here we come to see that it is simple and innocent device to make soap."

"Sir, I do not mean to instruct you as that would be impolite but consider the following," suggested Olin. "Whenever we are confronted with a mystery that we wish to solve we should first try the most simple and honest guess. Only if that fails should we move on to more devious guesses. Otherwise people will forever find themselves drawn down twisting false trails."

O'Connell was concerned with his own failure to immediately see the innocent use of the stone. He was a highly educated man and should not have fallen into such a trap. It made it vividly clear to him how easy it was that the uneducated masses could be so easily fooled by propaganda and false stories.

"If you tell me what innocent thing is occurring at The Rocks with your fires," Mr. O'Connell offered, "I will convey that to Mr. Elliott Segall. Then we can put an end to this foolish matter."

"On the condition that you do not tell Mr. Segall, or anyone else for that matter," Olin responded, "I will tell you exactly what the fires accomplish. It is an innocent thing as you say but Mr. Segall does not appear to believe in innocent things. The man is too ignorant to realize that he is ignorant. I wish to let him wonder a while longer, hopefully for his own education when he realizes finally how wrong he has been."

O'Connell agreed and Olin explained how the fires were simply intended to shatter the large boulders. And then those slabs were to be broken into pieces suitable for foundation stones for houses and barns. O'Connell chuckled and gave his steadfast promise that he would not reveal the information to anyone as there was also no love lost between himself and Elliot Segall.

During the discussion it became evident to Mr. O'Connell that Olin, whom he had just met for the first time, was not an ignorant or uneducated person. When questioned Olin revealed only that he had read a considerable number of books on a considerable number of subjects.

"I think perhaps only about one percent of my students have actually read a book from cover to cover," O'Connell revealed, "so it is somewhat remarkable that you have read so many. Have you also some understanding of mathematics? Would you accept that I pose problem to you?"

"If you wish. I am always curious as to the solution of problems."

"All right then," said O'Connell. "First we consider a rope being tied between the tops of two poles that have been set vertically into the ground. The poles are each twenty feet tall. The rope tied between the pole tops is twenty-one feet long and it is not pulled tight, therefore it sags between the poles. That means that the poles are less than twenty-one feet apart. The depth of the sag is ten and one half feet below the top of the poles. Can you envision this?"

"Yes," Olin responded. "The suspended rope sags due to gravity and forms a particular curve called a "catenary", which has its origin in the Latin word for chain. The ancients often observed ropes and chains hanging in this fashion and the mathematical equations for this curve were derived in the 1600's. One method employs hyperbolic

functions. I anticipate that your question will be "how far apart are the poles" because you have already revealed to me the total sag of the rope."

O'Connell was completely taken aback. "Yes. But how in the world do you know about this curve?"

"It is a common subject of analysis in the mathematical books in the library and it is only necessary to read that which is written."

"Would you like to have a scrap of paper and a pen with which to figure the problem?" the principal asked.

Olin gave a short laugh. "I should guess not. If a piece of paper and pen were actually required to determine a solution then you would never have asked me the question in the first place because such analysis is far beyond that which you teach in this school. Additionally, a solution must not require a book of mathematical tables as you did not offer me such a thing."

"Well then, what do you think that I mean by the question?" asked O'Connell.

"It must be that it is not a question of mathematics but instead one of deductive reasoning."

"Well, you have deduced the nature of the question. Can you deduce the answer?" O'Connell knew that his little trick had been found out but it was still to be seen if Olin could arrive at the correct answer.

"Certainly," Olin replied. "The poles are side by side as that is the only possible way a twenty-one foot long rope can sag half of its length."

O'Connell was startled by the quickness of the answer and sat contemplating Olin for several moments. Then he said, "I hear that you have performed a demonstration of a pendulum. You used rope and a section of railroad track. Do you know how to solve the equations for the time of swing of a pendulum?" asked O'Connell.

"Yes," answered Olin.

"Are you saying that you understand the employment of an infinite series to such a mathematical problem?"

"Yes," replied Olin, "but such a series is not required to solve that problem. Or any other for that matter."

"But," O'Connell almost stuttered, "Mathematicians employ many, many successive computations against such a problem, each computation bringing them ever closer to the correct answer but not quite at it. Are you saying that they are doing a useless thing?"

"Yes," replied Olin, "and I have that on a good authority."

"Whose authority?"

"God's"

O'Connell was stunned by the answer. Was Olin somewhat crazy he wondered? "How is that?"

Olin smiled. "Do you agree that God knows all things?"

"Yes, of course."

"Well then, if an infinite series was required to solve the problem, it would require and infinite time to be solved and God would never reach the answer. Thus there must



be another method of solution, the same one that God uses.”

“Olin I am compelled to agree with you because your logic is so simple and straight forward,” O’Connell stated. “Do you know that other method?”

“Yes Sir,” confirmed Olin. “I have derived an equation that allows me to solve perfectly for the time period of a pendulum without the use of an infinite series. I will write it down for you if you wish and you may test it yourself.”

Yes, please do so,” requested O’Connell. He then made a suggestion. “I would like you to submit to testing by means of the school’s final exams to determine if you have acquired the equivalent of a secondary school education. If you pass the tests it is within my authority as the principal to issue you a diploma.”

Olin looked forward to such a thing. As he wrote down his equation he said, “I eagerly accept the offer and I thank you for it, Sir.”

The next day the English teacher Mr. Sprichen administered the exams. Olin easily accomplished the task successfully because the knowledge required for local school graduation in 1854 was minimal. A student was in essence expected to be able to count his change from theoretical purchases, sign his name and be capable of reading bills of sale and other short written and printed items. In the case of girls they must be able to cope with recipes. It was expected that most male students would spend their working lives on farms or as common laborers and that the females were destined for homemaking.

Later that day Olin visited Mr. Macnock’s general store and proudly displayed the diploma to Judy. “You see,” he exclaimed, “here is proof that I am not a dimwit. Now you must get in line behind all the other pretty lasses that will seek me as their Prince. I think that I must be very careful to select a young lady of intelligence and charm, that is to say a person matching my own qualities. Has there been any such in this store today?” He cast his glance about in mock inspection.

As it happened Judy could throw objects quite accurately. The section of calf liver that she had been trimming with a butcher knife struck him square in the forehead. It hung there a moment due to moist suction and then slid slowly down over his nose and thence to the floor.

## Chapter 15

The month of July arrived and through Andre's good managing of the boys they all remained healthy while living at The Rocks. Olin had decided that since the deciduous trees were in full leaf it was time to take the five of them on a hike through the boulders and stands of forest in order to familiarize them with the limits of the property and its contents. The boys were ever eager for adventure and were thrilled at the prospect of a hike deep into The Rocks, something that Olin had forbidden them to do without his permission.

While the land he had procured contained numerous rocks and boulders there were many earthy areas among those that supported individual trees and in a number of instances fairly large groups of trees. On this day Olin was interested in a particular species of tree known as the Sweet Birch. This type of tree grew to heights of 50 or 60 feet but did not have the stoutness of oaks and maples. It provided a wide canopy of leaves that possessed a pleasant lively green color when in the full sunlight. The bark was a dull grayish black color and due to that fact the tree was also sometimes also called the Black Birch. When Olin finally located one of these trees he reached up to a branch and snapped off five leaves. Handing one to each of the boys he instructed them to smell the sap at the stem of the leaf they held.

"It smells like candy!" exclaimed Benjamin.

Andre was amazed. "How can a tree have such a sugary odor? It is the smell of Wintergreen. It does smell like candy."

"The sap of this tree is used to flavor candy and medicines and it can also be used to brew Birch Beer," Olin informed them. "I have an agreement to sell leaves and branches from these trees to Mr. Albin Lewis who runs the pharmacy. We do not want to kill the trees in the process so for all them that you can find cut only about one fourth of the branches off each tree each year. The branches will not be heavy so it should be easy enough for you to carry them out to a central place for piling just beneath where the land rises above The Rocks.

On the top of the rise is a dirt road and if we tell Mr. Lewis which day you will be cutting the branches he will send his son out with a wagon upon that road. When he arrives and calls down to you, carry the branches up and load them upon the wagon. Also, I have bought tree taps and buckets from Mr. Macnock. I will show you how to tap the tree trunks and collect the sap in the buckets and we will also sell the sap to Mr. Lewis.

Eventually our cutting of the branches might kill the trees and during the past century many people have lost income from their land by over harvesting. So you must do the following; cut some small branches at an angle to expose the greatest amount of sapwood and then stick them point downward into the earth at a distance of perhaps ten feet from the tree you are cutting. If the soil were proper to grow the original tree then it should be good enough to grow cuttings also. The Rocks must provide an income in order to pay for food, equipment and other things so your welfare depends upon how we manage these things."

Olin led them further into The Rocks and as they walked they took a deeper

interest in the trees they encountered, where before a tree was just a tree. Olin identified Maple trees to the group and told them that next spring they would tap those trees for sap and that would be sold to Mr. Peter Conway. He had a sap barn at his farm where in large copper kettles he boiled the sap down into thick syrup. He had gotten farmer Conway to sell a mule and collar for \$11 with the agreement that he would sell his maple sap only to him, there being several other farmers that also boiled maple sap. A simple agreement to do something that cost nothing could reduce the price of a desired item, and that was the kind of bargain Olin enjoyed most.

Andre mused. "Isn't it a strange thing that a tree like a maple can have a sap that becomes a sweet syrup? And the same strange thing for the Sweet Birch. But neither of these trees have sweet fruits. An apple tree gives sweet apples but its sap is not sweet but you would think that it would have to be in order to make the apples taste good. Does this make sense to you Olin?"

"A very good rule is not to ever question nature. There is no "why" to nature, there is only an "is" to it. Nature is nature. Try to learn as much as you can about nature and then make the best use of that knowledge."

As they continued their hike they heard the raucous alarm calls of the Blue Jays that monitored their progress from the safety of the treetops. Flocks of Gold Finches were scared up into flight from the ground where they had been feeding upon dried seeds. The flash of the bright lime green and yellow plumage of the male birds intrigued the boys as they stood gawking at the departing coveys.

The Chickadees with their black feather stripes over their eyes were not impressed or concerned with the passage of the group and did not hesitate to land in a bush very near the boys if a juicy inchworm was to be had there.

The fox's sharp hearing had detected the approach of the boys when they were more than a mile away and it watched their movements warily from the cover of dense bushes as they intruded into its territory. A fox will avoid any animal larger than itself and it surreptitiously slunk away unseen as the chattering boys noisily advanced through the underbrush.

Benjamin stopped walking and pointed upwards to the clear blue sky. "Look at that bird just floating along up there!" The others looked up and for some minutes watched the Peregrine Falcon as it glided on open and motionless wings in its search for prey.

As they continued their hike they observed a number of locations throughout The Rocks where low mounds of blueberry bushes grew with still unripe fruit. When they passed by these Olin told them to remember where the bushes were because in about a month they would return to them to pick the ripe blueberries. Mr. Macnock would provide paper bags to collect the berries in and when they had completed the harvest of the bushes they were to carry the full bags to Macnock's store. He would buy them so that Judy could bake pies for sale in the store, sell some to other women and girls for their baking needs and cook and preserve the remainder.

Olin encouraged the boys to eat all the berries that they could during the harvest in order to assure that they had a healthy diet and also because it would be that much less food that he would have to purchase for them as nature did not charge him for the

growing of the berries.

Coming upon an oak tree with a straight trunk of some seven or eight inches in diameter, and rising about forty feet high, Olin instructed the boys to remember how to return to it at a later date. "You will come back to this tree with axes and saws and fell it. Then you will saw the trunk to a length of twelve feet and cut all the branches off of it. Then you will use the mule to drag it back to the log cabin. That trunk will become the hub axle for a water wheel that you are going to build."

"A water wheel!" They exclaimed in unison. They were filled with excitement at the thought of building such a thing and they began asking questions as to how, when and where.

Olin waited for them to calm down a little. "As you know the river has a thirty-foot waterfall at a place alongside The Rocks and that drop is enough for a water wheel. You must first build a sluice, which is a sort of streambed or ditch, that begins at the riverbank some fifty feet or so above the falls. You will clear rocks and dirt to a depth of four or five feet, the same wide and about forty feet directly inland from the river. Leave the river still dammed out as you do this so that you do not have to work in water.

Then you turn the channel you are making down alongside of the river for about fifty feet until you reach the area alongside the falls where my land drops down about thirty feet. There you will build a sluice gate of wood so that the flow of water can be controlled onto a wheel directly below it. The stonemason, Mr. Horan, will build a masonry foundation for the sluice gate and also mortar and stone pedestals for the bearings of the wheel axle. This is to be sure that when we put the wheel in place it has a very solid foundation that will last for many years.

"Why would Mr. Horan do that for us?" Andre asked.

Olin explained, "Mr. Horan builds foundations for houses. In this area of our state fieldstones are in general rounded in shape. When one of these is placed upon another they tend to topple off. If these are used in a foundation it is then only the mortar that holds them in place. That is very much less in strength than flat stone upon flat stone. To get flat stones to build with, Mr. Horan has to go to the limestone quarries in Vermont, which is cost, time and trouble for him."

The boy named Donald was the first to excitedly come to the correct conclusion. "That is why we have been burning fires against the big boulders! To make flat stones!"

All the boys looked at Olin for confirmation. "Yes, that is why," he said.

"But we have probably made more that Mr. Horan can use," Andre suggested.

"Mr. Horan will buy them all," Olin assured them. "He will use what he needs for his business and then he will sell the remainder to stone masons in the towns about us."

The boys had thought that they had only been cracking boulders with fire in order to get them out of the way. It gave them a further sense of fulfillment to learn that they had actually been engaged in another productive activity by keeping the fires burning continuously.

"You will have to break up some of the larger stone slabs with sledgehammers but they should crack easily enough. Don't start doing that until Mr. Horan is there because he will tell you then what size pieces are the best for him."

Wolfi made an observation. "You are right about most of the stones found

hereabouts being rounded as we see them in all the cattle walls that the farmers build. They are so rounded that the walls can only be built two or perhaps three stones high before they slip off. But something that I do not understand is why such low stone walls keep the cattle in when the animals could easily step over them and wander away."

"It is a matter of instinct," Olin answered. "A cow is an extremely heavy animal and if it ever lost its footing and fell it could easily break one of its legs by its own weight. Cows instinctively will not walk over any ground or rocks where they might stumble and fall. So even though the wall looks low to us it is a great obstacle to a cow. Each spring the farmers harvest the stones that have grown in their ground during the winter and continue to build and repair their walls."

As a group the boys stared at Olin in bewilderment because of his use of the words "harvest" and "grown" in regard to stones. Donald was the first to ask for clarification. "What do you mean? It sounds like they grow stones the way they grow pumpkins."

"Well, the farmers do call the stones and boulders "New England potatoes", " Olin answered smilingly.

The boys laughed at the thought of rocky potatoes but they were still waiting for an explanation.

He provided one. "When water in the ground freezes into ice it expands, and this expansion pushes upon everything in the ground including all the rocks and boulders. In the springtime the surface of the ground warms first, its ice crystals melt and the force is reduced there. But lower down the force due to the expanded ice still exists and now it can actually move boulders upward through the warmer, softer earth. So when a farmer clears the boulders from his land each spring he is well aware that he will have to do it all over again a year later."

Winter was still months off but Olin knew that there were preparations that had to be made for the coming cold weather. "You must make charcoal for smokeless heat in the cabins during the winter," he instructed them. "So, pick a location a little away from the cabins and make a big stack of dead fall branches. Get them from under oak and maple trees, not pines. Use dry leaves and small dry twigs in the deep center of this pile as the start of the fire. Get the leaves to burning good and then make sure that some of the dead fall branches are also burning and glowing red."

"How are we going to get charcoal if we burn all the wood to ashes, " wondered Wolfi.

"You are going to smother the fire before the wood burns up," Olin informed them.

"We are going to make a fire in order to smother it?" Andre blurted out.

"Yes. Take plenty of fresh cut branches with green leaves from nearby trees and lay them onto the burning pile as if you want to smother the fire, because that is actually what you very nearly want to do. Take some dirt and small stones and use them to weigh down the green branches so that there is no flame visible and all that you can see is smoke escaping from between the leaves. Then just go on and do other things for several days and let the pile take care of itself."

"We are going to make a fire under a big pile of dead fall wood and after all that

work we are going to smother the fire," the boy named Wolfgang exclaimed in some confusion. "Why start a fire in the first place if we are just going to put it out right away?"

"Because," Olin responded, "it will not put out the fire. Dry wood burns well in open air, as we all know. But also, it will still burn when the air is cut off. This happens much more slowly and in a different way but it still burns. The wood itself contains some oxygen and some more seeps in between the leaves. When wood burns that way it becomes charcoal. One way to look at it is that this fire will burn the smoke out of the wood and when you use the charcoal in the cabins there will be no smoke." The boys were shaking their heads in mystification.

At this point in the explanation Olin felt it necessary to instruct them in a matter of safety. "But, Andre, you are responsible to be sure that there is always fresh airflow into the cabins through the spaces between the logs when a fire has been lit. Never, ever cut off all of the fresh air because charcoal makes carbon monoxide when it burns and that gas can kill you all."

Andre nodded that he would comply with Olin's instructions. "Of course, I will do as you say, but what is oxygen and what is carbon monoxide?" he asked quizzically. "What do they look like and what do they smell like."

Olin pondered the question. He believed that the answer might cause the group to think that he was joking with them when in fact he was completely serious. "Listen," he said, "This is not a joke or a trick. Oxygen and carbon monoxide are two gases. The strange thing is this, and you must simply believe me, both are invisible and both are odorless. You cannot see or smell either one. Yet without oxygen you would die and with carbon monoxide you would die. Nature has the means to make us wonder and this is one of those times."

Andre slumped back against a trunk of a tree trying to absorb it all. "Please stop Olin. We have had enough for now. We will try our best to remember these things but at the moment I am thinking with my stomach. Can we go back and get something to eat?"

The other boys clamored to second the motion as the hike had built up their appetites. Olin nodded agreement and instructed Andre, "Lead the way."

Andre looked about him and but did not start walking back to the cabin. "I do not know which way to go," he admitted with a confused expression. "All the rocks and trees seem to look the same. We did not get here in a straight line because you took us from trees to bushes and this way and that way. Were you trying to get us lost?"

"Yes," Olin declared.

"Why?" asked Andre with some astonishment. All of the boys wore expressions of bewilderment.

"So that you would know what it feels like," Olin informed them. "So that you would realize that it is very easy to get lost among the trees, bushes and boulders."

"Well, OK. Now we know what it feels like," replied Andre. "Let's go back and eat."

"You will eat when you find your way back to the cabin."

"But, you know the way back, don't you?"

"Yes, of course," said Olin. "I picked out landmarks as we went along. They are all trees and they are all boulders but it is always possible to see some difference in

them. A certain color vein of quartz in a boulder, a certain shaped branch on a tree. We are all humans but you must admit we can easily tell who is who. The same with landmarks."

The boys were looking about as he talked and now that their attention was focused they could notice distinct features and characteristics among the trees and boulders. But doing that now was not getting them fed.

"OK, we have learned how to pick out landmarks," the boy named Arthur offered hopefully. "So you are going to take us back to the cabin now, right?"

"No."

"Why not?" asked Andre with some exasperation.

"If the weather was cold or if it were dark then I would. But it is a warm day and there is plenty of daylight left in it. This lesson is important to you. If you got lost out here in bad weather you could die of hypothermia." The boys cringed at the word. It sounded like a horrible disease.

Andre expressed puzzlement. "Why would we get sick just because we got lost?"

"Hypothermia means to die from the cold weather, to freeze to death," Olin explained. He looked at Andre. "Light a fire," he instructed him.

"I can't. I don't have any matches or a magnifying glass. Or flint, a striker and tinder."

"So, if you had become lost out here and a cold night was near, or you had slipped and broken an ankle and could not walk, you would have to just sit down and cry, or freeze, or die?" None of the boys answered but all wore forlorn expressions at the thought of such calamities.

Olin instructed them sternly. "Always have a means to make a fire no matter if it is day or night, warm or cold. If you needed help during daylight a very smoky fire could lead someone to you. At night the flames could be seen for miles. Either way you could be found all the easier and quicker."

He turned towards Benjamin. "If you were at the cabin at night and saw a fire out here somewhere and believed one of the others needed help, what would be the first thing that you would do?"

"Go to help him by walking towards the fire he had made."

"No, that is the second thing."

"I don't know what then would be the first thing to do."

"Once you found him how would you then find your way back to the cabin?" asked Olin. "There would now be two of you lost in the woods at night, if you couldn't."

Benjamin slapped his forehead with the palm of his right hand. "The first thing would be to light a big, long lasting fire somewhere near the cabin and then I could follow the light of that back after I had found whoever was lost or hurt."

The boys were enjoying the reasoning that had entered the conversation.

Olin encouraged them. "Yes, good."

Andre was famished. "OK, OK. We know what to do if someone is lost. Now, lets go back and get some food."

Olin started walking northward and the boys eagerly fell in behind him. "I will tell you later how to find the North Star because I will need to draw a picture for you

illiterates."

"I am not an illiterate," Wolfi exclaimed, "I am a German."

The group arrived back at the log cabin by mid afternoon. They sat about outside in the sun eating cheese, bread, smoked meat and drinking apple cider. Olin told them, "You are all honest and hardworking and you manage to get along with one another. So, besides Andre, there will be the four of you; Donald, Wolfgang, Arthur, Benjamin and one other, Paddy Cronin."

They appeared quite happy to hear their names spoken and to know that Olin was confirming that they were going to be allowed to remain at The Rocks on a permanent basis. They had all agreed to the majority vote system and the fact that Olin would be in complete charge of their task schedules.

Olin explained why Paddy would also join the group. "He is a good hard working man and is learning how to read and write besides. Also, it is best if there is here at The Rocks an older person who can put the whip to you if necessary." The boys flinched at the joking threat.

"That is so that the women of the town don't complain that you are all being allowed to do whatever pleases you because there is nothing that displeases a woman more than a child that is doing what it pleases. There also will be some work later on that will require a strong man such as Paddy."

Olin entered into a fuller explanation of his plans for them and The Rocks. "The Rocks was worthless to other people because they would have to pay grown men full wages to make anything out of it. I don't pay you anything except your feed and bed yet you make flat rocks that can be sold at a good profit. You build log cabins for free and soon you will build a blacksmith shop and a waterwheel, also for free.

You will construct a road from the mill, across The Rocks and over to the road to town. The lack of a road was a great obstacle to other people that gave consideration to buying The Rocks because the paid labor for it would be too costly. This road will allow timber and grain to be brought to the millhouse that you will build. In it we will saw timber into planks and grind grain into flour."

Andre shook his head plaintively at the amount of work that he foresaw to create the road. "We are going to have to move a lot of rocks to build that road."

"Actually, only a very few," replied Olin. "It will be a special kind of road, unlike any that you have ever seen." The boys were mystified but Olin did not explain his comments in regard to the road.

"Also, you will build a wharf so that some of these things can be sent to towns down river in boats that you will make," Olin continued to inform them. All five of the boys sat staring at him with dumbfounded expressions. He waited to see if any of them would ask a question but the sheer magnitude of what he had said had stunned them to silence.

"Before we build such a road there are other things to be done," Olin went on. "My first directions to you are to cut down the oak tree that we had selected during the hike and to begin crafting it into the hub axle for a waterwheel." Their expressions indicated that it seemed like fun to them.

"You must give us some pictures or drawings so that we can see clearly what we



must do," Benjamin suggested to Olin.

"There is a book in the library that provides detailed instructions on the making of a waterwheel," Olin assured them, "and it also includes examples of drawings for the construction of the wheel rim, spokes and water buckets. I will trace these drawings out for you to be guided by. Each spoke, rim section, bucket piece and all other structural timbers will have to be crafted individually and I expect that the task will continue through the winter months inside the heated log cabin. The wood shavings that result will make good clean dry bedding for you to sleep upon."

In the State of New Hampshire there were thousands of waterwheels and there was good money to be earned in both the maintenance and construction of them so he advised the boys to give some thought as they worked as to how they might make tool jigs that would ease the making of parts for additional wheels. His intention was that all of the parts of the wheel would be tied together using bolts and nuts through mortise and tenon joints. He believed that the waterwheel would be extremely useful and profitable and he intended that its method of construction would cause it to be enduring. He had already placed the order for the necessary parts based upon the book's instructions, with Aldo Scalodi at his hardware store. The boys would use the augers, braces and bits that Olin had previously purchased from Henry Macnock's general store to make the holes in the wood pieces to accept the bolts and nuts.

The boys had become eager to begin and as Olin left to return to town, they set out with saws, axes and block and tackle to fell the designated oak tree. They took with them the means of making a fire and immediately began calling notice to landmarks.

## Chapter 16

During an afternoon three weeks later Olin arrived at the log cabin carrying a pair of railroad fireman gloves, a length of light rope, three leather pouches with string ties and a freshly killed cottontail rabbit. The boys at first sight of these things believed that they were going to have roasted rabbit for supper but he informed them that the rabbit was intended for a Peregrine Falcon. At the mention of the bird of prey they gave him their full attention and he gathered them around to explain the plan to them.

"Falcons eat ducks, other birds and rabbits. Mr. Conway has ducks upon a lake he owns and wishes to use a falcon to catch them for him. Peregrine falcons are sometimes called "duck hawks". The falcons can be trained to catch a duck and bring it to their owner in exchange for rabbit meat that has already been skinned and cut up.

Birds, the same as people, will usually take the lazy way about things and the falcon prefers to have the farmer's ready to eat rabbit meat instead of engaging in the time consuming and messy work of plucking a duck."

"It must not be too hard for a falcon to catch a duck on open lake water," Wolfi guessed. "There is nowhere for the ducks to hide."

Olin responded cryptically. "Actually, the ducks do hide right there in the middle of the lake."

"How can they hide on a lake?" asked Donald

"They hide by bunching all together on the water."

"Olin, you are crazy," stated Andre. But with an afterthought he offered a possible means by which the ducks could escape. "Maybe they all dive down under the water until the falcon leaves. If they could hold their breath that long."

Olin shook his head. "A falcon by instinct wants a single target that it can strike in the air and it will not just dive into a group of ducks on the water. It wants to see how its talons, its claws, are going to hit a duck. For example, it would not want the duck facing it because the head and neck would get in the way of a good solid strike.

So it keeps climbing back up in the air and then diving back down towards the bunch of ducks on the lake. If the ducks stay together it rises again and then dives again. It does this over and over trying to get at least one duck to become so frightened that it loses its instinct to bunch with the others. If this does not happen then the falcon gives up and goes off to hunt elsewhere. However, if one of the ducks does lose its nerve and begins to fly away then the falcon will soon have its dinner. It is a lesson in cowardice. The duck that is least brave gets killed.

Once the frightened duck starts flying the falcon drives it towards land and then stoops down in an extremely fast dive and strikes it a blow with its closed talons. The fierce impact of the blow often kills the duck immediately but it does not matter if it is only stunned because it will fall to the ground anyway. The falcon lands next to it and if necessary holds it with its now open talons and bites it through the back of the neck. If that is its meal it will spend time to pluck the feathers out before eating the meat. But if it knows that the owner will give it fresh cut rabbit meat for quick eating then it will give up the duck to the man."

The boys very much enjoyed hearing about the instinctive behavior of falcons

and ducks and eagerly awaited more of the tale.

Olin did not disappoint them, "Now, we are going to catch a falcon with this dead rabbit. When we were hiking through The Rocks and I was telling you about sweet birches and maples, I was also looking for falcon perches and I saw three or four. Each falcon has its own hunting territory, which it will defend against all other falcons. In that territory the bird will have at least one, and usually several, rock perches upon which it sits and looks about for prey such as rabbits and birds. There is not too much deep cover of bushes and brambles in The Rocks and the falcons like that because it is easier for them to catch rabbits without the danger of flying into branches and thorns.

Now, we all are going to hike back through The Rocks and again find one of those falcon perches where we will wait some distance off until the falcon is upon its perch and can see us."

Wolfi interrupted. "But if it sees us it will fly off."

"A falcon will always stay to defend its territory. It will not fly off but it may fly closer to better see what we are. Now in order to catch the falcon we will cut a bunch of branches off some bushes and trees and make a pile for one of you to hide beneath. We will try one end this rope that I have tightly around the middle of the rabbit. Then we will tie the other end of the rope tightly around the wrist of whoever it is that hides under the pile of branches."

There was an immediate clamor as each boy excitedly volunteered to hide under the pile of branches because they assumed that would be the boy that caught the falcon, which was correct.

Olin motioned for them to calm down. "Andre, use short straws to find out who will hide under the branches so that it is done fairly. But don't worry, we are going to catch enough falcons over the weeks that each of you will get a chance.

Now, whoever it is today will put on these railroad fireman's gloves. They are thick leather and have stiff cuffs that will reach almost to your elbows. You will need these so that the falcon can not bite your hand or fingers."

"Why won't it dig into our hand or arms with its talons, that is how it kills ducks and rabbits?" asked Ben apprehensively.

"Because it will be using its talons for something else," answered Olin. "Listen now. When one of you gets under the branches and is hidden he will push the rabbit up through them until we can grab it and set it upon the top of the pile. With the rabbit in full sight of the falcon the rest of us will walk a good distance off and wait. When the falcon sees that we are far enough away so that it is safe for it to fly in and grab the easy meal, it will."

"But it will know that we did not all go, that there is still one person under the branches. Six of us will be at the pile of branches but only five of us will leave, " observed Arthur.

"No, the falcon will not realize that there is still one person unaccounted for because birds can't count," Olin explained. "Birds have no idea whatsoever that there is such a thing as counting one, two, three and so on. They cannot count any better than they can talk. The only reason any of you can count a little and talk is because someone taught you how to do it. No one teaches falcons to count or talk. All the bird will know is

that a group of us were at the pile of branches and then that a group of us left. When it can not see anyone else there it assumes that all of us left, it can not make any other decision."

Olin knew that the boys saw the logic of his explanation and they had to admit to themselves that they had believed without proof something that was impossible, such as birds counting numbers. It was a typical mistake made among people much older than they were.

"Now, if the falcon does not fly to pounce upon the rabbit, the person under the branches should pull down just a little upon the rope tied to the rabbit. This small movement of the rabbit should cause the bird to think that the rabbit will run and hide if it does not pounce soon. The falcon will fly in and land upon the rabbit, sinking in its talons to stop it from escaping. At this moment the one under the branches pulls sharply down upon the rope tied around the rabbit."

"But that will surely scare off the falcon, it will know that someone is under there pulling on the rope!" concluded Wolfi.

"No, the falcon expects the rabbit to fight to save itself as it will not immediately realize that it is dead. The bird will instinctively dig its talons all the deeper into the flesh and muscle of the rabbit and that is what we want it to do, because now the boy under the branches must reach up through them with his free hand and grab the falcon around its legs.

When the falcon sees the gloved hand coming up through the branches it might then try to fly off but it will have some trouble pulling its talons back out of the rabbit's flesh. So, the boy must grab it quickly, but he will have a little time to do it." They could all envision the caught falcon flapping its wings and squawking.

"Once he has grabbed the falcon's legs he should just stay beneath the branches so that the bird can not peck his eyes and the gloves should protect his hands. The rest of us will run in and hood the falcon." He held up the four leather pouch-like hoods with their tie strings. "Once the hood blinds the bird it will instinctively stop fighting. We will tie a light rope about one of its legs, let it get its talons out of the rabbit and get it to perch upon a length of tree branch that we will have ready. And then we will have the bird upon a perch that we can carry back to here. Once here you must skin and slice up the rabbit to feed the falcon. The next day I will come back with a horse rented from Jake Lorrent's livery and ride out to the Conway farm with the bird."

The boys were fidgeting in their eagerness to get started and Andre turned away from them to break a dried twig into five pieces, four of the same length and one short one. He evened up one set of ends so that they all appeared the same and closed his fingers over the other ends to hide the identity of the short piece. The boys crowded in to get a chance to draw the short twig, but then Arthur hung back as he looked over at Olin to see if there was some indication that he should draw first or last.

Olin knew that it made absolutely no difference in which sequence the boys chose to draw the twigs, everyone of them had a 20 percent chance of drawing the short one. Olin looked away so as to not accidentally give a cue to any of them but he gave them an assurance in the meantime. "We will catch more than one falcon over the next few weeks so even if you do not get the short twig today there will be a turn for you underneath the branches on another day."

The third to draw was Arthur and he got the short twig. The enthusiastic group strode off into The Rocks and about twenty minutes later Olin had brought them to an area where he had previously seen a falcon on its rocky perch. The bird was nowhere in sight and the expressions on the boys' faces clouded with disappointment.

Olin reassured them. "The bird will be back. It is usual that they fly about looking for prey and then return to their perch to rest a while if they have no luck."

Some several minutes later the boys were relieved to observe the falcon circle and then land upon its perch after apparently conducting a fruitless hunt. They impulsively hushed each other in their fear that a noise might scare off the falcon.

Olin laughed a little. "You forget that I said that we want the bird to hear and see us. It won't fly off unless we walk over close to its perch." The boys remembered his words in their nervous excitement but they still expected the falcon to flee at the sight of them.

Olin gave them instructions. "Start cutting branches and you can make some noise because we want the bird to know that we are in its territory." He pointed towards a small open area some fifty feet distance that would be viewable by the falcon. "Start stacking the branches in that open spot. Arthur, walk down there swinging the rabbit from your hand on the side towards the bird. When you get there don't lay down. Wait until we get the branches there so that you just sort of disappear as we pile them up."

Each of the boys had been given a skinning knife some days before and they had proudly worn them in leather scabbards upon the rope that they used as belts. It was short work for them to slice off enough branches of small maples that would easily hide Arthur from the view of the falcon. They carried them to where Arthur stood dangling the rabbit and with great sport began bashing them down upon his head and body as he stooped to lie down on the ground.

He was quickly covered and began pushing the rabbit up through his blanket of green leaves. Olin reached down through the branches and raised the rabbit just enough to place it upon the top of the pile. He held it firmly and instructed Arthur, "Pull the rope up short until you feel it go tight. We do not want any slack in it because then the falcon could rise up beyond your reach." Arthur did as instructed.

"Now get into a comfortable position because it might be a while before the bird comes down." He stepped back and surveyed the brush pile to be sure that Arthur was completely hidden from sight.

Then he continued his instructions. "Now, when the falcon lands on the rabbit you probably will not feel any strain on the rope so clear a little of the branches so that you can see the rabbit. When the bird lands count slowly to five to give it time to dig in its talons somewhat. Then pull down sharply on the rope, but only an inch or two. That should cause him to believe the rabbit is trying to escape and dig in further while you reach up and grab his legs. Push your grabbing hand up now so that we can be sure you have a clear reach."

Arthur pushed his free hand up through the branches and the boys saw the fireman's leather glove. Olin turned to look towards the falcon and noted that it was still upon its perch and peering in their direction.

"Very good," he said. "Now let the rest of us walk back towards that pile of

boulders that has bushes in among them." He motioned towards a spot some thirty feet away. "When we get there hide behind boulders and bushes so that the bird can't see us and will think that we have left the area."

They were soon all hidden and quiet, but breathless with anticipation. The minutes passed by but the falcon stayed upon its rocky perch peering intently in the direction of the pile of branches that Arthur was hiding beneath. It seemed to be concentrating keenly upon the rabbit but for some reason it held its position.

Olin's mind searched for some cause that might be preventing the bird from flying to such easy food because even if it had recently eaten its instinct would still be to take possession of the rabbit for a later meal. Perhaps the library book that contained the instructions for such a catching was simply wrong and that the method actually would not result in the successful capture of a falcon.

The boys were beginning to fidget in their uncomfortable crouching positions. "I have to pee," Wolfi whispered to no one in particular.

Another minute passed as the falcon remained upon its perch.

"Why did you have to say that?" Andre whispered. "Now I have to pee."

Olin continued to ponder the unexplained situation. He worried that perhaps the bird could see Arthur from its vantage point so he thought of walking back down to the pile of branches and circling it to determine if there was a breach in the camouflage. As he cast his gaze towards Arthur's hiding place he was filled with cold, stark horror.

"Oh, my God! Oh, my God!" The words burst from his mouth.

The urgency in his voice terrified the hidden boys as they looked all about themselves in an attempt to discern the danger that Olin must be seeing.

"What? What is it?" Andre almost screamed out the questions.

There was a large rock some thirty feet beyond Arthur and peering over this was the head of a male black bear, its nostrils flaring and sniffing the air that was filled with the scent of the dead rabbit. The falcon had been able to observe the bear's approach and had sensibly remained upon its perch. Olin realized that the rabbit was tied to Arthur's wrist and if the bear reached it and pulled it from the pile of branches that the boy would be hauled into sight. Almost certainly the bear would conclude that Arthur was attempting to steal the rabbit and it would fly into a rage and kill him within seconds.

Olin was on his feet immediately and running towards the branch pile and the bear, shouting and waving his arms to attract the brute's attention even as he quickly stooped to pick up a couple of fist sized stones. As he continued to run stumbling over rocks and deadfall branches towards the bear he threw the first rock which landed a foot to the left of the bear's head and ricocheted off the large boulder the beast was peering over.

When Olin arrived stumbling and panting at the pile of branches covering Arthur he stopped, took better aim and heaved the second rock which struck the bear on the right shoulder. This caused it to emit a ghastly roar and rise up upon its hind feet; its huge front paws raking the air as its lips curled back in a vicious snarl, revealing horrific fangs. The height and size of the animal absolutely appalled Olin but his only thought was to keep the bear upright on its back legs, because as long as it remained so it would not advance. He knew that bears only run upon all four feet and real danger

would exist if it dropped down and rushed him. He stooped and reached for several more rocks, and continued to hurl them at the bear in order to keep it enraged and rearing upward.

He could hear the yelling boys running up behind him and a barrage of several rocks arched through the air towards the brutish animal prompting it to roar fiercely in both anger and confusion at the boisterous mob.

Olin unsheathed his knife, grabbed the rabbit from the top of the branches and sliced through the rope that tied it to Arthur's wrist.

"Andre," he yelled, "pull Arthur out of there and then all of you run like hell!"

Beneath the pile of branches Arthur had not the slightest idea of the cause of the commotion and when Olin had grasped the rabbit and cut the rope tied to his wrist he thought perhaps it was the falcon tugging upon the bait. But, when he pulled the rope it came easily down to him without rabbit or bird at the end of it. Amid the shouting he heard another sound that he could not interpret. "What the hell is happening?" he yelled to the others in bewilderment and rising concern.

The branches were rapidly pulled off him and as he stood up facing the roaring bear the terrifying sudden knowledge of his impending doom riveted him to the spot. Andre reached out and grabbed his right arm and jerked him backward into a stumbling retreat.

Olin glanced towards the other boys to assure that all of them were moving out of danger. He noted that they seemed not able to take their eyes off the frenzied animal and because of that they were stumbling backwards over rocks and bushes that slowed their progress towards safety.

"Don't look at the bear!" he yelled. "Turn and run like hell. Run! Run!"

He moved off to the left holding the rabbit up in full view of the bear in an attempt to draw the animal's attention away from the boys. The bear's instinct was to kill something; anything, and it began to move from behind the large boulder and in Olin's direction. He knew that the bear could cover ten feet in one leap if it dropped back onto all four feet so he took quick aim and threw the rabbit directly at the bear's face striking it upon its right cheek. He prayed that the odor of the rabbit would for at least a moment seize the bear's attention.

He turned and ran as fast as he could over the rocks and through the brambles in a direction away from both the bear and the retreating boys, because if the bear charged after him he did not want to lead it to his companions. When he had gone some forty feet he glanced back and observed that the bear had dropped to all four feet and it was nosing into the bushes in search of the rabbit.

"Keep running!" he yelled to the boys "Don't stop until you get to the cabin!" The boys did not intend to do otherwise.

When they reached the cabin in an exhausted state they all slumped to the ground panting heavily. A while later the rest of them heard strange muffled sounds issuing from Ben as he lay face down on the earth. His body periodically shuddered as if with tremors and convulsions, raising concerns among the others that perhaps his heart was giving out due to the exhausting run. The sounds became louder and more frequent and finally the others realized that he was laughing in a psychologically

defensive response to the terror he had so recently experienced. He raised his head and the sight of his flushed face, his tear filled eyes and his laughing mouth elicited uproarious guffaws from the others. There was a much-needed release of tension for them all.

"Well, at least now we know how to bait a trap to catch a bear," Andre joked as he and the others continued to relish their safe escape from what appeared to have been certain doom.

Over the next several weeks they set snare traps for cottontail rabbits and using them for bait they successfully captured four Peregrine falcons, being ever watchful for bears. Two of the birds were sold to Mr. Conway. The third falcon was given free to the farmer in exchange for his training of the fourth which would be kept as a river duck hunter for the boys, who promptly named the bird, Wings.

The boys often captured rabbits, both for Wings and themselves. The pelts were dried and salted for later sale to Mrs. Hanna Gray, the seamstress who fashioned them into muffs and shoulder capes. The woman was eager to do business with the boys as she was in need of a constant supply of animal skins. When Elias Howe had patented the sewing machine in 1846 she immediately saw the value of the invention and her quick ownership of one allowed her to reduce the labor hours, and thus the cost, of her sewn garments, and drive her competition out of business.

When the blueberries had come into season the boys combed the ten square miles of The Rocks for the bushes of the wild fruits, filling numerous paper sacks with the harvest and delivering them to Mr. Macnock's store. Olin did not have to tell them more than once that the bears would be searching out the blueberries also and that they should always have one of the boys remain on sentry duty as the others picked the low lying bushes.



## Chapter 17

On Wednesday afternoon, August 2, 1854, Mr. Martinmon entered the train barn to speak to Olin in regard to a request from Mayor Hastings, which was that Olin should visit the mayor's office at his first chance because the official had something to ask of him.

"What does he want to ask?" Olin queried Mr. Martinmon

Mr. Martinmon responded, "I don't know but he said that you would tell me soon enough after the meeting."

Olin smiled mischievously, "I will tell you for the sake of a dollar."

Mr. Martinmon grunted, "You will tell me or I will shave your week's pay by a dollar. As it is you can go see him now and not lose any pay for your time gone from the barn. I am sure the Railroad Company would wish us to satisfy the wishes of the mayor."

Olin smilingly answered, "Well, if I am on pay during this visit to the good mayor I had best take a good long time to assure that I fully understand his question, and much longer than that to be sure that I give a good answer."

Mr. Martinmon grumped, "Damn it Olin, go and come back. It is that simple. And stop by my office upon your return so that I do not have to go looking under cur dogs and such to find you." They left the barn together, the man on the way to his office and the fifteen-year-old lad on the way to the mayor's office.

Olin's mind full of curiosity as to the mayor's desire to speak to him. He had for some time felt a need to converse with the mayor upon a sensitive subject but he had demurred from requesting a meeting, as it would have appeared odd and attention getting. Therefore he found it providential that the mayor had now some reason to request his presence and because he wished to speak at length with the mayor he had put into Martinmon's mind the thought that some time might pass prior to his return. At the town hall he entered the mayor's outer office and greeted the secretary Mrs. Pentahelm.

Looking up from her work and smiled at him. "You may go right in Olin; the mayor has been awaiting you."

Olin smiled brightly at the woman and remarked, "That is a fine design upon your dress, Madam. You must counsel my aunt Henphra in the matters of style."

"Why, thank you Olin, and please give my best regards to your aunt."

"I will of a certainty, Madam."

He stepped into Mayor Hastings' office and observed the official standing beside a wooden office table that had upon it sheets of paper, some with print and some with construction drawings. The mayor greeted Olin warmly as he shook his hand and informed him, "The town desires to construct a wooden bridge across Hartish Creek. The Hartish family has maintained a ferry crossing there for two generations but old man Hartish is getting on in years. In addition, because of increased commerce and population a ferry is no longer an efficient means of fording goods, animals and citizens.

Mr. Hartish has agreed to give to the town the land for both footings of a bridge and a road right of way upon his land in return for his being allowed to collect a modest

toll from the users, enough only to assure that he and his wife may pass their days with some comfort and security." Hastings paused momentarily as he shuffled through the papers on the table and then set two bridge construction drawings side by side.

"Now, Olin," he continued, "I have searched about the town for someone that is knowledgeable upon the subject of bridge construction but to our misfortune there is no one with such training. However, a number of the townsmen suggested that perhaps with your knowledge of technical matters, which you demonstrate to us so proficiently, you might be able to provide some advice."

Olin shrugged his shoulders slightly, "Well, there is no harm done by your asking or my looking into the matter."

The mayor pointed at one of the drawings, "Good. Now here on the left is the design of Mr. Ithiel Town of New Haven, Connecticut. Mr. Town has a patent upon this design and if we wish to use it we must pay a royalty of one dollar per foot of bridge. The design is named the "Plank-Lattice Truss" and you see here on this sheet the general design of such a bridge." He paused to allow Olin time to observe the drawing at greater length.

When Olin was satisfied that he comprehended the basic design of such a bridge he asked the mayor, "Is there is a second design to be considered?"

"Yes," the man answered as he pointed at another bridge drawing, "and it also is a patented design that of course brings with it the demand for royalties. It is named the "Burr Truss" design and Theodore Burr owns the patent."

Olin studied the drawing for some minutes before answering, "The arch is a strong support structure but it is not necessarily well used in this design."

The mayor seemed relieved that Olin appeared knowledgeable in such matters because even if he were only a youth he was still the only person in the town that could offer advice to him. "Good, good, Olin. Now, I ask you to mull these two designs over for some several days and then advise me as to which of them I should select."

Olin raised his voice somewhat, enough to be heard in the outer office, "To be truthful I believe if you give me some minutes here in your office I may come to a conclusion before I leave and you will be all the more speedily informed." As he spoke he had walked to the office door and quietly closed it. Returning to the table covered with drawings he said in a subdued voice, "Actually, Sir, I can tell you right now how to select."

The mayor was surprised at Olin's arrival at a conclusion. "You can decide that quickly? Then which one?"

Olin smiled, "Neither. Reject them both."

The mayor was stunned, "What the hell are you saying? If the town is to have a usable covered bridge I must select the one or the other, do I not?"

Olin glanced towards the office door and by reflex the mayor also looked toward it as an expression of curiosity crossed the man's face. Hastings wondered why Olin had closed the door and why he now looked to assure that it was secured.

Olin walked around the mayor's desk and standing at the man's side continued in a low voice, "Sir, I believe that in the best interests of the town you should avoid paying patent royalty fees to anyone. And besides that Sir, are there not others that

have eyes upon your position as mayor?"

The mayor's eyes widened with anxious interest.

Olin suggested, "They would raise a hearty yell that you threw away good town money as payment of royalties to strangers. It would never matter if the bridge was a grand success, you would be the mayor that wasted the town's money and the bridge would be called by your opponents "Hastings' Folly" forever and one day more than that."

The mayor slumped dejectedly into his chair. "You are correct, Olin. That is exactly what would happen because that is what I would do if I were one of them. The bastards! How is it that you, a mere lad, know so much about politics?"

"I do not know anything about politics but I do know the method of thinking of some men hereabouts with ambitions for the chair you are sitting in. A general store makes a good listening place because many people have need to pass through it, and while there is no need to talk politics while making their purchases they do so anyway. If I thought you a poor mayor I would keep my mouth shut at this moment. But there are many far worse than you could ever possibly be and they are out there, hungry for political power in order to serve their own selfish ends."

The mayor stared at Olin intently and he wondered how it was that a boy was speaking to him in such a fashion and that he was allowing him to do so, in fact desiring to hear yet more from the lips of the youth.

Olin was waiting to discover if the mayor would take offense with his impertinence and as the moments passed in silence he sensed that the man was not affronted. He continued, "This is my town. You are the mayor of it but it is still my town. And for each of the good citizens hereabout it is their town also. I own property in this town and I will stand and protect it as will the farmers and merchants protect theirs. But strangers might think me only a boy and thus an easy target for their greed, and if there is not an honest mayor and sheriff to stand with me I might possibly lose everything someday. I need you and Sheriff Tramell, and Mr. Perkins, and Mr. Macnock, ...and you know all the others."

The mayor raised a hand to indicate that he fully understood and that it was not necessary to continue. "Your message is clear and obviously sensible. But you did something that has raised my curiosity; you closed my office door. Is there something that I should know about my secretary, Mrs. Pentahelm?"

"Yes." Olin answered, "She has a brother, a Mr. Stackton."

"Oh, I was not aware of that. Where does he reside and what is his profession?"

"He resides principally upon his sailing ship at sea and his profession is despicable. He is a slave runner. He captures them in Africa and then returns to Cuba and some southern cities for their sale."

The mayor was aghast and struggled to find his words. "Are... are you...are you sure of this information?"

"Yes. They were both born in Boston and that is where he first put to sea. He has a ruthless and inhuman nature and that brought him to the attention of investors who were aware that there were fortunes to be made in slave running and they needed a ship's captain that could be a beast of a master, and if necessary, a murderer. He has

not disappointed them in the least."

"How do you know this?" asked the horrified mayor.

"Some months ago there were two visitors from Boston, one having returned there and the other going on to Montreal, Canada. The gentleman resident of Boston attended college with Mr. Stackton and has seen the black depth of the man's soul. When the other investors approached him to place some funds in the evil business he learned of Mr. Stackton's involvement and declined the offer without stating his reasons. In private he is an abolitionist but in public he is silent upon the question of slavery, being quite involved in the Underground Railroad and not wanting that to be known. I tell you this in the belief that you are an abolitionist as I have been told that is so."

The Mayor answered forthrightly, "Yes, I am against slavery as it is a sin before the eyes of God."

"Your openness in stating your convictions explains the presence of Mrs. Pentahelm," Olin informed him.

"I do not understand what you mean? How did the visitor from Boston know of Mrs. Pentahelm being here in any event?"

"During his visit he remarked to my aunt that he desired to make the acquaintance of the mayor and the school master as that was his habit when he traveled about since the business that he owns supplies pencils, pens, ink and paper to town and school administrations. My aunt told him that he only need come to see Mrs. Pentahelm to request an appointment with you. At the sound of the name he recoiled in disgust. He stated that she is the wife of another evil man."

The mayor shook his head in doubt. "But Mrs. Pentahelm is a widow, her husband having been a first mate upon a steamer ship lost in a storm at sea."

"She told you only a half-truth. Her husband is a first mate indeed, but he performs his duties aboard Mr. Stackton's slave ship and he is very much alive, I regret to say."

The mayor was confounded "Why is she here and not in Boston? Why did she come here?"

"Her husband is at sea ten months out of the year and they have no children, praise God's wisdom in that regard. She might as well be here those ten months as much as any other place. Her motivation is also that she is working to preserve the wealth that her husband and brother derive from slave running. She does depart from here two winter months out of the year, does she not?"

"Why, yes. To visit her sister in Rochester, New York, she tells me."

"She does have a sister and she lives on her husband's slave plantation near Richmond, Virginia. That is where Mrs. Pentahelm spends her two months leave from this town."

The mayor was becoming agitated but the revelations. "But, why, Olin? Why is she here?"

Olin spoke in a low voice. "To discover the names of people that help escaped slaves move north to Canada by means of the Underground Railroad. When all are known to her she will depart to Virginia for good. Soon after that many homes, businesses and farms in our community will be set afire in the dark of night. The crop

fields will be burned and the livestock wantonly slaughtered both in the pastures and in the barns. When it is seen that it is the property of only the abolitionists that is destroyed the message will be starkly clear. If a person helps a runaway slave they will risk everything that they own and hold dear. The slavers' intent is to break a substantial link in the chain of the places of sanctuary along the length of the Underground Railroad, to open a gap that can not be crossed over during the cover of a single night."

"My God!" gasped the mayor. "I will dismiss her immediately!"

"You must not. They would then act immediately against the abolitionists they already know about. Yourself among them."

The mayor winced at these last words."

Olin comforted him; "You and they are safe at the moment only because she believes that there are more names to be learned. And she is correct in that assumption."

The mayor was anguished at the thought that he himself had brought the woman into the town hall. "When she put forward her resume I found her academic record and references to be impressive and impeccable. My previous secretary, the widow Sneider, may God have the strength to wrestle with her cantankerous and meddling soul, had recently gone to her grave and there was no other person, man or woman, who presented themselves with the proper qualifications. I welcomed Mrs. Pentahelm as a Godsend."

Olin observed, "She had no need to lie about her schooling because I understand, and she apparently displays the fact, that she is well educated. I think that perhaps her northern references are actually people of social rank that have sympathy or business with southern slaveholders. Did you query them?"

The mayor's face sagged in dejection as he contemplated the consequence of his negligence to more fully evaluate the woman's background. "No. I was so pleased to have providence bring forth at just the necessary time an excellent candidate for the employment that I would not have done a thing that might potentially annoy or insult her. I accepted her at face value."

Olin asked, "How many days after widow Sneider's passing did she appear at your door?"

"I am not sure, but perhaps within a week. I felt so relieved that I could fill the position within so short a time."

Olin now suspected something, "As the saying goes "she was waiting in the wings". That means that there is a person in this town that knew of her existence and availability and communicated with her to announce that a fortuitous circumstance had arisen with the passing of your previous secretary. The death of widow Sneider was sudden was it not?"

"Yes, she simply passed in her sleep one night." The mayor crossed himself.

Olin nodded. "Good. I do not mean good that she died, I mean good, we may be able to discover the name of the person that advised Mrs. Pentahelm of the event."

The mayor's expression was blank. He wished Olin would cease talking in what appeared to be riddles. "How?" he asked.

"It is best that I do not tell you, it would require that I reveal a name to you and

that would not be wise, and I do not mean an offense to your ability to maintain a confidence. It is simply best that I hold my tongue."

The mayor moaned, "This is horror. We are trapped."

Olin comforted him. "Not in the least. Be calm, Sir."

The mayor's lower jaw hung down in consternation causing his mouth to be agape. "You have told me just this minute of terrible things and you say now that I should be calm. Are you mad?"

"No. Remember back just a moment ago when I said that they would attack when they have nothing more to gain in regard to the learning of identities of those people that actively support the Underground Railroad. As long as they believe that there is more information to be gathered in support of their evil cause they will not strike a blow. They want the trap full of rabbits when they spring it."

The mayor simply stared at Olin with worried helplessness.

"Sir, she knows that you are an abolitionist and has surely given them your name. So, if you speak near her hearing of the abolition of slavery she learns nothing new about yourself. Now, you must slowly let slip the information that a very significant meeting of abolitionists will take place near here some time in the future."

"I know of no such meeting."

"There won't be any such meeting," Olin stated.

"Damn it Olin, is it your intent to drive me insane? With your help or without it I feel that I am on my way there. Speak to me in small words and short sentences so that I might understand what the hell you are trying to tell me."

Olin raised his hand to caution the mayor not to speak in too loud of a voice. "There will be no meeting of abolitionists. She must nevertheless be made to think that there will be one. And to believe that very important, influential, rich and powerful abolitionists will attend from hundreds of miles around and with representatives from all the major cities.

A major topic supposedly would be extensive new funding for those that participate in the operation of the Underground Railroad. Often people must modify their homes to include secret hiding places for the escaped Negroes. Also, there is usually the need to procure food and clothing for them."

The mayor nodded his incipient understanding.

"The thought of such a large and extremely phenomenal gathering of abolitionists," continued Olin, "would make the slave traders mouths water. If they could spy upon that meeting they would gain enormous amounts of information that could be used to harass, harm and decimate the abolitionist movement. That is why no such meeting should ever take place. But while the slave traders are made to await such a meeting they will not attack for fear of scaring off a good size warren of antislavery rabbits."

He waited for the mayor's response. The man remained slumped into his chair, his mouth agape.

Olin kept his voice low. "Such a momentous gathering would presumably require a considerable amount of time to organize and prepare for, perhaps as much as year. So during that time the abolitionists would be safe from attack. And as the end of that

year of planning approached we could devise some situation, perhaps a pretended major disagreement on a particular issue between two noteworthy attendees, and thus the meeting is delayed, possibly for another year or more. The point is to keep creating reasons that cause delays to the scheduling of the meeting. We simply drag out the process, the act, for the longest possible time."

The mayor could only manage to nod his head in agreement and comprehension.

Olin advised him, "We should return to this subject at a later date, your secretary must be wondering why we have been behind closed doors so long a time."

The mayor sat upright in his chair but still could not summon speech.

Olin raised his voice and returned to the subject of bridges as he stepped towards the door. "Sir, I have spent a good half-hour reading over these bridge plans and I believe that I thoroughly understand them." He turned the doorknob and allowed the door to open only a crack. He then continued on the subject of bridges. "I advise against paying royalties for the bridge designs. There are different and perhaps better ways to build a span across Hartish creek."

The mayor shook his head vigorously, as if to clear it after awakening from a daze, which was nearly true. "Well, the reason I had welcomed the agents of the bridge designers and considered paying royalties is that there was no one about town that knew how to design a bridge."

"There is a way to avoid paying royalties," Olin assured him, "I recommend a third design to you, one that is not patented because it can not be patented. It is the road over arch type bridge and the design has existed for thousands of years; no one can claim a patent upon an antiquity.

Now the strength of the arch is nothing unless there are substantial abutments upon which the ends of the bridge can rest and in that regard I need your leave to have a discussion with Stephan Horan the stonemason. An abutment would have to be designed that spreads the total load of the bridge and its traffic over a large area thus reducing the pressure per unit of square area. Very many bridges have failed not in their structure but due to the backward movement of their loaded abutments into the surrounding earth. The bridges then simply fell down between them and into the rivers.

There must be excavation of earth on each bank of Hartish Creek in order to sink the abutments so that the bridge does not rise overly high on its arch. Also the arch will not be a continuous element, it will consist of what is called "tangent and radial trussing" which, you may believe it or not, will actually be large triangles. And of course there will be the matter of the reward."

The mayor sat staring at Olin, a half smile of astonishment upon his lips, because just perhaps the lad could get a bridge constructed. "Olin, you have my leave to talk to whomever you wish about any aspect of this bridge. But what do you mean by a reward?"

Olin nodded acceptance of the assignment. "It is necessary to discuss matters with other tradesmen and I thank you for your permission to do that. There will be a need for many holes to be drilled for a number of trunnels and as it happens I am about to soon employ a man who is a driller by trade to work for me at The Rocks.

As to the reward, I have no intention of constructing a bridge for the town only to have vandals burn it down as such fools have done in many other places for the pure evil sport of it. Therefore the town must agree to post signs and a reward of \$500 dollars for information leading to the conviction of any vandals that put a torch to the structure. The only way to stop them is to assure them that they will be apprehended and they will know that for \$500 their own mothers would turn them in to the sheriff."

The mayor sat forward in his chair. "I believe that the matter of the reward can be arraigned, as you are correct that we must safeguard the bridge."

Olin nodded. "Good. I will take the actions necessary with the businessmen that must be a part of this endeavor."

The Mayor said to Olin, "I meant to ask you where you learned to speak like a person much senior than your years."

Olin said, "I read a lot that has been written by both men and women that are my seniors."

"Well, then do not stop the reading as it appears to have a very beneficial effect upon you. Now I must change the subject to another matter. A Mr. Elliott Segall has recently visited my office and has cast certain aspersions upon the activities of your lads at the Rocks. He believes that satanic rituals are being performed at all hours of the night and that he has seen shadowy figures dancing around fires that burn continuously.

Now, clearly I believe that you efforts at the Rocks must have some good purpose based upon my knowledge of you personally but the man is causing some apprehension among a few citizens. Perhaps you could inform me of your innocent activities at the Rocks so that I might set their minds at ease."

Olin smiled and nodded assent, "I am aware of Elliott Segall and also his writings in the newspaper. He is living proof that small thoughts occupy small minds. We can believe that Nature never blunders; when she makes a fool it is a complete fool.

I will have a respected member of the community provide information to you as regards the activities at the Rocks and at the same time make a request that you do not inform Elliott Segall of what you learn. I wish his fuse to burn until it finds the powder charge. To learn of the activities at the Rocks you may speak either to my lawyer Mr. Hiram, or to Principal O'Connell. They will relate to you the total of my intentions for the Rocks. Subsequent to that discussion you will find yourself able to inform others of the citizens that you have received a satisfactory explanation upon the matter and that they should take your word that all is well."

The mayor could not argue that an explanation from the barrister or the school principal would be other than satisfactory. "That is completely acceptable to me. Now I urge you Godspeed in the matter of the bridge."

They shook hands and Olin left the mayor's office.

Olin decided that Mr. Martinmon could wait a while longer so he slowly walked back through town on the way to the Rocks to see how the boys were getting on and to take some time to mull over the discussion with the mayor. He also wanted to make another stop and arriving at the telegraph office he went in to talk with the young operator, Stanley Kiowski.

"Hello, Stan. Burning up the wires as usual?" He employed the standard joke for



telegraph operators.

The second generation Russian who was the telegraph operator was perhaps twenty years of age, tall and lanky with thin blond hair and blue eyes. "Hey, Olin. How are your useless rocks doing?"

Olin leaned on the station counter and making sure that no one was within hearing range he asked, "The railroad causes you to keep a copy of all the messages you send out and those that you receive also, does it not?"

"Yes. That is so that if someone claims a message was not correctly sent or received we can look back upon the matter and settle the issue. Sometimes money values are misread and people become somewhat angry over such things."

"Do you remember when the widow Sneider passed away?"

"Certainly. I mean I knew of it."

Olin raised his right hand and brushed his own cheek as if to shoo off a fly that had alighted there. Kiowski tensed slightly and cast a glance about the deserted office. He then performed the same cheek brushing action to indicate that he understood that the subject pertained to the Underground Railroad.

In a soft low voice Olin instructed him, "Look back through the records of that day and the next few. The message may have gone to Richmond, Virginia, and then again maybe not. It probably would not openly indicate the widow's passing and it might also seem extremely commonplace. Perhaps something such as "miss you and wish you were here", or some other innocent statement."

Kiowski gave a quick nod of understanding. They said good-bye to each other and Olin continued on his way. Olin had reasoned that whoever had alerted Mrs. Pentahelm to the unexpected secretarial vacancy at the mayor's office would not have used the much slower mail system because the position could have been filled at any moment and thus expediency was required. A telegram would have been the obvious choice. He spent the remainder of the afternoon at the Rocks after deciding that it would be soon enough if he waited until the next day to speak with Mr. Martinmon.

Early the next morning he stopped at Martinmon's office to reveal to him the subject of his discussion with the mayor. The man was not in a jocular mood. The Frenchman demanded, "Where the hell were you all of yesterday afternoon? I'm going to cut you pay several hours, you insolent pup."

"Well, perhaps it is not wise for me to do business with a despotic hothead," Olin declared as he turned to leave.

The word "business" captured Martinmon's full attention. "You get your damn ass back in here or I will snap you like a twig," he threatened. Olin stepped back through the doorway of the office.

"What business do you mean?" demanded Martinmon.

"Creosote."

Martinmon was befuddled. He knew that one type of creosote was used as a medication. "You can get that from Lewis' pharmacy. Have you a stomach infection or bronchitis?"

Olin said, "The creosote you are thinking of is distilled from the tar of Beachwood and is intended for medical needs. The creosote that I am talking about is distilled from

coal tar and the English have long used it to preserve wood and timbers."

A light of comprehension lit in Martinmon's eyes. "Ah, yes. The Limeys use it to treat their railroad ties to make them last against the damp ground. There has been talk of using it here in America also. I do not know if it has ever been done. Down in Lowell, Massachusetts, in 48 I think, they used something else on canal timbers to preserve them."

"Mercuric chloride," the lad informed the man.

"Olin, you read too damn much. Where the hell do you get words like those?"

"Mr. Trinkem's newspaper generally, as he carries the reports of technical advances in business for the sake of any businessmen hereabouts that might think it wise to be aware of modern achievements, present company excluded apparently."

"Are you making fun of me?" Martinmon angrily demanded.

Olin ignored the question. "The mayor wishes a bridge to be constructed over Hartish Creek and I told him that I would design such a bridge."

Martinmon stared in astonishment but could not find any words.

Olin continued, "Some of the timbers near stream level and perhaps all of them should receive a treatment to prevent rot over years of time, much the same as railroad ties. Have you any knowledge that the Railroad Company has arranged to procure or manufacture creosote for such a purpose?"

The man found his tongue, "You told him that you would design a bridge over Hartish Creek?"

"Yes."

"Can you?"

"Yes. Actually, the design exists. I need only see that it is fulfilled."

"I think that you have gone too far."

"No I haven't. Do you want to be a part of the business or not and do you know anything about coal tar creosote."

"Why don't you use that mercuric stuff like they did down in Lowell?"

"Have you ever heard the phrase, 'mad as a hatter'?"

"Yes, of course I have and I am beginning to think that you are."

"Since 1837," Olin explained, "there has been some scientists that suspect that the hatter's use of a hot compound of mercury to cure the felt used for hats allows them to breathe in the fumes of it and that causes an illness with many bad effects such as trembling, fantasies and failed sight. Even though the stories may not be true it simply would not be a good idea to take a chance and have any local people work with the compound."

"What would you have me do as regards creosote?" asked Martinmon.

Olin smiled pleasantly and said, "Sir, perhaps you could make an inquiry to your higher office, to someone that you know and trust, and see if there is a manufacturer of creosote in this country. And if yes, what is the price and recommended method of use. You and I then could become procurement agents for the creosote on behalf of the town, taking our agent's fees in the process."

At the thought of cash flowing into his pocket Martinmon's expression brightened and he stated, "Olin, I am going to march straight home and beat my wife with a stick."

"Why?"

"Because she has given me four sons, all as thick as mud in their thinking, and not one of your sort."

"I am confident that you are joking about the beating and because I wish you only happiness I pray to the Almighty that he will salve your disappointment in the boys by revealing that they are not actually of your seed." Olin was out the door and speedily down the street before the full implication of his remarks registered upon Martinmon's mind.

## Chapter 18

On Sunday, August 20, 1854, Olin encountered by chance Mr. Elliott Segall upon the main street of the town. The man recognized Olin because someone had previously pointed him out. Segall held aloft the small bible that he always carried with him and burst out vocally, "Ah-ha, the Demon Master of The Rocks! You dare to show your face on Sunday, the Lord's Day? May the cross of Christ drive you back to your despicable 6,660 acres of the Devil's terrain!"

"Good morning, Sir. I take from the tone and substance of your comment that you are Mr. Elliot Segall," Olin responded, "Is it not a fine and beautiful day for good people to be about the business of fellowship."

"Fellowship? Be gone you tool of the Devil, and take your Aunt Henphra with you for her sacrilegious criticism of my writings which are guided by the hand of the Lord!" Segall vehemently cried out.

"I will give my Aunt Henphra your kindest regards, Sir. But she may speak as she pleases just as you may and I might say that you speak a lot," Olin stated with calmness and a smile.

"I speak the word of the Lord who made woman in order to provide man a servant. I do not have to suffer the slanderous words of chattel, nor of a man in league with evil spirits. Beware! The day will arrive when you are all brought to proper justice," fumed Segall.

"Is your plan that it would be by hanging, or perhaps the more festive burning at the stake?" Olin asked still with a wry smile upon his face.

"The purging of evil for the sake of the devout citizens has been done before by the guardians of the faith. And what has gone before may come again unless you heathens repent. Exodus xxii, 18, instructs us, "Thou shalt not suffer a witch to live", " threatened Segall.

"It is not perfectly clear to me if you stand against or with the Devil," Olin said dryly.

"It is you that are the Devil's helpmate," scowled Segall.

"In your mind you have determined who and what I am yet this is our first meeting," Olin observed, "You see evil everywhere and in everything. You would believe that it is the evil intent of red roses to have an alluring aroma only so as to cause a person to lean towards the flower and become stuck with a thorn. Well, I would believe that you are like a cactus with a multitude of spikes to keep away anyone that might approach you in friendship. I wish you well but I will keep my distance. Because I believe in God I wish you to fare well in your search for God also."

"I have no need of the Devil's followers to give me leave to do God's work!" shouted Segall, "And you should remind your aunt that her vile words against my sanctified writings, and her lack of comprehension of the workings of the Lord and the law, are clear justification of the fact that females are not allowed to vote at the polls, sit upon trial juries, to own property or do a business, as all of these things are the habitat of men," he finished in a fuming manner as he abruptly turned away and ended the confrontation.

As the days passed the weather remained pleasant and on most days the large doors of the train barn were left wide open. A locomotive had been undergoing replacement of the rusted steam pipes within the boiler and Olin had participated in the extensive disassembly of the firebox and the engine controls to allow access to the defective elements. He stepped down from the engineer's cab when he saw the telegraph operator Stanley Kiowski approaching up the street to the barn.

Moving away from the other laborers that were working on the engine he waited until Kiowski entered. Stanley brushed the fingers of his right hand across his cheek. Olin did the same to indicate that it was all right to be seen together talking on a private matter because they were well outside the hearing range of the other workers. Stanley informed him, "A message was sent two days before the widow passed away. The message had a strange address that raised my curiosity. It was Mechanicsville, Virginia, and isn't that a strange name for a place? Usually places are named after people, not a trade."

Olin kept a leash on his emerging impatience.

Stanley continued. "The message read, "A door has opened," and isn't that an odd message to send someone in a town with the odd name, Mechanicsville? It was for a Mr. Stackton. It was sent by Babette Michaud."

"Good work and be sure that you both keep your mouths shut upon this matter."

Olin turned and started walking back towards the locomotive as Stanley accompanied him out of curiosity for the large machine. They stood chatting idly for some minutes about the ongoing repairs as two other laborers continued their work inside the engineer's cab.

Suddenly Olin felt a large strong hand grasp the nape of his neck and a powerful compressive force, which he believed was certain to snap his vertebrae, shoved his head upwards causing him to have to stand on the tips of his toes. At the same instant a loud "Arrrrrrrrggghhhh" reverberated in his left ear.

Out of the corner of his left eye he saw Kiowski stumbling back a step or two, his eyes bulging in their sockets with surprise and fright.

Upon hearing the loud growl the two laborers in the cab of the locomotive turned to stare and froze in position at the sight of Olin's red face that was twisted by creases of pain. One of the laborers regained mobility, grabbed the arm of the other and pulled him out of the far side of the cab and down to crouch behind the engine so as to not risk any involvement in what they believed to be murderous mayhem.

Mr. Martinmon mouthed angrily, "Call my sweet children bastards, will you?" as he continued to hold Olin in extension, his face red with the effort of lifting him nearly off the floor with one hand. Olin could not find his voice with his neck under such great stress but his heart began to beat again upon learning that it was Martinmon.

Mr. Martinmon heaved him away with a strong shove and he stumbled up against the wheel of the locomotive. He turned and saw a satisfied grin on Martinmon's face.

"Made you almost crap in your pants, didn't I? That will teach you some respect." Martinmon turned to Stanley and demanded in an angry voice, "What the hell are you doing here, telegraph boy? Get the hell out of here."

Kiowski spun on his heel and raced out of the barn and down the street with his

long skinny legs pumping and his arms flailing the air.

Martinmon turned back to Olin and said, "It's possible to purchase supplies of creosote."

"How is it applied to the timbers?" Olin was rubbing the back of his aching neck.

"Soaking tubs long enough to accept the timbers must be constructed. The tubs are then filled somewhat with creosote and the logs placed in them and rolled now and then to give them a good soak over several days. Then they are lifted up to drip and dry above the tub. However, they say that if possible the creosote in the tubs should be heated and the logs allowed to soak in it. When the creosote is allowed to cool they say that the contracting gases in the wood will draw the fluid in."

"How much will we need?" asked Olin. "Did they say anything about retention?"

"How is it that you know the right words in these things? Yes, they talked about something called "retention". They talk like a bunch of Dutchmen or Frenchies. They said we would need 100 kilograms per cubic meter. Do you know what that means?"

Olin nodded his head. "Yes, I can convert it to pounds per cubic foot. What about penetration?"

"Retention, penetration! How do you know what to ask? I didn't. They just told me these things," fumed Martinmon.

"It is only logical. What about penetration?"

"Fifteen millimeters. Do you know what that means?"

Olin mentally computed the metric to the English system conversion. "Six tenths of an inch is close enough."

Martinmon stared at him in wonder of his ability to make the conversion so quickly. "How do you know that?"

Olin was still rubbing the back of his neck. "Some of the parts on the trains are made in metric dimensions. It is not difficult to figure out."

Martinmon grumbled, "The damn fools. Why don't they pick one or the other set of measurements and be done with it? How will you know how much creosote is needed?"

"Once we determine the length and diameter of the timbers I can then calculate the volume of a fifteen-millimeter shell about them. With that and knowing the number of logs I can calculate how much creosote we will require. What is the lifetime of the treatment?"

"How did you know that there would be such a thing as "lifetime"?"

"It is only logical."

"Twelve years. Then they should be brush coated again."

"Good."

"Saints alive," Martinmon sighed.

"What?"

"You."

"What about me?"

"How the hell do you do it?"

"Do what?"

"Figure these things out so easily."

"I read a lot. It teaches me how to comprehend these things."

"I have never been able to get my boys to read a book."

Olin wisely held his tongue.

Martinmon took several steps towards Olin until he was face to face with him.

Olin stood his ground and maintained a stoic expression but his heart was pounding at the man's close approach.

Martinmon lowered his voice to a deep growl; "I am going to only say this once."

Olin's eyes were locked to Martinmon's as he waited for the man to finish what he was going to say.

Martinmon continued, "If you ever tell anyone that I said it I really will snap your neck." Olin strove to not even blink.

"I really do wish that you were my son." And with that the man abruptly turned and tramped out of the train barn.

From behind the locomotive in a hushed tone, "Holy saints alive, Louie! Did you hear that?"

During the month of September the boys made good progress in creating a water raceway for the overshot waterwheel that they were constructing. They had removed rocks and earth for a channel six feet wide and four feet deep that began at the riverbank some distance upstream from the falls, ran inland forty feet and then turned down alongside the river. It ended at a place just above the position where the water wheel would be installed. The stonemason Stephan Horan had constructed a sluice gate of stone and mortar with a wooden control door to modulate the flow of water onto the wheel once it was in place below the gate.

The day arrived that the raceway and the control gate were finished. The boys soon were to open the dam of earth and rocks at the riverside that still held back the water. They, along with Olin and Horan, gathered at the dam and using long poles as they stood on each side of the dry channel began to pry loose the rocks of the barrier. Once a small stream of water began to flow into the channel it made it all the easier to pry away the rest of the rocks and earth as the force of the flowing water added its energy to the accomplishment of the task.

The boys yelled joyously and ran down along the sides of the channel to keep up with the head of water as it flowed towards the sluice gate that was still closed. The flowing water washed up against the wooden control gate and the entire channel filled to a depth of four feet, at which height it was level with the river water at the top of the falls and the water ceased its inward flow.

Straws were drawn in order to determine who would be the first to open the wooden sluice gate and allow the water to cascade thirty feet downward. Wolfi drew the short straw and happily grasped the control lever. Yelling, "One, two, three," he pulled it causing the gate to rise in its metal runner slots. A sheet of water flowed out in a graceful arc and it descended to splash onto the rocks thirty feet below. The boys happily scrambled down the rocky slope and stepped into the spray of the falling water, being careful to stay out of the main stream because they intuitively knew it would possess a crushing downward force.

Olin and Horan had remained above and as they watched the romping and

yelling boys below the stonemason said, "It is going to work, your water wheel. And not too long in the future you will have a saw and gristmill in operation. That will be an enormous responsibility for a group of young boys like you. I have had some discussions with other of the townsmen and they suggest that you and we meet in order to think over the implications of such a venture."

Olin and Horan had done considerable commerce in the flat stones that had been sheared off the large boulders with fires and both had realized large profits as a result. Olin was not in the least surprised by Horan's suggestion having from the first anticipated that the townsmen would become interested in investing in the Rocks once it appeared that it might turn a profit.

"You may tell them that it was always my intention to ask if they had some interest in this venture. Please have them determine a day and time and I will be quite happy to meet with them. At a minimum I would suggest the doctor, the school principal, the mayor, the storeowners Mr. Macnock, Mr. Scalodi and Mr. Lewis, the bank president and the livery owner. One way or the other I will need to do business with those people. My lawyer, Mr. Hiram, will be there to advise me legally and of course you should be there."

Horan nodded agreement and said, "In business one can use all the good advice that it is possible to receive. The White Mountain Timber Company has gone bankrupt due to its owner having speculated in the gold market and lost his entire fortune. The story is that a man approached him in regard to a newly found gold mine in Vermont which had gold sparkling in the walls of the recently dug shaft. He visited the mine and just as he had been told to expect there was gold showing in the quartz rock of the walls. He was allowed to pry out some bits of it with a knife in order that he might have it assayed independently in order to prove the fact of it. He took the sample to the assayer in Burlington and was extremely pleased when the test results established that it was indeed of high purity.

He thereupon negotiated to buy the entire rights to the mine even though the seller urged him to take in partners in order to share any possible risk because it would not be certain how far the run of gold might extend. That only caused him all the more to want to purchase the mine rights before the seller talked to any other potential investors. He bought the mine outright for a large sum and immediately registered his deed and claim.

He then invested in all the men and machinery necessary to mine and bring out the ore by the ton, the steam engine driven machinery to crush it and then the building of sluice channels to run it down with water. It was watching your sluice water that caused the man's endeavors to come to mind."

Olin guessed, "Because you told me that the man went bankrupt I would think that there was very little gold in the quartz vein."

Horan nodded affirmatively saying, "After several months of operation there was absolutely no gold recovered." Horan paused to hear if there would be any comment from the lad.

Olin thought for some moments and made the observation, "If a man wanted gold to appear in the quartz walls of a mine that in fact had no gold, he could load up a



musket with a good charge of powder, add some gold dust as shot and then fire the gun at the wall. That would probably embed the gold dust into the small cracks and crevices of the quartz. He could do that with several powder loads and less than a hundred dollars of gold dust with the result that there would appear to be an extensive run of gold in the walls. He could easily wash away any residual burnt powder to keep the wall clear and to remove any odor. Also, if he wished a man to purchase this false mine from him quickly he need only suggest that there might be other possible buyers as that would trigger greed in the buyer who would demand an immediate sale."

Horan gazed at the lad with a knowing look, "I was certain that you would guess how the fraud was carried off and now Mr. Perkins owes me five dollars from a wager on it. He should have known better than to bet against you."

"Well, unless you give me two and a half dollars of it for having brought you a profit, I will tell Mr. Perkins that you told me how it was done and he will believe it because he would want to win the bet," Olin replied with a smile.

Mr. Horan reached out to shake Olin's hand saying, "Well done, let us agree with a handshake."

Olin stuffed both of his hands into his pants pockets and replied, "Having shaken hands with you on a prior occasion, I remember that there was enough squeeze for three of four future hand shakes, so please take a credit against that grasp. Also Sir, when we meet with the townsmen you should request that Mr. Elliot Segall be in attendance."

"What the hell for?"

"As a trained accountant he was employed by the White Mountain Timber Company. You have informed me that the company is bankrupt so Mr. Segall must be unemployed at this time."

"Who the hell cares?"

"I do."

"For what reason?" asked the astonished Horan. "The man speaks only evil of you and the boys and he writes trash for the newspaper. He hates women, Negroes, Catholics, Jews, abolitionists, the poor and quite possibly Holstein cows because their hides mix black and white. Editor Trinkem should refuse to print such vile words and accusations."

"No. You can not convert a man simply by silencing him."

"Convert him to what?"

"The human race, I should hope," answered Olin. "Now Sir, I am going down there and take a good dousing with the others to celebrate the opening of the sluice gate."

## Chapter 19

Fall arrived and the trees began to display hues of red, yellow and amber that created marvelously colored foliage. The harvest of apples and corn had been completed and other crops were waiting their turn. The large pumpkins were ready for lifting, some to be cooked and canned for later making of pies, others to be eaten as they were brought in from the fields.

On Tuesday September 26, 1854, Mr. Martinmon entered the train barn with a newspaper in his hand and a distraught look upon his face. He walked over to Olin and said in anger and sadness, "They let all the women and children drown."

Olin had no idea what the reason for the horrific statement was and asked, "What?"

The man shook the newspaper in the air in a fury. "The paddle wheel steamship "Arctic" was struck by the steamer "Vesta" six days ago. Of 233 passengers only 87 survived. All of them men! Not a single woman or child was saved. That is not possible unless the men pushed them out of the way so that they could have the lifeboats!"

Olin took the newspaper and began reading the story of the disaster. The Arctic had been the largest side-wheel steamer afloat and was considered to be indestructible. During heavy fog she had been struck in the bow by the steamer Vesta. The Vesta had been constructed with three watertight bulkheads and remained with two intact compartments. The Arctic had been constructed with a single hold that ran from bow to stern and thus was guaranteed to sink once she had been holed.

As the Arctic began to go down the men pushed women and children aside in order to commandeer the lifeboats for themselves. Sixty-five of the eighty-seven men that survived were crewmembers and thus had no family aboard.

It was a horrible accident and revealed all the bestiality that men were capable of when faced with immediate danger. Olin made a point to himself to never underestimate the evil that groups of ignorant or panicked men were capable of exhibiting. In 1850 the U.S. Navy had abolished flogging as a form of punishment for troublesome seamen, but he thought that the crew of the Arctic should not be flogged but instead hung for murder. He was distressed to read that there would be no criminal charges lodged against the crewmembers, it being held that their public disgrace would be adequate punishment.

On Sunday October 8, 1854, Olin was to meet the 1:00 PM train at the station as he expected a Mr. Zygmunt Rombalski to arrive on it. The man was traveling from the stone quarries in Quincy, Massachusetts and they had agreed by mail upon the meeting time and date. Olin had rented a one-horse dray from Jake Lorrent's livery in order to convey the man along with his luggage and tools to the recently erected log cabin at The Rocks.

Zygmunt Rombalski was a quarry man whose specialty was rock drilling. He was employed at quarries during the warm weather months but had to search for other work when the quarry ceased operation in the winter. Olin had seen his advertisement of services in the local newspaper and noting that the principle one was rock drilling he had communicated with the man by letter. Glad for the chance to stay in one location all winter Rombalski had been amenable to Olin's offer by letter of free room and board

and three dollars per month. In return he would supervise Paddy Cronin, Andre and the other boys in the use of his drills. The tools of Rombalski's trade included drill braces for turning of the steel cylindrical bits that were tipped with black diamonds. These tips were carbonados, so called due to their black carbonous appearance.

The train arrived at 12:58 PM. and as Olin scanned the disembarking passengers for the driller he observed a tall lean man with a full beard and head of black hair step down from the train. He was about thirty years old and from the description given in the letter Olin knew that it was Mr. Rombalski. The man reached back and grasped a travel bag and set it down on the platform. Reaching back a second time he pulled a heavy wooden tool chest towards him, lifted it off the train landing and set it also upon the platform. Olin approached the man and asked if he were Zygmunt Rombalski.

The man responded in perfect English with a trace of a European accent, "Yes, Good Day. You must be Olin." He reached out to shake hands.

Olin helped the man carry his bag and toolbox to the dray and after loading them the two climbed to the wooden seat and Olin lightly snapped the reins upon the horse's back to begin the journey to The Rocks. Andre met the dray when they arrived and helped carry Zygmunt's bag and box to the cabin. Olin was gratified to observe that there was no evidence of trash or garbage anywhere about the area. As they entered the cabin the aroma of beef roasting upon a spit over the fire in the hearth filled the air. Zygmunt looked at the meat with his appetite showing plainly upon his face. Andre sliced off pieces for the three of them using a large sharp knife and speared the meat sections with a two-prong fork to set them onto plates. He sliced a loaf of bread and placed portions on the plates also. Zygmunt sat down upon the floor and ravenously ate the hot tasty beef.

After they had consumed the meat and had dried apples slices for desert Olin discussed drilling methods with Zygmunt and Andre. The boys would rely upon Zygmunt's experience and allow him to select the boulders to be attacked and the line of attack. That meant that Zygmunt would inspect all the candidate boulders for seams such as quartz veins or pre-existing fracture lines. He would prepare the drills and then Paddy, Andre and other of the boys would drill downward into the stone. Zygmunt's experience would determine the separation distance between each drill hole and their depth.

At a commercial quarry such drill holes could be utilized in two possible ways. The first was to have laborers drive conical shaped steel wedges down into the holes. As the steel wedges were driven ever deeper the stress of steel against stone would cause the stone to shear along the stress concentration line that had been established by the sequence of drill holes. The second method was to fill the holes with gunpowder and fuse them to explode. The resultant stress of the explosion would shear the granite along the line of holes.

Olin did not plan to employ either of those two methods during the winter. Instead he would keep the holes full of water as freezing weather approached. The pressure that would develop in them, as the water solidified, would apply a relentless stress to finally shear the granite. This method was not used at large quarries because they closed down for the winter. However, Zygmunt had some considerable experience with

it because farmers frequently employed his services to help remove massive boulders from plowable fields when they were too large to be hauled out by a team of horses or mules. After he had drilled the holes and been paid, he left. The farmer then let them crack during the winter and towed the pieces out in the early springtime.

"Can you make use of the services of a ringer?" Olin asked Zygmunt.

"If the fault lines in a boulder are not obvious then a ringer can give clues to the best locations to drill. Do you have a ringer working for you?"

"No, he works for the railroad but we can have his services after hours."

"That is good because it might greatly increase the progress of splitting the boulders. At a glance when we arrived I could see that there will be no end to the work as this is the largest collection of huge rocks that I have ever seen."

"In the warmer weather I plan to use another method of cracking the boulders," said Olin. "I will forge iron rods of a diameter that will just allow them to be easily hammered into the drilled holes. Then the boys will build wood fires to heat the rods to cause them to expand and crack the boulders with a minimum of time and effort."

Zygmunt nodded affirmatively. "I have seen that done at the quarries when they were shy of gun powder to blast or lacked laborers to pound conical iron rods."

Olin stood up in preparation of leaving and turned to Andre. "Listen, the boys still answer to you but all should recognize that Zygmunt is twice your ages and much more experienced in many matters. Take his counsel whenever he offers it." Turning to Zygmunt he said, "Offer your counsel only when you feel that there is a true need and never in any way undermine Andre's leadership of the boys."

They both nodded affirmatively and Olin stepped out the door of the cabin and mounted the dray in order to return it to Jake Lorrent.

He planned to continue his employment at the train maintenance barn and to live at the library during that winter. He desired as much experience as possible in working hot iron at the forge because that could lead to the useful occupation of blacksmithing for both himself and the others at the Rocks. The boys had made a considerable amount of charcoal by burning deadfall tree branches in the absence of air so he anticipated having adequate fuel from his land for a forge.

Two days later on October 10, 1854, Oscar Fingal O'Flahertie Wills Wilde was born in Dublin.

On Wednesday, November 8, 1854, the large doors of the train barn were open because a wagonload of coal was being delivered for use in the forge. The deliveryman was laboring with his shovel to pitch the black shiny chunks of fuel from the wagon bed into the forge coal bin while Olin worked at blacksmithing. Sheriff Joel Tramell rode his horse in through the open entry, reined up a short distance from the forge and dismounted.

"Good day, Sheriff. What might bring you here today?" Olin hoped that it was not news that the thug Jarad Hortmuller had escaped from the Concord jail.

"Hello, Olin." The sheriff approached the forge and warmed his hands by the heat of the burning coals. He remained silent for several moments, as if searching for words. Finally he stated the reason for his visit. "There is a District Judge named Reginald P. Quilstadt. He will hold court in the town hall on November 30, some three weeks hence.

You have been ordered to appear before the court and to answer to accusations of crimes," he unhappily informed him.

Olin was taken aback at the news. Had someone discovered information regarding his activities in the Underground Railroad? Was this an attempt by slavers to apply the onerous Fugitive Slave Law? Was this somehow the work of Mrs. Pentahelm because of his discussions with the mayor and his investigation of telegraph messages? Had someone told of his staying in the back room of the library and was that an infraction of some ordinance? Had Elliot Segall managed to convince the authorities that satanic rituals were taking place at The Rocks?

With all of these possibilities swirling about in his mind he finally did the sensible thing and asked, "Why?"

"The town council members have brought a suit against you," the sheriff glumly informed him.

"Why?" Olin asked again.

The sheriff reached into the inside breast pocket of his thick winter coat and pulled out a folded sheet of paper that he handed to Olin who began to read it.

"By the order of the District Judge, the Honorable Reginald P. Quilstadt, the court will be brought to order at 8:00 AM, November 30, 1854, at the Town Hall, with the Sergeant of Arms Sheriff J. Tramell, required to maintain the silence of any spectators and to remand before the District Court the person of Olin T. Collins, the defendant in this matter, to stand for trial upon charges which has been duly brought by the members of the town council, these charges being namely, fraud and deception, grand larceny, and false taking of a tract of real estate called by some "The Rocks", by having represented it to be essentially worthless in order to criminally set a low value upon it, but having known some information not shared to the council men. Namely that significant value resided within the property to a much greater extent than revealed, a detestable crime against civil government if proven, and deserving of severe punishment by the court, notwithstanding the fact that the person so accused is a minor, who is to be incarcerated at the town jail until brought before the bench, if he fails to post a bond of one hundred dollars." Olin did not read any further.

Tramell apologized. "I am sorry to bring such bad news. The mayor and myself attempted to sway the councilmen against such an action but they believe that their reputations have been stained and that they have been made to look like fools before the people of the town. I also stated to Judge Quilstadt that he would be well advised to first hear your side of the story before he signed a warrant for your arrest but he brushed my recommendation aside. He assumes that the words of adult councilmen will certainly win out over those of a boy. The Mayor and I together have paid a hundred dollar bond on your behalf so you are free until the trial."

"You have my word that I shall not flee," said Olin, "and you may ask Mr. Perkins to pay over one hundred dollars to you from my bank account."

"Perhaps you should best ask Will Hiram to represent you at the trial," advised Tramell.

"There is no need. I will act "pro se"." Curious as to the meaning of "pro bono" Olin had done some research into the use of Latin by the courts.

The sheriff's face displayed surprise. "Having been about the courts a number of years I know the meaning of "pro se" but I am astonished that you do. How can you possibly expect to represent yourself?"

"If the case is lost it must not be by Mr. Will Hiram. His name and career would be destroyed because it was he that represented me to the Town Council Members during the purchase of The Rocks. He would be double damned if the case does not go in our favor."

"But, Olin, you will have to argue law against the prosecuting attorney, recently retained from a well know law firm in Concord."

"I will argue nothing with him," vowed Olin, "as it will be as if he did not exist. I will argue with the jury although they will not realize it. Sheriff, while I did not anticipate a trial over the matter of The Rocks, I have always thought that at some point the councilmen would complain that I should have paid a higher price per acre once they saw that the land could turn a profit. I have developed my response in my mind over these past months and I will simply use it in court."

"You can't act pro se. You are a minor," the sheriff stated.

"I won't be at the time of the trial. I have thought that through also."

The sheriff clearly could make no sense of the last remarks. "You are going to age several years in several weeks? That stuns my mind."

Olin did not offer an explanation. "You will learn what I mean at the time of the trial."

The sheriff removed his broad brimmed hat, ran his hand through his thin blond hair as he reflected in thought and then replaced his hat. "I will tell you quite simply, I do not hold out an iota of hope for you to win the case."

Olin shrugged slightly. "That does not matter because the case will not be won upon hope, but instead upon reason."

The sheriff reached out and shook Olin's hand and then swung up onto his mount. "Eight o'clock in the morning of November 30th," he reminded Olin as he reined the horse around and rode out of the train barn.

Over the next several weeks the townspeople talked of little else except the upcoming trial, there never having been a trial by jury in the town within their memory. Many visited the town hall to volunteer for jury duty in the hopes of being a part of the momentous event but Judge Quilstadt ordered that Sheriff Trammell conduct a drawing of lots to choose twelve jurymen, women not being legally permitted to serve upon juries.

As soon as the names were known and even before they were impaneled Olin's peers voted and selected as the jury foreman a person who attended church every Sunday without fail, did not shrink back from the battle against unbelievers, was educated, a man of letters as evidenced by his writings in the newspaper, and one whom held similar views to the majority of the jurymen as regards the proper place of women and Negro slaves in society, and who clearly did not neglect his responsibility to champion those views.

Mr. Elliot Segall accepted the honor with a faint attempt at humbleness. After all he believed it his due, and the jurymen were altogether pleased with their mature vision in selecting such an intrepid foreman. Shortly thereafter he held sway before a crowd of

townspeople upon the steps of the town hall and holding his bible aloft he gave them assurances. "I vehemently vow to bring the matter to the just conclusion that everybody expects and the town deserves, through the grace of God and by the jury's honest hard work in hearing and solemnly weighing the evidence that will so clearly prove the guilt of the defendant."

During the evening of Tuesday, November 14, 1854, Olin arrived at the office of Editor John Trinkem, the man having paid a penny to a small boy to carry a message to Olin that they should meet. "Olin, I have here the writing of Mr. Elliot Segall that he has submitted for inclusion in the next edition of the paper. His apparent wish is to convict and sentence you from the front page of my paper. I am loath to provide the vehicle for his unscrupulous ravings and his dereliction of his duties as an impartial jurymen."

"Well, you must print it," Olin stated flatly. "You have no other choice. All men, including that one, have the right to speak freely in voice and in print."

"Olin, this pains me. I will write a counter editorial to refute his malicious assertions."

"Sir, if it pleases you, write only that you have made an offer to allow me the means to provide a rebuttal in print and I replied "I will speak in court.""

The editor was obviously puzzled. "Why do you refuse the offer?"

"It is a matter of keeping a poker face."

"I take it you mean that you do not want to show your hand."

"That is correct," Olin confirmed. "Another saying is "don't complain and don't explain"."

Trinkem sat leaning slightly forward and staring intently into Olin's face, searching for something that the lad had not yet voiced. Finally he reached a conclusion. "You do not fear this trial. But I can not perceive why you do not."

At this moment the door of the newspaper office opened and the lawyer Will Hiram, entered along with a blast of cold air from the frigid night. "Ah Olin, it is fortunate that you are here, we need to rehearse the strategy of your response to the foul charges brought against you."

"We should not," Olin answered.

Trinkem and Hiram were confounded and simply stared at him, both at a loss for words. "Why not?" Hiram finally managed to ask.

"The battle never evolves the way that one anticipates. If I practice statements now I will trip over them when the situation arises that the prosecution attacks from an unexpected direction. In the abstract, I might fire cannon when infantry is required, I might whip up a cavalry charge when the marksman's rifle would suffice. I need only the overall sense of what I plan to say, leaving my mind clear to parry the prosecution in their points."

Time passed in silence except for the ticking of the Seth Thomas mantel clock. Hiram had remained standing with his coat half off in anticipation of sitting and discussing the salient issues for some time into the evening. Now, in essence he was being told that his presence was not required that evening and that he might as well slip back into his coat and leave. "Please allow us to council you," he implored Olin.

"No." Olin stood up and looking at Trinkem, reiterated, "Print Segall's words and

the fact that I will reply only in court. It suits my plan that the greatest number of spectators be present and if they wish to hear my words then they must attend." He walked to the door as he pulled his scarf snugly around his neck. "I thank you both deeply for your offers of assistance." He opened the door and stepped out into the frigid night air.

Judy. Her name swirled through his mind. He felt a surging urgency in his desire to speak with her so he walked towards Macnock's store. Arriving there he sat with her in the warmth of Macnock's living room and they discussed many things over several hours but not once was the impending trial mentioned.



## Chapter 20

At The Rocks, the log cabin the boys had built was serving them well during the cold weather. They had constructed bunk style beds out of pine lumber and at Olin's insistence aired their bedding upon racks in the sunlight each dry day to prevent lice, fleas and other pests.

Both Paddy Cronin and Zygmunt Rombalski were now integrated members of the group and had been hard at work drilling holes in the mammoth boulders. There had already been freezing nights and the expansion pressure of the water in these holes as it turned to ice had cracked off large sections of stone. The boys were very much amazed to go to sleep at night before the freeze and awake the next morning to see the massive boulders split, as if by helpful spirits, during darkness.

One evening after supper in the cabin Zygmunt remarked to the boys in an eerie voice, "Maybe there are spirits about at night and they are splitting the huge stones. Ooooh! Maybe it is "Pan"! He is not human, you know." His tone scared the boys and they became concerned that there was indeed an evil spirit named Pan that roamed nearby during their sleeping hours.

"Who is Pan?" Benjamin asked with evident concern.

"Listen and I will tell you," Zygmunt replied. "But first be sure the bar is down across the door, for who knows what might enter?" Arthur leapt towards the door to recheck the bar position even though everybody in the room could easily see that it was securely in place.

The cooking fire was burning a little low and as Wolfi reached for some split wood to feed it Zygmunt cautioned him. "No, lad. Let it burn low. The inhuman Pan might see a bright fire through the spaces between the logs and come this way." Wolfi released the wood as if it were red hot.

Apprehension grew within the boys' minds that something evil might be peering in at them. "Ah, you are just trying to scare us by making up stories," Andre complained hopefully. "There are no evil spirits out there."

Paddy Cronin rose to his feet. "Well I will take the lantern and go check just to be sure." He lifted the bar, opened the door and stepped outside. He turned and instructed them adamantly. "Be sure to bar the door behind me though." He paused in the doorway for a moment. "Listen lads, if there is something out there and it gets a good hold upon me," he said as an afterthought, "and it starts to rip me apart and you hear me screaming for my life as my blood flows from my veins, well you best keep the door barred. There is no sense it getting the lot of you, also."

As the door closed behind him Arthur rushed to put the bar back in place.

Paddy's parting words made the boys glad that Zygmunt was still with them.

"Paddy is quite large," the man from Poland noted, "so if Pan gets a hold of him he might be able to fight him off without too much bloodshed."

The boys shuddered perceptibly. Donald picked up a hand axe that he had been using to form parts of the waterwheel and then he squatted upon his bunk with the sharp tool securely clutched to his chest for ready availability if the need should arise.

Zygmunt continued the tale of Pan. "A long, long time ago, there were the god

Hermes and his wife Dryope. They lived in a very remote wilderness place. Sort of like The Rocks here, but on a mountaintop." At the thought that the place resembled The Rocks the four boys sitting on the floor edged closer together.

"Now Hermes and Dryope had a son born to them," Zygmunt told them.

"See," Andre said with some relief of tension, "this is not really a scary story. There is nothing horrible about a baby boy."

Zygmunt stared at them, one by one, slowly shifting his half-closed eyes to each in turn. Suddenly he cocked his head as if to listen to something outside. "Did you hear that?" he asked tensely.

The boy's eyes widened. "No." they said in uneasy unison.

Zygmunt relaxed slightly. "Perhaps it was just the wind." They were relaxed by the suggestion that it was merely the innocent wind. "But then again," Zygmunt said in a strong but hushed tone of voice, "the sound Pan makes sometimes sounds like the wind."

Without realizing it the boys had been continuing to edge into a yet tighter group as they sat on the floor. Misery loves company.

"Well, I could continue with the tale, or legend of Pan," said Zygmunt, "but I am not sure if you all are brave enough to hear it."

Still attempting to reassure the boys Andre exclaimed gamely, "It is the story of a baby boy. We are not afraid to hear it."

"All right then," Zygmunt replied in a rasping, whispering voice, "you will hear all the horrid details of it." The boys did not like the sound of that. In a voice so low that the boys had to lean forward to hear he went on with the tale. "When he was born and his mother first saw him..."

They leaned in closer as his voice was falling off further in volume.

"She screamed!" he screeched out in a loud voice.

The boys recoiled away from him in apprehension.

"And she screamed again!" he continued loudly. "And she cried out, "Oh, my God, he is horrible!"" Zygmunt's voice had been rising in volume with each successive word and by the time he said "horrible" he was shouting. The boys cringed tightly together, clear fright and anxiety showing upon their faces. Suddenly Zygmunt cocked his head to listen again. "Shush. I think that I heard something. Listen! Listen! Don't you hear it?"

The boys were straining with all their might to hear whatever might be out in the dark among the boulders and trees. "I have to pee," Benjamin said in a low plaintive voice.

"Perhaps it is Paddy," Andre offered hopefully, "and he is making some noise out there."

"If Pan does not already have him," said Zygmunt, his voice full of dread. They listened a while longer. Nothing more was heard.

"Well," the man finally concluded, "maybe whatever it was has passed by. Did anyone see any shadows through the log joints?"

"No!" in tense unison from the boys. But as they looked towards the walls the flickering flames of the fire caused shifting variations in the illumination. Was that all that

is was, or was there in fact shadows from without?

In a slow story telling voice Zygmunt continued the tale of Pan. "Well, the reason the mother screamed was this. The head and face of the boy was quite nice to look upon. His chest and his arms were well formed, healthy pink skin, you see." He paused. "But!" his voice rose sharply.

Benjamin was trembling and mumbling under his breath as he clutched Wolfi, "Oh no, oh no, oh no." Wolfi did not push him away.

"But!" said Zygmunt once again. He paused to shudder. The boys followed suit.

"Then her gaze fell upon the boy's legs and feet." His voice was rising in volume again. "She screamed at what she saw!

Zygmunt rose to his feet. "She set him upon a blanket and moved away from him," he said as he stepped backwards himself. "Oh, what a horrible thing she had seen! Horrible, horrible, horrible!"

The boys cried out with a tone of terrified suspense, "What, what, what?"

"His legs and feet were those of a goat!" yelled Zygmunt.

"Whaaaaaat?" in horrified and trembling voices from the boys.

"He was half animal!" Zygmunt informed them with a contorted look of revulsion upon his face. "At the top he was human. At the bottom he was a goat with fur and hooves instead of toes!"

Arthur rose to his feet and with uncontrolled jerky motions of his legs he danced the dance of the frightened and in a terrified voice he exclaimed, "I hear it, I hear it!"

Andre jumped to his feet. "What do you hear?"

"It sounds like a kind of very strange music!" Arthur was shuddering, shaking.

Zygmunt had a look of fear upon his face. "Music? Oh my God, did you say music?"

"Yes, oh yes!" confirmed Arthur in great agitation.

"I hear it too!" Andre shivered out the words. "Like far away music. It is a strange musical sound. I have never heard such sounds before!"

Zygmunt sighed in hopelessness. "He is near about," he said in resignation to their impending doom. Seeing that Zygmunt had given up all hope, the level of the boys' terror increased dramatically. The music became louder and now all the boys could hear it. It was composed of a mysterious, wafting, resonant series of tones.

"I know what makes the sound!" a dejected Zygmunt exclaimed. "You see, Pan's mother took him into the woods, like these hereabouts, and left him. Because he was half goat he could eat grass and he lived and he grew. Over the years he became seven feet tall and as strong as a bull." The image of the great size of the half man - half beast struck terror into the hearts of the boys.

The man from Poland continued the tale. "In the woods Pan happened to find some hollow reeds and he noticed that if he took a piece of it and blocked one end and blew his goat's breath over the other that it made a musical sound. If he used different lengths of reeds he got different musical notes. So he put seven reeds side by side but of different lengths. When he blew across these he could make strange but beautiful musical sounds and he called it a "Pan flute".

The boys were listening intently to the eerie music, which seemed to be

approaching ever closer.

"Now, just so long as he was playing the flute," Zygmunt went on, "it caused him to remain calm and peaceful, but when he stopped he became mad at the fact that his momma had left him alone in the woods! And he would fly into terrible rages and wish to stomp someone to death with his heavy goat hooves! So watch out if the music stops!"

The music became louder because it was coming closer. It was a kind of music that the boys had never before experienced. They had heard fiddles, guitars and trumpets but none of those could make the resonant, haunting sounds that now filled their ears. They huddled together and wondered how a monster could make such mellow and harmonious music. It was delightful to the ear and they could well imagine that the sweet melodious flute could soothe a savage beast. Within a few moments more they sensed that the sound was very near the cabin.

Zygmunt lowered his voice and in a hushed, confidential tone informed them, "It is possible to make a test to determine if Pan is near about." The boys were frozen with apprehension as they waited for Zygmunt to reveal the nature of the test.

"Do you see my extra shirt near my cot?" he asked. They did.

"You see that it covers something. Under that shirt is a clear glass jar full of shelled and pickled hardboiled eggs. I love pickled eggs so I bought some from Mr. Macnock this afternoon and I covered the jar of them with my shirt, as I did not want you little thieves to see and eat them when I was away. Macnock makes them by first boiling the eggs, after which the shells are peeled off and the eggs are placed into the glass jar. Then the vinegar and pickling spices are added. The eggs will then stay beautifully white and wholesome for months."

"Does Pan like pickled eggs?" asked Andre.

Zygmunt shook his head slightly. "No, but the test for Pan being close lies with those white pickled eggs. I told you that Pan ate grass, which is green, and the test of Pan's nearness is that his presence can cause white boiled eggs to turn green!"

"Whaaaaaaaat?" from the huddled boys.

Zygmunt slowly rose and stepped over to where his shirt covered the jar of pickled eggs. In apparent fear and dread of what he might see he began to lift the shirt as he peered beneath it in the low flickering light of the fire. He jumped back in horror and screamed. "May sweet God have mercy upon us all! They are green! They are green!" He had held onto the shirt as he recoiled away from the cot, and now revealed in the firelight was a clear glass jar of brilliantly shiny hardboiled eggs, and these had a vile, luminescent green color.

The boys could not believe their eyes, which bulged out of their sockets at the sight of the seemingly malevolent and glowing objects. The jar, which was not quite full of the eggs, had tipped slightly when Zygmunt pulled his shirt away and some of the slick orbs shifted position in the pickling liquid within it and caused the boys to think that they were somehow alive and striving to be released from their confinement. The boys were shrieking and their legs were convulsively pumping up and down in dread as they huddled together in terror. As their screaming voices quieted they became aware of yet another horrible thing. The haunting music was now clearly just the other side of the door.

Donald shouted in fright. "Oh no, oh no! He is here! He is at the cabin!"

They had no gun but Andre grabbed up the long knife that they used for cutting bread and prepared to defend the boys with his very life.

Seeing that Zygmunt cried out to dissuade him. "No, my brave lad put the knife down. If he sees you with it, that will only make him all the madder. Listen, lads. Listen close to what I say. I am going to lift up the bar and swing open the door and leap upon him and fight him to the death. It will take a man to do it and I am willing to give my life for you if the need be as you are my friends. Now stand back lads, stand back."

The boys were huddled at the rear of the cabin and could not stand any further back. They were shaking with trepidation.

Zygmunt said in a tense voice, "Alright now lads, on the count of three I will open the door. One...two...three!" He slid the bar away and swung open the door.

And there stood Paddy with a Pan flute of reeds in his hands. He raised it to his lips and played a few more notes, though not necessarily in an expert fashion as Zygmunt had tried to teach him. He then greeted the boys. "Hello lads. How do you like my flute playing?" he jokingly asked.

Immediately that it dawned upon them that it had been a trick to scare them, the five together yelled an attack call, "Aaaaaarrggg!" and rushed across the room to knock Zygmunt into Paddy and then crush them both to the ground with the weight of their bodies. Benjamin leapt up and ran off some distance to pee and for the first time at The Rocks the rules regarding hygiene were broken. The rest of the boys pounded the men's backs and arms repeatedly with their fists, both laughing and crying in relief of their tension.

After they all had re-entered the cabin and slumped down due to the exhaustion of their emotions Andre glanced over at the jar of green hardboiled eggs. Seeing that, Zygmunt told them the secret of it. "It is an old recipe from Europe. It is only necessary to add broccoli to the pickling juice to make the eggs turn to a marvelous green color that children adore."

It was not many days later that Olin's trial came to pass in the town hall. The trial opened precisely at 8:00 AM Thursday, November 30, 1854, as Judge Reginald P. Quilstadt slammed down his gravel upon the oak desk that had been provided for him. It rested upon a raised platform and elevated him some four feet above the milling crowd in the large meeting room. The tumult of excited voices began to subside and to hasten their demise he slammed his gravel down a second time while scowling out at the crowd. The hall became hushed.

The judge wore a simple black coat over a very substantial frame, hinting that the way to his heart was through his stomach. His complexion was ruddy and his light green eyes peered out menacingly over a full black mustache and beard. He possessed an abundant crop of thick black hair that cascaded down upon his forehead. At fifty-five years of age the first hints of gray were appearing in his hair and beard.

"Sheriff," he bellowed out gruffly, "expel immediately any person that makes even the slightest sound in my court. Now, let him rise that speaks for the prosecution."

From his seat at the prosecution table arose a man of perhaps forty-five years of age with a pallid complexion, thinning reddish brown hair and a tall and bony frame. He

declared, "H. Arlen Moses as the attorney representing the town council members in the prosecution of the case, Your Honor".

Observing him Olin saw that he had the demeanor of a man that was confident of his ability to win the case and somewhat haughty as a result.

"Let it be so recorded," the judge ordered. He nodded towards a small table at the side of the room where Mrs. Pentahelm sat and she wrote it into the record of the trial. "Now, let him rise that speaks for the defense," instructed the judge.

From his seat alone at the defense table Olin rose. "Olin T. Collins speaks for the defense and will act pro se, if it pleases the court."

"It does not please the court," the judge declared loudly. "You are a minor child of age fifteen and you can not legally act pro se. Who then will speak for the defense of this child?"

Mr. Hiram rose from his chair a few feet to the rear of Olin and addressed the court. "If it should please the court Your Honor, Mr. Will Hiram practicing at the bar, speaks as a friend of the court in possession of some pertinent information."

"Good morning to the esteemed council, it is good to see you in the court again." He obviously knew Mr. Hiram from past cases. "However, council did not state that he would speak for the defense but instead as a friend of the court. Must we already have confusion at such an early hour? It causes my breakfast to turn over when it once peacefully rested."

"Not confusion, but instead notice of a ruling of the New Hampshire State Supreme Court and with it a greeting to Your Honor from the Chief Justice who sends his kindest regards and begs that you will find your way clear, as he asks, to embrace the ruling of his court."

The green eyes of the judge were now all the more visible as the lids peeled further back at the mention of a ruling from a higher court. "Pray, reveal to this court the nature of the ruling of the State Supreme Court," said the judge, "and even before that let the record show that this court hastens to abide with great respect to the ruling."

Hiram spoke. "On the date of November 14, 1854, a Mr. Henry Macnock, respected businessman of this town and here present today, petitioned the State Supreme Court to grant to him the adoption of the minor and orphan, also here present in this court, one Olin Terrel Collins. With no reason evident to cause an adverse ruling the court so ruled to grant the petition of adoption."

The judge nodded again towards Mrs. Pentahelm. "Let it be recorded that the wisdom of the State Supreme Court is to allow the adoption of O. T. Collins by one adult male individual, Henry Macnock. Now Mr. Hiram if you have nothing further you may be seated."

"If it pleases the court, and continuing to speak as a friend of the court, I respectfully bring to this court's attention another matter as ruled upon by the State Supreme Court."

The judge leaned forward in his chair and peered intently at Mr. Hiram. He was not entirely pleased with the course of matters in his courtroom. "Say you now? Two rulings from the State Supreme Court and this court hasn't yet heard the first word of an opening argument in the case here before us."

"If it pleases the court," Hiram continued, "the second ruling will provide the clear avenue for the progress to opening statements as it determines the person responsible for presenting the defense of Olin T. Collins."

At this the judge pushed back into his chair and with a slight wave of his hand towards Hiram instructed him to continue. "Then hastily proceed by all means."

"On the date of November 14, 1854, the State Supreme Court granted a second petition to Henry Macnock. Mr. Macnock declared to the justices of the court that his now adopted son Olin T. Collins, was possessed of real property, some ten square miles in extent, had additionally conducted honest transactions with some several businessmen of the town, had been constantly and competently employed by the railroad since age nine years, had established accounts within the bank to the benefit of orphan boys and had provided for their sustenance and medical attention, and in many other respects, perhaps too numerous to be read here at this moment, so I say "et cetera" to the record, had performed responsibilities similar to or greater than those of the average person beyond the age of majority, and therefore should be granted the right of majority, at age fifteen. The justices of the court ruled in favor of the petition unanimously. Therefore, Your Honor, the defendant stands before the court as an adult and fully entitled to act pro se. Having had the pleasure of assisting the court in this matter I now sit as a spectator."

The judge flushed as he stared at Mr. Hiram and his lips moved slightly. Mrs. Hollings leaned towards her deaf friend Mrs. Bolts and in sign language asked, "What did the judge say?" Being accustomed to reading lips she knew instantly what the unspoken words had been. "He said, "You son of a bitch.""

Everyone began to speak at once the moment it dawned on them what it was that had transpired and the din in the room rose to a near roar. The judge slammed his gravel down again and again and again without any perceptible result upon the vocal throng.

Mrs. Bolts leaned over towards Mrs. Hollings. "He just said, "This court is in recess you mob of dumb disrespectful bastards!""

The judge rose from his chair and stormed off through the side exit of the platform. He was in a near rage at the fact that a case that he had thought would be disposed of within the hour to the benefit of the town councilmen had become an experiment in the law, and both the progress of the trial and its final outcome were now very uncertain. He abhorred uncertainty, as he was a man that had a compulsion to be in control of the events that occurred in his courtroom.

Olin was not pleased with the situation. He did not relish the fact that the judge had left the platform in a fury as it could well cause him later difficulty. He waited with abundant anxiety for word to come of how the judge would desire to proceed with the trial. A half-hour went by, taking a day to do so in his mind, before Sheriff Tramell approached him and informed him of the judge's intentions. "Quilstadt says that the trial will proceed at 10:00 AM and if you do one single thing to disrupt the court, or show disrespect, I am to manacle you and remove you from the courtroom." Olin nodded to indicate that the instructions were perfectly clear to him.

## Chapter 21

At precisely 10:00 AM Judge Quilstadt returned to the platform and slammed his gravel down upon the oak desk with such force that it cracked the writing surface. "This court is brought to order with the Honorable Reginald P. Quilstadt presiding," he stated. "Sheriff Tramell, if I point at any person, then you are ordered to remove that person from the court room instantly, employing any significant force that might be required, and remand them in jail under the charge of contempt of court, a fifty dollar fine being required to be paid."

"It will be done Your Honor" affirmed the sheriff. The courtroom became absolutely silent.

"Good," said the judge. "Then let us proceed with this trial of an adult person, let the record show, one Olin T. Collins, here present. Mr. Prosecutor, rise and state the charges to the court."

H. Arlen Moses rose from his seat. "The defendant is accused of obtaining a property from the town for a price less than the true value of said property. The charge is fraud and taking by false representation. A larceny."

"Let the charges be recorded," instructed the judge. "Sit, Mr. Moses. Arise Mr. Collins and declare how you plead. Guilty or not guilty of fraud and larceny?"

Olin rose. "I express a deep respect for a court of law and I ask all spectators to remain absolutely silent as I plead." He paused a moment. "I plead that the accusation is just but that the charges are unjust. Therefore I plead innocent to the charges."

The judge glowered out towards the packed room as a reminder that they should maintain their silence, or else. He then stared down at Olin. "Would you explain to the court what the hell you just said?"

"With all respect, Your Honor. I will speak carefully, mindful of the need for decorum in a court of law."

The judge was not sure that he liked the sound of that. Elliot Segall sitting in the row of chairs that represented the jury box was absolutely sure that he did not and clutched his bible tightly in his left hand.

Olin proceeded. "The Town Councilmen are justified in bringing the accusations because they must always perform in the best interests of the town as a whole. If Your Honor would have the patience to allow an analogy?"

The judge allowed it. "Proceed. Carefully."

Olin turned slightly towards the jury. "Let us think that the council members observed a stranger within the town, with no apparent reason to be there, and perhaps the man's appearance is less than wholesome." He paused a moment to allow everybody to form a mental picture and then continued. "They would be justified in the best interests of the citizens to have Sheriff Tramell approach and query the man as to his motives as he appears suspicious. Now, let us say it is then revealed that the man is a minister of God and has traveled far and that causes his appearance to be shoddy. It is further revealed that he is a cousin to a respectable town citizen who verifies the man's vocation and his good person." A few spectators quietly mouthed "Amen".

"In all of that," continued Olin, "there has been no false accusation or crime



committed. It is the same here today, I will argue. The accusation is just, but the charge is unjust. I plead not guilty just as the man of God would to any charges brought against him."

A murmur began to rise in the room and the judge slammed down his gavel so hard that it sounded like the crack of a nearby lightning stroke. "There will be order in this court or you will all go to jail." The room became silent at both the loud gavel noise and the threat.

Olin's words were not lost on the Town Councilmen. He had defended their actions as just and honorable. They were in need of such praise. For months they had been accused of defrauding a young lad with worthless property, and then after that they were accused of having been fools defrauded by a youth.

The judge re-fixed his eyes upon Olin. "So, young councilor, you profess kindness and affection for the members of the town council that have brought these charges against you?"

"Yes Sir, they acted with all honesty. They are to be praised and not faulted."

"You may sit down," declared the judge. He then gave instructions to the prosecutor. "Mr. Moses would you reveal the accusations of the benevolent members of the town council in some detail?"

A twitter went about the room and once again the judge slammed his gavel into the now shattering oak desk. Order and silence returned to the room.

Moses rose. "If it please the court, I will expound upon the just accusations of the town fathers. First, the defendant approaches the Town Councilmen through Mr. Hiram, an accomplice here present..."

"Objection, Your Honor", Olin said as he rose to his feet.

The judge's eyebrows knitted together as he peered down sternly at Olin. "What is your objection, young counselor?"

"The use of an improper characterization. As a fact Mr. Hiram acted in the respectable capacity of my legal representative in this purchase of property. If the esteemed Mr. H. Arlen Moses is permitted to characterize that in the degrading manner of implying that the good man acted as my "accomplice" then before us all, he slanders every person that practices before the bar. All lawyers become accomplices of those criminally charged if you allow that to be recorded and remain forever in the records of this case."

The judge sat back slightly and pursed his lips in thought. It is just minutes into the tea party when a mere boy spills a full cup of hot brew into the lap of the experienced prosecutor. The judge now believed that he was damned if he did, and damned if he didn't confirm the objection. If he ruled for the youth it embarrasses a learned prosecutor and member of the judicial system. If he denies the objection he would be overturned upon appeal and that was a much more serious matter. He decided to sacrifice Moses. "Objection sustained. Mr. Moses, in the future select your words with more care. Or better still Mr. Moses, watch your mouth when it comes to describing respected members of the bar."

Once again there were murmurs in the room and he slammed his gavel down to quiet them. All went to silence, except one. Oblivious of the judge and his gavel, Judy

could be heard to say, "Good, Olin, good!" Samantha Olsen shifted angrily and jealously in her chair.

The judge instinctively knew that the first person that he ordered in contempt of court should not be an enthusiastic and pretty young girl so he ignored her words.

"Proceed, Mr. Moses," the judge ordered.

"Yes, Your Honor." The man fumbled through some sheets of paper seemingly distracted and embarrassed by what had just transpired. Olin glanced over and concluded that Moses had rehearsed his opening statement in the belief that as it had always before, it would proceed smoothly and without interruption. When the unexpected occurred he lost continuity and was stumbling about in his mind for his next statement to the court.

"We charge that the defendant failed to disclose certain important facts to the town council," said Moses. "As witness to that fact we state by way of an example that he has caused what appeared to be large glacial erratic boulders, of no apparent value, and in fact an impediment to the past use of the property, to be rendered asunder by fire. He managed to accomplish this with ease by having young orphan boys build and maintain fires adjacent to them. The same boys then knocked the sheets of rock that resulted from this into pieces. These were sold at a good profit to one Mr. Stephan Horan, a stonemason and builder of house and barn footings, for use as foundation stone. Now, had the Town Council been advised of such easily possible profits they clearly would not have let the property pass for a mere ten cents an acre."

The judge peered down at Olin hoping that the lad would not discover some grave fault in that charge. Olin smiled slightly to indicate that he had no objection. Then on second thought he stood and addressed the judge, whose eyes rolled upward ever so slightly. "Your Honor, upon reflection I find the accusation as stated by the prosecutor is not complete, as there is more to it than he has spoken of." Mr. Moses' jaw dropped. He shook his head as if he had misheard something.

The judge required a moment to comprehend Olin's declaration. He rose slightly up in his seat, all the better to gaze intently down at Olin with a stern questioning expression. "Do you maintain that the prosecutor is derelict in the assemblage of the full accusation against you?"

Olin replied respectfully, "Yes Sir."

"Speak," said the judge. "I can not imagine why the hell I am saying this, but speak."

"Thank you, Your Honor," said Olin. "In the interest of causing the record to be complete, and to avoid any possible future criticism of the learned prosecutor for negligence, I feel that the following should be added to the charge. It is correct that the large boulders were rendered asunder by fire at the hands of young boys. However he neglected to state that the fuel wood used for those fires was also free there for the taking, and I did not have that possibility mentioned to the Councilmen prior to the sale of the property."

The judge was a man that had presided over numerous trials and had heard a multitude of arguments. He now guessed exactly what Olin's defense would be and he did not like it one damn bit. He realized that he already had one foot between the sharp

jaws of a judicial bear trap and if he jiggled about a little too much he might cause the latch to release. That could destroy his aspirations to sit upon the State Supreme Court.

He looked towards Mrs. Pentahelm and instructed her. "Let the record show that the defendant has assisted the prosecutor to assemble the charges against the defendant. The court remarks to the prosecutor that he should take better care in his preparations for court and be more diligent in the future." Mr. Moses slumped down into his chair, confused, stunned and considering a request for a recess.

The courtroom remained silent. The judge addressed the prosecutor. "Are there further instances of such manner of the defendant doing business?"

"Yes, Your Honor." Moses glanced over at Olin with an expression that seemed to make the entreaty that he desist in his comments to the court. The prosecutor continued speaking, but with hesitancy. "There is a river adjacent to the property and at one point it cascades over a falls of some thirty feet. As is well known, that is a very sufficient head of fluid to power a waterwheel.

Now others, such as sawmill and gristmill men had observed that it was not economically feasible to clear a sluiceway for water through the path of stones, there being a multitude of them, in order to provide a source of water to drive the wheel around. Additionally, there needed to be cleared, or otherwise provided, a space for a mill and cabins and workshops and this work also would prove to be overly costly. And a road would be required also. The defendant knew ahead of the purchase, we are sure, that he would make use of young orphan boys, at a small cost of board and found to clear away the stones or to otherwise build them up into a stable platform suitable for foundations and roads." Moses paused as he eyed Olin nervously.

Olin remained sitting quiet.

The prosecutor continued, almost stuttering. "Now, Your Honor, it is well known that a grist or sawmill can return a substantial profit and if the Town Councilmen had been advised of this enterprise they would have markedly increased the sale price of the property to take it into account. And that concludes the charges," he hurriedly summed up and immediately sat down.

The judge turned his gaze to Olin and their eyes met. Olin shrugged his shoulders ever so slightly to indicate to the judge that it would be the court's decision if he spoke further about the extent of the charges.

"May Heaven be my guide," mouthed the judge, "because I discern no judicial sense in asking this question. Does the defendant wish to add to the charges?"

"If it please the court," replied Olin

In a mournful and subdued voice from Moses, whose head rested downward upon his folded arms on the table before him, "Oh, sweet holy mother of God."

The judge glanced at Mrs. Pentahelm and instructed her. "Let the record show that the prosecutor is praying." Turning back to Olin he observed, "It is not a matter of being pleased or displeased because the court must remain impartial. If you wish to speak then stand and speak"

"Only in the interests of completeness," said Olin politely.

A low moan issued from the direction of the prosecutor.

"I declare," stated Olin, "that it is the truth that I did not inform the respected

Councilmen that the lumber necessary to construct log cabins, a blacksmith shop, a grist and sawmill and a waterwheel would be free upon the property for such use and that I would not incur a cost to purchase such lumber."

The judge slumped back slightly. Without looking at her he asked Mrs. Pentahelm, "Is the record now complete based upon all that has been said?"

"Yes, Your Honor," she replied.

"Good. This court is in recess until 8:00 AM tomorrow morning." He lightly knocked the gravel upon the deteriorating desk, rose and exited to the left off the platform. The crowd burst into a rattle of conversations, most being centered upon a single question. "What the hell was going on?"

Mr. Hiram walked up to Olin and placed his hand lightly upon the youth's shoulder. "You were not expanding the charges, you were presenting your defense, and using the prosecutor's allotted time to achieve it."

Olin shrugged. "If he allows me to plant seed in his field and then allows me to harvest it, well then I can use my own fields for other purposes."

Hiram commented upon the obvious. "The judge is not overly enchanted with your performance. It threatens to usurp his control of the proceedings."

"I need some way to convey my intention of preserving the judge's good name and reputation, and that of others. I do not intend to be malicious," Olin assured him.

"Well, shrugged the lawyer, "you can not meet with the judge in the absence of the prosecutor."

"I know that. I am simply going to have to get a message across to him in the open courtroom."

They both noted that the jury members were mingling with the Councilmen, their heads close together in conversation. "I see that the jury is getting their instructions," Olin remarked.

"They are going to come back with a guilty verdict," sighed the lawyer.

"No, they are not."

"Olin, why do you think that you can read the future?"

"Because if one makes the future, then one knows in advance what it will be."

"And you are going to make the future?"

"I certainly hope so. Otherwise my fate is sealed," Olin said while smiling.

Hiram observed Judy approaching through the crowd so he stepped away to allow them some privacy. Judy and Olin walked out of the building together. He relished the coldness of the air because he had become uncomfortably warm in the building, as the body heat of the large crowd had generated a considerable rise in the temperature within the courtroom, causing some spectators to remove their heavy coats.

Judy whispered to him. "I did not want to ask you about the case in the town hall for fear someone might overhear your plan. What do you expect for tomorrow?"

"We shall not talk about the case. It is better for me that way. At this moment you should be informing me of the good supper that I will have by your hand this evening." Olin's mind was at ease. The case did not weigh upon him and he very much planned to enjoy a nice supper with Judy and her grandfather. When they arrived at Henry Macnock's store the elderly man was back at work behind the counter and the store was

full of customers gossiping about the trial. A hush came over them when they saw Olin and as he and Judy entered the store they cleared a path for them and nodded respectful greetings.

"What of tomorrow?" excitedly queried Mrs. Lorrent.

Olin looked behind him to assure that the opposition was not about and then he leaned forward in a confidential manner. In a hushed tone of voice he said, "I will tell you the secret of it."

There were strong inhalations of breath among the crowd and they moved closer so all the better to hear him. He said, "If you get there early you will get a good seat."

For a moment there was silence as the people tried to make sense of it. Then as a group they burst into laughter upon the realization of the joke. They reasoned good-naturedly that he of course could not reveal his tactics and several of them patted him fondly upon his back and wished him well.

Their affectionate actions were not lost on Olin and he silently examined the psychology of the citizens. They had begun the morning convinced that he had robbed the town and that they would see his sentencing to a work gang before dark fell. They now held the emerging belief that he might win the case. The loyalties and support of bystanders often quickly shift to the side that appears to be winning as everybody wishes to be on the triumphant side. The merits of the case usually count for nothing.

Mr. Macnock announced that the store would close for the remainder of the day to allow Olin to relax after a trying time and to enjoy a good supper later. When the group had exited the store Judy retired to the house to start preparations for the evening meal.

"They are for you," Macnock observed to Olin.

"They are for the last gladiator standing," argued Olin.

"That is a harsh comment my boy."

"An honest comment Sir. If they thought that I was going to be sentenced to hanging they would exhaust your supply of rope in preparation for the occasion. I don't say this out of any bitterness. People are people. To many of them it is not very important which side it is that wins, it is only important to be with the victorious group. That is definitely how politics works."

"Well, I will award you a victory on that last statement. Now, besides supper, is there something else we may do for you this day?"

"I would like to sleep in the back room of your store instead of making the trek to the train barn in the cold."

"Certainly. Judy will fix bedding there."

Olin said, "I wish to marry your granddaughter."

"I have always known that, Olin."

"I mean I wish to ask you for her hand in marriage at his moment."

"Yes, of course you have my blessing. Does she know of your asking?"

"No. We are too young to marry yet and thus it is too soon to ask her. I just needed confirmation of your approval and ask that you keep the secret for the moment. I have a plan for a house in my mind," Olin revealed to him. "A grand house to be built on the property of The Rocks."

Mr. Macnock's interest focused on Olin's words. "I might have need of a few buildings in the future so your talk of structures has my attention."

They talked quietly for several hours on the subjects of new buildings and their business dealings. At one point Olin looked up and observed his Aunt Henphra entering the store. She had tears in her eyes as she approached Olin and fondly embraced him.

He soothed her. "Now, now, dear Henphra, all will go well tomorrow. I have no intention of becoming a jailbird."

"That is not what brings tears to my eyes as I have great faith in your abilities. These are tears of joy for another reason." From her coat pocket she took a letter and handed it to him.

He saw that the return address was Jane Morgan, 16 Nattanel Street, Montreal, Canada. The envelope contained a blank sheet of paper. They all knew that it signified that Holnami had found her daughter Ofina, and that they were safe.

With a tearful smile she requested, "Olin, please post that upon the notice board of the town hall as you enter for trial tomorrow."

"It will give me both great honor and pleasure, dear aunt."

## Chapter 22

At five minutes to eight o'clock in the morning Olin entered the front lobby of the town hall and walked over to the bulletin board. It was used for the placement of official town notices and also benefited citizens wishing to post notices of bake sales and such. Olin removed the blank piece of paper from his pocket and used an available pin to mount it to the board. As he turned to enter the main hall for the trial he noted that Mrs. Pentahelm was standing nearby observing his actions and seemed curious as to the purpose of posting a blank piece of paper.

Olin walked over to Mrs. Pentahelm and greeted her. "Good morning, Madam." The message on the paper is written in invisible ink. And it can be read only by invisible people."

"I will enter into the record of the case that the defendant intends to plead insanity," the woman declared dryly.

Olin continued talking socially. "I must tell you, madam, there is a very great advantage to being the defendant in this trial."

Puzzled, she asked, "And what might that be?"

"I do not have to worry that someone will sit in my seat." She smiled faintly at the gallows humor and entered the hall to take up her position at the trial recorder's table.

As Olin entered the crowd parted easily for him and he felt hands patting him upon the back and the murmuring of encouragement as he proceeded to the front of the hall where he sat down in the defendant's chair.

Within a minute the judge appeared from the left side of the platform and everybody rose to their feet. He sat down at the oak desk and with a moderately hard rap of his gravel announced gruffly, "This court is in session, the Honorable Reginald P. Quilstadt presiding. Mr. Prosecutor, you may proceed."

H. Arlen Moses rose to his feet. "Your Honor if it please the court, on the prior morning the defendant all but admitted his guilt in the matter before the court. I move that the jury be given their charge so that they may immediately deliver their verdict of guilty."

"Motion denied," spoke the judge dryly.

Olin rose to his feet. "Objection, Your Honor."

Astounded, the judge inquired, "You object to my denial of the Prosecutor's motion to condemn you posthaste?"

"Not at all, Your Honor. A just denial, I am certain. I object to the prosecutor having slandered the jury by implying that they would fail to carry out the duty that they have sworn an oath to perform. Namely, to deliberate a few moments before finding me guilty as charged. It vilifies their good name and impugns upon their good reputations."

In a flat voice the judge instructed the recorder. "Let the record show that the defendant has risen to the defense of the jurymen, against the prosecutor."

H. Arlen Moses' face had drained of blood and turned sickly. Less than a minute into the day's proceedings and a mere boy had once again made him look like a fool.

The judge addressed Moses. "Has the prosecutor further charges or evidence or witnesses to bring forth?"

"No, Your Honor. The prosecution rests." Moses slumped down into his chair.

Quilstadt turned his gaze towards Olin. "Is the defendant prepared to present his defense?"

"Yes, Your Honor. I am fully prepared."

"You have no notes or papers on the table before you," the judge observed.

"Paper is expensive, Your Honor."

The judge sat back slightly as he pondered Olin's possible tactics. "You may proceed."

Olin rose. "Your Honor, Mr. Prosecutor and Gentlemen of the Jury. The case seems to spiral around the question of my having failed to give notice of some things to the councilmen prior to my purchase of the fallow property called by many "The Rocks". I have previously stated that was a fact and I will not here deny it. But..." He paused.

The judge let his breath out slowly. He had been holding it since Olin had risen to his feet. Just maybe, he thought, just maybe his judicial career would not end that day.

Everyone's attention had been snared by the word "But". Olin let it hang in the air. Finally he went on. "But... we must ask: what was the effect of such a failure of notice?"

The carpenter, Clive Johnson, sat upon the jury and Olin was very careful not to look directly at him. Instead he fixed his gaze upon the second button down on the judge's vest. A safe enough place he thought. He continued his defensive statements. "Every single person in this court has at one time bought something. All have made purchases. Now, when they did so, what did they disclose? They disclosed the fact that they wanted to buy a thing. I disclosed the fact that I wanted to buy The Rocks."

There were murmurs among the spectators. "That's true. Yes, I said that I wanted to buy a thing."

Hiram was amazed. In one fell swoop Olin had placed every person in the building in the defendant's box with him. Judge Quilstadt did not rap his gavel. H. Arlen Moses groaned.

Olin proceeded further with his defense. "Let us now imagine that a carpenter has bought some lumber." Clive Johnson leaned a little forward in his jury chair, his attention squarely centered upon Olin's words. Clive had over the years bought large amounts of lumber and this was a matter that interested him a great deal.

"Now," continued Olin, "let us further imagine that this carpenter (Clive was damn sure it meant him) bought the lumber as logs uncut, without disclosing his future intent for the use of them. He just bought them for whatever use might be made of them. A church building perhaps." Elliot Segall took note of the last words. "Amen," from some in the audience.

Olin continued his defense argument. "Let us think that the carpenter who has bought the log lumber constructs a fence to hold in some livestock, which have been errant in their paths. The seller of the lumber visits one day and seeing the use of the logs says "Well done". Olin paused. The room was silent.

"So far, so good," he finally went on. "But what if instead the carpenter saws the lumber into planks and begins to construct a great mansion with this very same lumber, and this mansion can be sold at a good profit? Imagine that the seller of the logs returns



now and says, "If I had known that you would build a great mansion and realize a good profit and not a mere fence with my logs, well you may be sure that I would have charged you much more for the wood"."

The audience was upon its feet shouting. "No, No! That is not the correct manner of doing business!" The judge rapped his gravel repeatedly but not overly hard. Moses groaned. Repeatedly.

Olin raised his voice a little in order to be heard. "I pause here and ask, please dear citizens, and if it pleases the court, it is not the councilmen of this town that are the kind of sellers here referred to. They have previously been exonerated from having committed any uncharitable act. Silence is golden, it has been said but that does that mean that I should not speak in defense of the innocent."

The councilmen were in the audience and had at the start of the trial on the previous day come to wait like vultures upon the branches of dead trees for the carcass of the condemned. Instead they found that this was the second time that Olin had spoken well of them. They had brought the original complaint against him and it confounded them to hear his voice urging their protection. They were coming to believe that Olin might save them from the wrath of their wives who were filled with anger because they had caused a nice young lad to be brought to trial.

The defendant continued, "And what if the seller of the logs persisted, and brought back with him a constable of the law, and obtained a legal order that the boards must be ripped from the walls of the mansion, or of a church, (gasps of horror from the spectators) and given back to the seller and the carpenter is now charged with larceny of lumber?"

From the spectators, and most hotly from Clive Johnson, arose a cry; "No, no! That is not a right thing!" The spectators were upon their feet and there were shouts of; "Acquittal, acquittal!"

The judge waited for Olin to request that the charges be dismissed. It would have been done in a heartbeat. The judge was becoming perplexed that Olin seemed only to be gathering his thoughts for a further assault. Actually Olin was thinking that the carpenter Clive Johnson would vote for acquittal but that he needed more jurors to vote the same way.

Judge Quilstadt rapped his gravel repeatedly without effect upon the spectators. Finally he rose from his chair and bellowed. "Shut the hell up and sit the hell down!" The spectators quieted and as they retook their seats the judge apologized to the audience. "Forgive me my dear ladies, and I see the good Reverend Kertabit there also, I ask him to pray for my redemption." He slumped back down onto his chair.

Olin had remained standing as he waited for the voices to subside. He lifted his head and looking directly into the eyes of the judge he silently mouthed the Latin words "Circus Maximus". The Latin expression was not lost upon Quilstadt.

It was not Emperor Nero that determined which gladiator lived and which died in the Great Coliseum, it was the crowd of spectators that made the choice with their abundant voices, and the head of state merely implemented it by an upward or downward motion of his thumb. He dared not do otherwise. Olin's silent words were meant to have the man realize that the spectators, and not the judge and the jury, would

carry in the verdict and woe be to him that defied them. Since antiquity the common people had scant entertainment and it was folly to leave them in boredom with abundant free time to devise revolution. The wise ruler provided diversions for idle minds by means of tribal dances, public executions, or massacres in the Coliseum, known as the Circus Maximus. He who controlled the mindless mobs controlled the nation. It ever was and ever will be.

The judge moved uncomfortably in his chair as he contemplated an avenue of escape from what he expected to occur next. His eyes wished Olin to relent and let the matter come to an end. A verdict of innocent could be directed from the bench. His stomach churned as he realized that Olin would not make such a request.

"If it should please the court." Olin began speaking again. "There is the matter of the bible."

Judge Quilstadt reached up and nervously scratched his right ear. He declared, "You may proceed and explain to us your mention of the holy bible."

"Your Honor, I ask that the court to imagine that a person has sold a bible."

There were murmurs of, "Amen"

"There have been millions sold," the prosecutor remarked antagonistically. "What does the sale of one matter?"

"I wish the record to show that the prosecution has enhanced the defense's argument," Olin requested. "Yes, certainly, there have been millions of bibles sold. I thank the prosecutor for verifying that fact." Moses moaned. Some of the spectators applauded briefly.

Olin raised his voice. "And how many have the Good Book?" The audience rose to their feet en masse. "I have a bible!" They shouted almost in unison.

Quilstadt said, "I previously warned all of you that I would clear the courtroom if you do not remain silent." Even as he said it the judge knew that an order to clear the courtroom would result in a riot.

"I beg the court to forgive me," said Olin.

"I am very sure that you do," responded the judge in an irritated manner. "What in hell do you wish to tell the court about the bible? Forgive me Ladies and Reverend."

"That it is a good book read by many. And a person need not disclose what he will do with a bible once he has bought one." Slowly the crowd hushed in anticipation of what might be heard next.

"Proceed," the judge finally instructed him.

"Well, it is possible to buy a bible and to then set it down without reading it." There was silence from the audience. Many had done so. Some feared that Olin was going to reveal who they might be. Olin went on. "Well, what if a man did read it? And he learned the good word. And then he devoted his life to bringing God into the life of others." Segall was rapt with attention to the words.

"And then what if he went out and spread the good word, in fair weather and foul?" asked Olin. "Would we allow the seller of the bible to approach this reverent man and say to him, 'If you had let your bible lie dormant upon a table the price you paid for it would have been correct. But now you have read the bible, and used it well, and spread the good word to others, and they respect you for that endeavor and work.'"

Elliot Segall pushed his chest out slightly in pride as he sat upon his jury chair holding his bible.

Olin tried not to look at him as he continued speaking. "And what if the seller said that the bible is clearly worth more than the price paid so now the man of faith must pay more? I ask you, could we ever allow such a sacrilege? "

The spectators were upon their feet once more. They were in uproar and the rapping of the judge's gravel be damned. "No! Never!" cried out one. "They can not put a charge upon a man because he reads the bible and is devout," stated another. "It would be unholy," shouted a woman. "There are devils about this place" cried out another woman. "May Heaven help us," she gasped as she swooned.

The judge knew the commotion had to run its course and he sat impatiently awaiting its end. He was well aware that he was not in control of the court because Olin was.

"If it pleases the court," Olin said as the tumult of voices subsided, "a good and devout man must be allowed use his bible as he wishes. Perhaps he might read the good word from it every evening to his loved family members."

Segall nodded his head affirmatively.

"Or perhaps he is a learned man of letters and the Good Book provides him with wisdom in his writings that are meant to bring benevolent guidance to the townsfolk."

Everyone in the room knew that he was talking about Elliot Segall's articles in Trinkem's paper and Segall was very gratified.

The judge spoke. "We accept your notion and belief that a person should have a bible and use it to achieve the greatest good without any interference or hindrance from the seller."

"Amen," from the audience and from Segall.

"Now, does the defense wish to rest?" the judge inquired with scant hope of an affirmative answer.

"If it please the court," Olin began speaking again, "there is the matter of the horse."

The judge almost laughed in his nervousness. "What is the matter with the horse?" he reluctantly asked.

"Well nothing, Sir. I simply meant to bring up the matter of the horse."

The judge slowly sank back into his chair again, all the while contemplating Olin and wondering what might transpire next. Was there some manner in which he could control the utterances of the lad? The judge knew that the answer was, no. "The court allows the defense to raise the matter of the horse. Does the prosecutor object?"

Moses rose to his feet. "For the record Your Honor, I have no idea what it is that I should object to. He speaks of a horse but I have no idea if it is imaginary or real."

"It is analogous, Your Honor," Olin stated helpfully.

Among the other jurymen was Farmer Michaud, the husband of Babette. Out of the right corner of his eye Olin could see Segall and Michaud huddled in whispers. He forced himself to look away from them and to once again concentrate his gaze upon the second button down on the judge's vest.

The judge spoke. "Let the record show that the horse is in fact imaginary and that

the defendant wishes to relate to us a tale about a horse that does not exist."

"If it pleases the court, Sir, the horse can be real enough," Olin informed the magistrate. "Many farmers hereabouts own plow horses." Farmer Michaud became attentive. "The tale could also be true. I just mean to tell it to fortify my defense."

The judge was slowly rocking his head back and forth in bewilderment. What in the world was the defendant up to now? "Strike my direction to the record. Proceed with your tale."

"Thank you, Your Honor. Let us think that a good farmer goes to a breeder and seller of plow horses and indicates a desire to purchase one. Perhaps the seller asks, "To what use will you put this horse if I sell it to you?" And the good farmer replies, "I would put it in harness to my plow and then I would plow back and forth all of my fields and then I would plant corn and grain in those fields. I might also harness the horse to some large rocks in the field to have them moved aside." The seller replies that it is satisfactory and names a price that the good farmer agrees to and pays over to the seller.

Now, at some later time the good farmer (everybody knew he meant Michaud) has toiled mightily in his fields under the hot sun of the day and after many hours of labor pauses to rest upon the newly plowed earth. At this time the horse seller appears and he observes the horse in harness to the plow and the large extent of plowed acreage and the good farmer resting upon it. He then states to the farmer, "You owe me additional money for the horse because you put it to a use that you did not describe to me before the sale".

Olin paused. The room was absolutely as quiet as the judge might ever want it to be. Every single person including the judge and the prosecutor were leaning forward towards Olin, the better to hear the conclusion of the tale.

He finally continued. "Well, the good farmer was astounded because he had with great honesty endeavored to relate to the seller the uses to which he would put the horse and believed that he had put it to no other. What then could be the complaint of the seller?" He paused again in the silent courtroom.

"The little bastard is playing it for all it is worth," the judge thought to himself. "He would make a fine lawyer one-day but I wish that he was not practicing for it in my courtroom." Aloud he directed, "Move it along."

"Yes, Your Honor, I am within seconds of completion."

Moses said under his breath, "Praise God."

Olin cleared his throat. "The good farmer asks, "What do you mean by your accusation that I was less than truthful in describing the uses to which I would put this horse?" The seller responds, "It is obvious that you meant to withhold a use from me. On this hot sunny day you are sitting there upon the earth with the shadow of the beast upon you to shield you from the suns burning rays. I sold you the horse, but I did not sell you its shadow for which you now owe me"."

The room was in an absolute uproar. The judge did not bother to rap his gavel. He sat slumped in his chair in total depression believing that his career was ruined. Yes, Olin was right, it was a Grand Circus of a trial and he would be ridiculed in the halls of justice, as a failure, as an incompetent.

The jurymen were on their feet waving their arms to get the judges attention and crying out loudly. "We acquit! We acquit!"

On the one hand the judge was immensely relieved that the jurymen were screaming out to acquit as that might possibly save his judicial career. If the verdict had been guilty it would have placed a dark ominous cloud both over the judicial system and all business transactions. In effect it would have meant that no business deal would ever be complete and final. A seller could always search about for reasons ad infinitum to allow him to return to a buyer and demand additional funds. It would bring chaos to all transactions. And the cause of that would have the name, Reginald P. Quilstadt, fool by title. All sellers would have cited this case as precedent, in effect saying, "I am here at Judge Quilstadt's order to demand more money from you."

The judge realized that the trial had been as Olin noted, a Circus Maximus, and that alone could at the least impede his path to the Supreme Court. He could not devise in his mind any method by which he could avoid the stigma of ridicule.

Olin had no intention of allowing the judge to be damaged by the course of the trial, as he believed that there would be future occurrences wherein the friendship of a notable judge could bring great assistance in a time of need, and the same for the prosecutor. He now moved to resurrect the judge's reputation and hopefully gain his gratitude. Olin raised his right palm towards the judge in a gesture to have the judge recognize that the defendant wished to speak.

The judge stared ruefully down at Olin and thought that it would not be possible for him to do any further damage. "Speak. Let the defendant speak." The room began to hush, as the people became aware that Olin was going to talk again.

In a strong clear voice Olin said, "I wish to thank the court, nay, I wish to thank you, Your Honor, for a noble and intellectual demonstration for our education in the law." The judge was bewildered by the boy's words but they did not sound all that bad to him. Olin swept his hand through the air. "We, all of us here, are in your debt for having brought us an experiment in the workings of compassionate and reasoned justice."

Quilstadt could not imagine what in the world Olin was going on about but he certainly liked the drift of it. He pulled his shoulders back and sat straighter in his chair.

Olin smiled up at him. "Yes, Your Honor, you have demonstrated admirable intellect in arriving at the concept for a "mock" trial for the betterment of our understanding of the law that rules our land."

The judge could only wish that it had been a mock trial for then there would be no need to submit the record officially to a higher court for review. A mock trial would be viewed merely as a local academic exercise to demonstrate certain aspects of the law to the general public to further their understanding and respect for the judicial system. As he realized that he could be commended for his efforts to educate and inform the citizens a look of relief appeared on his face. If he watered the tree perhaps it would bear fruit. "The "mock" defendant may continue." He emphasized the word "mock".

H. Arlen Moses was upon his feet, his face crimson, his voice loud and cracking. "What sayeth the court? This is beyond comprehension! I object!"

"Objection over ruled, Mr. Moses. There is no need to continue your act, you have played your mock role well." Moses stood frozen in utter confusion at the judge's

words. "The mock defendant may continue," instructed the judge again.

"Thank you, Your Honor. As I was saying, like the mock trials of law school that this able judge is quite familiar with, this mock trial was intended to train, educate and inform us. It was intended to demonstrate the intricacies of the law, and leave us with a body of knowledge that we can use to our good purposes long after the learned judge has traveled on to sow wisdom in the fertile minds of other honest, good and God fearing citizens." Olin paused to rest his throat.

The crowd began to murmur quiet questions among themselves. Lessons, mock trial, learning the law, body of knowledge? Olin raised his right hand and the crowd immediately hushed. "Yes, we owe a debt of thanks to a renowned magistrate, who has given of his very valuable time out of love and guardianship for all honest citizens, and whom we must now applaud." Olin began to clap his hands together and the crowd began to follow suit, not really understanding why, but it was an innocent and decent enough thing to do. Soon every person in the crowded hall was applauding the judge who attempted to affect an air of modesty.

Olin once again held up his hand and the applause ceased. "I wish to commend the able mock prosecutor, H. Arlen Moses, for his excellent participation in this mock trial and we should applaud him also." Once again the room filled with the sound of clapping hands and Moses managed to rise, turn towards the crowd and make a stiff bow. Bafflement was imprinted upon his face.

Olin smiled. "With Your Honor's permission, I would now relate the excellent plot that you had laid out for this mock trial."

The judge nodded assent. "Certainly Olin, you may proceed to reveal my adroit method of planning out this lesson in the law." He could not possibly imagine what Olin would say next.

Olin turned towards the spectators. "The judge and the prosecutor knew that the charges as written in the warrant could not stand a legal test and thus the warrant was a mock warrant," Olin informed the people in the room. "The charge was larceny. They were well aware that larceny is "the unlawful taking and carrying away of personal property with the intent to deprive the rightful owner of his property permanently". Well, every single person in this room knows that The Rocks were previously public property owned by the town. It was not the "personal" property of anyone. And I also did not carry it away."

The crowd broke into animated conversations and Olin had to once again raise his hand for silence, which was immediately achieved. "Now, the learned judge and prosecutor knew the legal requirement "that the charge against a person must exactly match the alleged crime". As an extreme example I give you this; if a person steals a penny he can't be brought to trial for murder. I could not be tried for larceny because there had been no larceny." From the crowded room there were cries of, "Hear him, hear him, he is right."

Olin continued speaking. "Now, as regards the accusation of fraud. It is noted that such a crime is "the intentional perversion of truth in order to induce another to part with something of value". He allowed the spectators time to absorb the statement.

"Now my lawyer, the respected and able Mr. Hiram, here present (he motioned to

Hiram to stand and be seen and applauded) said to the Honored Councilmen on my legal behalf, "Olin offers you ten cents an acre for The Rocks". Now, that was not a perversion of the truth, as God is our witness, it was the absolute truth!" The crowd roared approval of the sense of the declaration.

"Now, the learned Judge Quilstadt was aware of another simple truth," Olin continued, "and he wished to bring it forth with enduring clarity by means of this mock trial and he has achieved a brilliant success in that endeavor. The truth is this. It is not possible for a buyer to have a greater knowledge of the value of a thing, be it goods, livestock, land, or sundry else, than the long-term owner of it. Thus when a long-term owner sells something it is always in the full knowledge of what the value of the item is. Since antiquity this has been well known and openly declared. In Latin the term is "caveat emptor" which means, "Let the buyer beware". There is no such term that means, "Let the seller beware". It has been agreed over these thousands of years that a buyer can't defraud a seller. Thus, the charge against me falls to dust, as the Honored Judge knew that it would."

This came as a great relief to the many people in the audience that had at one time bought something at an advantageous price by claiming a perceived defect in it. Their consciences were now clear.

Olin went on. "And further, if the court allows it. (Judge Quilstadt smilingly swept his hands upward in his encouragement to Olin.) The councilmen in their wisdom said "we wish a higher price". And here is the truth of it. I said, "Nay, I want a lower price." Now, we arrive at the moment that will test the courage of every man in this room."

Almost to a man they pulled their shoulders back and expanded their chests. Why of course, they all believed that they were all courageous.

He looked out over the audience. "Gentlemen, regardless of the breadth of your shoulders, the girth of your chest, the great sinews of your arms, I hereupon defy you to take a certain action and wager that not one of you will take up the challenge."

Some of the men rose to their feet with murmurs of, "The hell you say!"

The judge thought, "What a performer. A master of the theater. What wonderful stock for a future politician."

Olin raised his voice. "I defy any man here to turn to the ladies of the town and make this statement: "Bargaining for a better price is a crime.""

The crowd was upon its feet and the hall almost burst its windows with the tumultuous cheers and laughter. The judge was beckoning to Olin to step up onto the platform with him. Olin reached over and grasped the arm of H. Arlen Moses and pulled him along with him up the three stairs to where the judge was standing. Olin had no intention of having a malevolent prosecutor lurking somewhere out there to perhaps cause him harm at a later date. He needed to make Moses whole and happy. All three bowed to the cheering crowd.

The judge turned, embraced Olin and said into his ear, "Praise God for the Circus Maximus and may he preserve the circus master." He turned to H. Arlen Moses and embraced him also, saying into his ear, "It is not going to get any better so get the hell out of here at the first possible chance."

Olin suggested a possible newspaper headline. "Judge Quilstadt triumphs with a

lesson in the law."

Quilstadt very much liked the sound of that but pretended humbleness. "Oh, no. That is far too grand. I am sure that I must have made some slight errors in the conduct of the case, as I am not entirely perfect."

"It has been said that God causes great men to have small faults in order that amusement might be provided to the ignorant masses," Olin comforted him.



## Chapter 23

At noon the following Sunday the meeting room of the town hall was once again full of townspeople and the mood was highly festive. The townspeople were simply in a happy mood now that the trial had ended well for both Olin and the Councilmen and declared that just cause for a celebration. Tables had been carried in from the various offices and were now laden with foods of all sorts. The fiddler and the guitar player had further enlivened the ambiance and a number of people were dancing to the music.

Olin was full of interest. "Zyg, I hear that you can play the pan flute with considerable talent. Where did you learn to play so well?"

"My father was a concert musician in Warsaw and I learned so that I could give lessons to others in order to pay my university fees in order to study chemistry."

Olin smiled. "Chemistry? How very interesting. Do you know how to make gunpowder?"

Zygmunt smiled. "Certainly, 66 parts saltpetre, 17 parts sulphur and 17 parts charcoal, as any good anarchist knows." He finished in a morbid joking reference to the homemade bombs of revolutionaries.

"Where can you get saltpetre?" asked Olin.

"From Jake Lorrent's manure piles at his livery. The piles at stables have been the source through the ages. We would have to order pure sulphur through one of the storeowners, perhaps Mr. Macnock."

Andre listened with keen interest. The thought of making explosives intrigued the boy. And the thought of blowing things up was even more so.

"And we know where to get the charcoal," Olin said as he patted Andre on the back. "Andre has made a great lot of it."

Andre laughed. "So, with burnt wood, horse crap and sulphur we will make gunpowder! It is so hard to believe that something that explodes can be made with that stuff except maybe the sulphur, like in matches."

"Why do you want gunpowder?" Zygmunt inquired of Olin.

"For two reasons," Replied Olin. "The first is perhaps to help shatter large boulders by loading it into your drill holes. Thus we would not have to wait for winter to freeze the water in them."

"That sounds like a good idea. What is the second reason?"

"I don't know yet," Olin replied, "but I am sure some need will arise. Can you safely make it without blowing up yourself or the boys?"

"I can guarantee that I shall not disappear with a flash and a bang. The boys might be another matter," Zyg said as he jokingly eyed Andre who became uncomfortable at the thought.

"I wish you to stay at the Rocks permanently and not depart at the time of spring," Olin informed Zygmunt. "The boys will build you a cabin both for your living and to establish a chemical shop. I will provide all of the equipment and substances that you might require to establish a business."

Zygmunt nodded agreement. "What products do you desire to result from this? Besides gunpowder."

"The first is cloth dyes. Are you familiar with the Madder plant from which "Turkey Red" is obtained, and of the indigo and woad plants for blue?"

"Yes, and other dyes also," Zygmunt confirmed.

"Very good. There is a strong market for those dyes. It is remarkable that while a dye adds no greater wear or warmth to the clothes, people are willing to spend more upon the dye than upon the cloth. In the fourteenth century the town of Erfurt, Germany had enough income from the woad plant trade that they could afford to establish a university."

"Olin, I think I will go off and find a single woman to dance with." Zygmunt then pushed through the crowd until he stood before Mary Eldor, a woman of about thirty years, fair complexioned, blonde and blue eyed. Her looks were not striking, which perhaps answered the question as to why she had not married but Zygmunt was taken by her resemblance to the Polish girls he had known in Warsaw. He politely asked her to dance and when she smiled acceptance they went to join the gaiety of the jostling group of people in front of the fiddle player.

Olin turned to Andre with instructions. "You and the boys must build the cabins for Zyg and his shop before snowfall."

Andre was puzzled. "How do they get a red dye from birds?"

"It is not from turkey birds. It is from the Madder plant and the name "Turkey Red" refers to the country and not a bird. The Turks live in Turkey as the Germans live in Germany."

When the dance finished Zygmunt returned to their side. "The lady has invited me to dinner next Sunday. I must tell you, some men search for a skyrocket of romance but the brightness and colors of that last only a short time. I am searching for the continuous warmth of the glowing hearth and perhaps I am upon the right trail of it today. Remember Olin, kissing doesn't last but good cooking does. Now, I must return to Mary to see if she will dance with me again."

Arthur had walked up to a group of five schoolgirls his age and opened a conversation. At short time later Donald walked over to join them. Arthur introduced Donald to the lasses. "This is my friend Donald. He is nice enough but he is a mute. He can not talk."

Melissa Morland had noticed Donald earlier and had thought that he was rather pleasant looking. When she saw him approaching the group she had experienced a sense of mild excitement because she might be able to talk with him. She was now distressed to learn that he had a disability. "I am so sorry to hear of that, Donald," she said in a sympathetic tone of voice to the boy. "Can you not even say one word?"

Donald shook his head negatively and sadly.

Melissa asked Arthur, "What is the cause of his affliction?"

"He was born with a very odd tongue," he informed her with some sadness.

"Really!" from all the girls.

"What is so odd about it?" Melissa asked with mounting interest. The other girls stepped closer, the better to hear the answer.

"I don't know the medical name of it, but it truly is remarkable to see. If you all smile nicely at him and say "please" he might stick it out to show you."

The females were now captured by intense curiosity. "Pleeeeeeease," they said all together.

Donald's lips parted just the slightest bit but they could not see anything yet.

They moved in closer to him. "Pleeeeeeease," yet again from them.

His lips parted further. And then finally they could see it.

"Aheeeeeee! Oh, my God! Help. Run!" screamed the girls. They stepped backwards in horror and then attempted to push through the crowd in order to increase their distance from Donald. Extending perhaps an inch and a half out of his now open mouth was a terrible appearing object. It was rounded in shape, glisteningly smooth and vividly green in color.

The month of December 1854 was filled with both toil and new and exciting experiences for the boys. Within two weeks they had completed the double cabin for Zygmunt and the man quickly set to work in his chemical shop as he concocted various recipes for gunpowder employing different varieties of charcoal and ratios of the other ingredients. The saltpetre had been obtained as white crystals from the base of the manure piles at Lorrent's livery.

During one visit to the rocks Olin had seen an oaken barrel some distance from Zygmunt's cabin. It was beside a large boulder that had a shape that allowed it to be easily climbed. While talking to Zygmunt outside of his cabin he was appalled to see Donald mount the boulder and from a position above the barrel begin to urinate into it as vapor from his warm fluid stream drifted away in the light cold breeze.

"Donald, what are you doing?" Olin yelled out sternly.

The boy stopped his activity in midcourse and turned his face towards them with a chastised and questioning look.

"What's the matter?" Zygmunt asked Olin.

Slightly shocked, he questioned in return, "What's the matter? Don't you see him pissing in that barrel?"

"Yes. I have told all the boys to piss in the barrel."

Olin was momentarily at a loss for words in his surprise at Zygmunt's statement.

Zygmunt revealed the reason. "The barrel is filled with horse manure and I need the extra urine to ferment it so that I can get potassium nitrate crystals after I flow it through wood ash in a couple of months."

Olin finally comprehended the reason for what had seemed to be outrageous behavior. "Saltpetre for the gunpowder?"

"Yes, for the gunpowder. It will be a neater process than crawling around under Lorrent's manure piles."

"Are there to be any other strange occurrences relating to explosives?" asked Olin.

"No," replied Zygmunt. "That is about as strange as it gets. Now it is a matter of using the gunpowder that we have already made from Lorrent's manure."

Zygmunt went on to explain how he was able to construct skyrockets using scrap-printing paper from Trinkem's newspaper press to wind the bodies. He had the lads file large amounts of iron particles off discarded metal objects and mixed that into the rocket's explosive charge. The result would be that orange fireballs would occur

when the rockets burst in the air. He mixed various other ingredients into the propulsive powder so that when the rockets were launched skyward they would emit voluminous white smoke plumes.

Olin was happily surprised. "Entertainment for the masses."

On the morning of Monday, January 1, 1855, Olin walked to Jake Lorrent's livery to rent a horse and wagon on behalf of the railroad. Once the horses were harnessed to the wagon Olin mounted to the driver's box and snapped the reins. The animals stepped out at a quick pace and he headed them to the train barn. Upon arrival there he drove the wagon inside and stopped as near the stack of heavy cast iron wheels as possible. The laborers began hoisting the train wheels onto the bed of the wagon using an A-frame equipped with block and tackle, as the heavy discs could not be lifted in any other manner. As soon as they finished Olin started out over the snow-covered roads to the iron foundry building. The trip took longer than usual as the mares Gertrude and Emily were struggling with the substantial load and Olin simply let them proceed at a pace that suited them. When they finally pulled the wagon into the foundry yard he saw the iron master and two laborers step out of the melting pot building. As they walked up to the wagon Olin called out a greeting. "Happy New Year, Gustav. And you two, also."

Gustav returned the greeting. "Happy New Year to you Olin, and to your boys. The wheels will be pulled off the wagon and onto my open field, as I will not have time to melt them for some months." Gustav pointed out the area to where Olin should drive the wagon and climbed to the box as the two laborers pulled themselves up into the wagon bed. As the wagon approached the designated spot Olin could see that a number of long cylindrical objects lay beneath a thin blanket of fallen snow.

He stopped the wagon, rose from the driver's seat and stepped into the bed of the wagon to assist in attaching tackle lines about the wheels so that they could be pulled off and then allowed to fall upon the ground. As the first wheel was lashed up he stepped back to be out of the way of the massive moving object as the laborers were quite husky and quickly had the wheel sliding over the boards of the wagon bed.

He glanced down at the snow covered objects aside the wagon and realized that he was looking into a lion's maw. A black lion's head, with a circular gaping mouth of some three and a half inches across, was seemingly peering back up at him. The firing end of an ornate cast iron cannon was elevated by another that lay beneath it. The wind had blown the snow off it to reveal a very detailed and life like visage of the king of beasts that was cast as the muzzle of the gun. Olin was enthralled at the fineness of the detail of the animal's head and jumped down from the wagon for a closer look.

He found that there were nine cannons resting under a thin coating of snow. As he cleared more of the white covering away he saw that there was additional decorative detail along the sides of the barrels, those being some five feet in length. He pondered why such handsome artillery pieces were lying there in a heap. "What are these cannon doing here?" he asked Gustav.

"They are to be re-melted," the man answered. "Their type has killed more of the men using them to shoot with than the number of men shot at with them. They were poured and cooled improperly and there are hidden cracks, pipes and blowholes in the metal of them. Are you interested in cannon, Olin?"

"I am interested in metal things and things of beauty. The details of the castings are wondrous. Are they all defective?"

"The truth be told, there is no way but a bad way to discover that. One would have to fire these six pounders a number of times to see if they finally crack and kill the artillery crew. The militia sold them to me for scrap value."

"Are you willing to sell me these cannons?" Olin asked Gustav.

"Why sure Olin, I have scrap aplenty for re-melt so I have no real need of them. I will sell them to you for the scrap price I paid. The weight of each by the captain's reckoning is just shy of 600 pounds. But what do you want cannon for? And possible bad ones at that."

"I don't know yet," Olin shrugged. "I do know that I like the looks of the cast lion's head. Perhaps I will buy them just for the beauty of them, to preserve the art and workmanship."

Gustav laughed. "Olin my lad you are breaking an ancient rule. Do not buy anything that you can't eat, wear or romance."

"Nevertheless, I want them. I will have to arrange for the boys to come by with a wagon and their A-frame to load them with so they might sit here for a while." The foundry master nodded agreement.

Olin bade Gustav good day, drove the empty wagon back to the livery and then walked back to the train barn. He entered it and looked about for Lloyd Adept, finally spying him working beneath a passenger car. He walked over and stooped down to talk to the man.

Hello, Lloyd. I have a question."

"Good morning Olin, what is it?"

"Have you ever rung a cannon?"

The man was silent a minute, searching for the joke that Olin was making.

"I am serious. Have you ever rung a cannon barrel?" Olin asked again.

"No. I have rung a few bells." He wasn't joking either.

"I have just bought nine cannon and I need you to ring them for me to see if you can find any cracks, pipes or blowholes."

"Well, I have searched for such things in bell castings by tapping so I would guess that the idea of it is the same. They are both hollow towards the middle. It is just a different sort of bell. Where can I find them?"

"I will have the boys take them from the foundry field in a wagon and bring them to The Rocks and set them out cross way over a pair of logs with some space between them so that you can get your hammer to all parts of them. They are beautiful to look at. The muzzles are lion heads and cast quite well with much detail of the eyes, ears and hair and such. I will let you know when they are ready for tapping."

Olin returned to his work in the barn and at the end of the day he walked to The Rocks. He found Andre in the cabin with the other boys. The place was full of wood chips and shavings from the waterwheel spokes and other pieces that they had been carving out of oak timber. The drawings for the construction of the wheel that Olin had copied from the book in the library were pinned to the log walls and the boys were following them faithfully.

He cheerfully greeted the boys. "I have some toys for you. Nine cannons. They are at the foundry and you will have to go get them and bring them here so that Lloyd can tap them. Get a horse and wagon from Lorrent on my account."

"Why will he have to tap the cannon?" asked Wolfi.

"Because there might be defects in them that would cause them to explode when fired." Wolfi lost his smile.

Olin explained, "I don't know if they can or can't be safely fired. So, here is the plan. Lloyd will tap them to determine if clearly a flaw exists. If it does we will drive a metal pin down into the fuse hole so that the cannon can never be fired. Now, these cannons are beautiful and they are very ornate with other decorations as well. As I have bought them only at the cost of scrap metal I would suggest to the mayor that the ones that can't be fired be mounted in front of the town hall or in the greens, merely as items of beauty, of art in metal. Now, if Lloyd discovers that one or more have no defect then we will give it to Wolfi."

"Annnnnnd..." the boys asked.

Olin made suggestions to Wolfi. "Well, first you might load them only with a light charge of powder without the ball and fire that off. If it does not kill you then you can apply a half load of powder, still without the ball. We can ask the artillery captain what amount of powder charge should be correct. When that has been fired, using a long fuse in the fire hole I recommend, then you can reload and fire round stones. We have millions of stones and some of them must be quite round and smaller than the cannon bore, I am sure."

The boys clearly thought this was going to be great fun and were both talking at the same time. Olin interrupted them to ask Wolfi, "What is the most common injury to a cannoneer, given that he survives the cause of it?" Wolfi shook his head negatively to indicate that he did not know.

"The loss of an arm," Olin informed them. "After a cannon is fired there can very often be burning sparks left in the butt chamber. If a charge of new powder is tamped in too soon it will ignite and explode. The sheer force of the blast can cause a man's tamping arm to depart from his body. Now, normally a damp swab rod is pushed down the barrel to extinguish the sparks before reloading but when the enemy is rushing in upon them cannoneers have to take the chance and without delay ram new powder down a hot barrel. The result is that they often disable themselves before the enemy has a chance to do it." Wolfi had paled somewhat.

Olin continued. "Now, Wolfi, whatever you do with these cannons you must do carefully and slowly. Do you understand?"

Wolfi nodded. "Yes, I am in no hurry to blow my self up."

Olin had insisted upon paying Lloyd the same hourly wage as he himself earned and after refusing to accept it several times the man finally relented. He and his wife set aside all the money that Olin paid him in order to buy birthday and Christmas presents for the boys and other people.

The determination of birth dates posed a problem in some instances because it was not unusual that a birth at home would go unrecorded at the town hall if a doctor did not attend the occurrence and duly register it. Thus some of the boys did not know

the actual day of their birth and either made a best guess or simply chose a date that appealed to them:

Olin	June 9, 1839	recorded
Judy	April 27, 1839	recorded
Andre	January 23, 1838	recorded
Wolfi	May 6, 1839	guess
Benjamin	August 12, 1840	guess
Arthur	March 11, 1840	recorded
Donald	November 28, 1840	guess
Zygmunt	July 29, 1824	known
Paddy	September 18, 1821	known

As the days of January passed Lloyd continued the task of cannon ringing.

## Chapter 24

On Sunday, January 21, 1855, Olin went to Mr. Hiram's office to meet with a number of the townsmen in regard to their possible investment in The Rocks. When he entered the room there were general cordial greetings from the men who were experiencing happy expectations of future profits. Olin saw Mr. Elliot Segall, whom he had asked Horan to invite, and stepped over to greet him. "Good day, Sir. I wish to thank you for your kind and just verdict of last November."

Segall pulled himself up to his full rather short height as he had been in a depressed slump. "I did my duty as I saw it," he replied. "We have our differences but at least you spoke well of my love and devotion to the Good Book. I would think that no one could speak so benevolently of it and be truly evil. Perhaps I have been too quick to suspect you of sacrilegious activities."

Olin considered that to be progress. "Do you know why you have been invited here today, sir?" Segall admitted ignorance as to the reason.

Olin told him. "I believe that you are a competent accountant, regardless of anything else. There may soon be need of a good accountant. Before we begin this meeting I wish to know if you will accept my nomination of you to a post of employment as an accountant?"

Segall stepped back in surprise and initial doubt. "Is this a trick or joke at my expense? Is that why I have been invited? To provide amusement for the others?"

Olin reassured him. "This is a serious offer of honest employment."

"It appear as a Godsend," said Segall with emerging hope; as he realized that the offer was being made with all seriousness. His sense of relief and new happiness caused him to relate to Olin more than the lad cared to know. "Since the bankruptcy of the White Mountain Lumber Company I have been without income and am nearing the exhaustion of the small amount of savings that I had set aside. Much worse than that I am being plagued by the churlish and complaining words of my wife who claims that I am failing as a husband to provide properly for my family. And she asks how could a man who floundered in his husbandly and fatherly duties be given authority to read and interpret scriptures to the family? That has cut me to the quick."

Olin maintained a blank expression.

Segall went on in an agitated manner. "My mother-in-law is happily encouraging my wife's rebellion to prove that she had been correct when she had advised her daughter not to marry such a man as myself. Only with full employment can I reassert my manly leadership of the family and put the females back in their submissive places for which God had designed them."

Segall was compelled by his situation to speak in a somewhat perplexed voice. "The problem for me now is that my potential salvation from the nags is coming from a person whom I had previously condemned as a Satan. Might I have to sell my soul to the devil in order to claim my right to the bible?"

Olin encouraged him. "It will pay the same as your previous salary."

Segall's mouth was dry. He did not consciously realize it but he had an "authoritarian" psychological make up. He would submit unquestioningly to people in



authority without even realizing it. On the other side he would have instinctively and unthinkingly convicted Olin as a person below him in caste had it not been that the lad had glorified his energetic works with the Good Book.

But now it appeared that Segall was an unemployed accountant while Olin was a prospering entrepreneur and that placed the lad higher on the ladder of authority. His instinctive compulsion to submit to those above him, and the companion compulsion to dominate women, was relentlessly driving Segall to accept the nomination. This was a matter of paramount importance to the man's psyche.

Olin knew that if Segall agreed to the offer of work the man would be crossing a psychological bridge that would be burned behind him: Olin would become the person in authority and Segall would submit to that fact. Permanently. The thing could never be undone.

"Yes, you may nominate me," Segall finally replied.

Olin held out his hand. He was aware that often the staunchest friend a person could ever have was an enemy that had been converted to brotherhood. Segall hesitated for a moment and then firmly grasped and shook his hand.

Mr. Trinkem was calling the men to order and Olin turned his attention to them. Present were Trinkem, Hiram, Hastings, Herman, Horan, Lewis, Lorrent, Macnock, Martinmon, Perkins, Scalodi and Skanter. The editor turned towards Olin and invited him to initiate the meeting. Olin stood near a window as the men sat in chairs scattered around the room. "Gentlemen, I hope that you are having a good day." There were murmurs of returned greetings from the men. Several had glasses of bourbon in their hands.

Olin continued. "I believe that the reason we are here today is that you wish to make some form of investment in The Rocks." here were murmurs of agreement.

"Well, let me begin by saying that when I purchased The Rocks I meant for it to provide for only the boys, myself and our future families. The boys needed to be rescued from their miserable existence, and for my part I was very sure that I did not want to spend all of my remaining working days under the thumb of Mr. Martinmon." There was light laughter and some fun poking at Martinmon.

"The first thing that I must state to you is that I will always be the sole owner of The Rocks and everything upon it," he informed them, "and when I pass away I shall will it to whomever I please." This caused some furrowed brows, as it seemed to mean that Olin would not accept their offers of investment.

He did not leave them long in their discomfort. "Now then, what seems necessary is that we discover a means by which any of you may invest in The Rocks, realize a good return, but yet never own an iota of it." This caused speculation that he was about to make a recommendation.

Olin continued speaking. "There are ships that sail out of Boston that are owned exclusively by a single individual in the majority of cases. However, when the ship is being planned for a voyage the owner approaches businessmen to invest in both an outgoing cargo and a returning one. For example, a group of men might invest in the purchase and loading of wood ash aboard the ship, destined for the soap makers of England. If the businessmen manage it well they buy the ash in Boston at a low price

and then it is sold in London at a higher price, some of the profits being assigned to the ship owner to account for his vessel, his crew and himself, and the remainder put into an account for the investors.

Upon the return voyage the ship might stop at some distant port that has mahogany wood for sale, and purchase the same at a low price using the money previously earned from the sale of ashes. Upon arrival back at Boston the wood is sold at a higher price to furniture makers and the profits shared out properly."

The men seemed to accept that there might be profit in such a manner of doing business. Olin continued. "In regard to The Rocks, the boys and myself will construct a waterwheel to drive a saw and gristmill. I will own these things and pay out a share of any profits that are eventually realized, only to my crew of boys.

Now, as businessmen you could for example arrange to procure raw timber to be cut at my sawmill into boards for subsequent sale both up and down river. In the same manner as the ship's owner who does not buy the wood ash, but instead leaves that profit activity to the businessmen of Boston, I would not buy raw timber, leaving that to you. I would simply make a fair charge for the sawing of it. In the same manner when grain is ground into meal or flour between the grist wheels, the mill owner takes a percentage as payment, one thirty second, I believe."

Some interest shown in the calculating eyes of the townsmen but they had hoped for something more lucrative. Olin was not yet finished. "Now, I propose that you create an association. And let us imagine that as members of that association some of you enter into an investment to procure timber logs to be sawn at my mill into boards that can be sold at a profit. But the timber man says, nay, he will not sell you the timber but instead he will bring the timber to my sawmill to be cut."

None of the businessmen could perceive anything what so ever in this that would gain them a profit. They remained silent and somewhat brooding.

"But I respond to the timber man in a certain way. I tell him that I saw boards only for the association. And my boats carry up and down river only the boards of association members. If he wishes he can take his logs to a more distant saw mill but that would be much cost, time and trouble for him."

The interest of the townsmen increased markedly as they suspected that an owner of new felled timber anywhere near the town would decide to sell it to the association and be done with it. The principal reason would be that the association's lumber sawn at Olin's mill could be sold at a lower price than lumber transported to and sawn at a more distant mill. They would be able to undercut the price in the market place.

Olin continued the discussion. "And the only iceman that can buy the sawdust for the preserving of lake ice in storage during the heat of summer is the association member, Mr. Skanter. Now also, there are fish to be had in the river. The boys can build a fish and icehouse, perhaps two miles down river from their cabins, the labor to build it being paid for by several of you as an investment. And you can hire and supervise workers to catch, clean and pack the fish. The only ice for the preservation of the fish that the association would buy is Mr. Skanter's. The only paper to pack the fish in would be purchased from Mr. Macnock. The trash of the fish house will be converted to

fertilizer. You will pay a land rent to me but still make a good profit in the end."

Mr. Skanter's face had brightened as he listened to the plan.

Holding their close attention Olin went on with the discussion. "And you can also invest in the construction of a road to be made by the boys to the building so that Mr. Skanter can deliver his ice in and haul the cooled fish out to markets."

"That road sounds as if it would be a difficult task," observed Horan, the stonemason.

"Do you know what a "dug out log" means?" asked Olin.

"Of course," the man replied. "A log is laid upon the ground and then it is cut into and hollowed out with ax and adze along its top length so that a trench is made into it. If the work is stopped before either end is reached then a sort of canoe has been made. What has that to do with making a road through piles of rocks and stones?"

"Everything," Olin replied. "Think of smaller logs being hollowed out, and all the way through to each end. Let us say that the logs are only six inches in diameter but fifteen feet long."

Horan laughed at the image. "Then you would have leaky canoes for dwarf Indians." The other men laughed at the thought of it, also.

Olin continued in all seriousness. "So, we imagine that you, Sir, are going to construct a series of concrete posts fifteen feet apart. At the position of each of these foundations, the boys first clear out the rocks and then dig down four feet or so into the earth beneath, in order to reach below the frost line.

You then form and pour the concrete footings with retaining bolts embedded into their top surfaces, which are perhaps a foot above the rocks. Upon these we lay a series of the "U" shaped dug out logs, open side upwards, end to end, and these are duly held in place by the bolts."

"It sounds like some sort of long, elaborate rain gutter, one foot above the ground," laughed Horan. The other men also laughed at the image that formed in their minds. Segall wondered if he had just recently made friends with an idiot.

Olin ignored the laughter. "You lay out two lanes of these footings with the dug out logs upon them, a distance apart equal to the spread between a wagon's left and right hand wheels. Now, you would have a double track of "U" shaped wooden rails that wagon wheels can run in. Thus wagons can now be easily pulled along these rails by horses. The hollowed out "U" shape of the rails prevents the wheels from slipping off." The room was absolutely silent as the men were stunned by the simplicity of the scheme.

"The horse can trod upon the stones between the rails in order to pull the wagon along because the larger rocks would have earlier been pulled to the side by block and tackle. The path is made especially easy for the horses if they are fitted with wide, wooden "rock shoes" to spread their hoof print and give them more stability. Thus the work to construct the desired road had been reduced to perhaps a thousandth of what it would have otherwise been."

Horan began to applaud and one by one the other men picked up the cadence.

Olin held up his hand to silence them and continued the description of the association. "As to the grist mill, the only grain to be milled is the grain of the association

members. If a farmer does not want to sell his grain to the association then he can cart it to a more distant mill." The room was filling with the sounds of interested and happy murmurs.

Olin needed to convey the fact that the plan was ethical. "Now, for example, a timber man can refuse to sell trees to the association and move his logs further away to another mill to be sawn. The farmers can move their grain further away to other gristmills to be milled. We do not in any way interfere with their enterprise. But, if the timber man agrees to sell the logs, then the association will employ its teams of horses, sleds and chains to bring the timber out and to the sawmill. Thus the timber man need not have the trouble and expense of maintaining draft animals and men as handlers of the teams.

Mr. Lorrent and other association members will invest in those animals and equipment. They will care for them and employ them for the uses of the association. They will be paid out of the profits that the board-lumber or milled grain finally brings at sale. And the boys of The Rocks will be the handlers of the teams as well as the ones that saw the wood and mill the grain. And the same horses and the association's wagons will haul the grain, bought and paid for at the farm by the association, to the gristmill and then haul the association's flour out to markets.

Or by boats, up and down river, beside the cargo of the sawn boards. Now, there are also more distant markets and Mr. Martinmon is proposed as the shipping agent by railroad for salable goods departing from here and for needed supplies for the association's endeavors entering the town. And there will be needed harnesses, tools, wagons, feed, raw stock metal, and other needs that Mr. Scalodi and Mr. Macnock will be privileged to supply. The animals of the association will have need of veterinarian services and Dr. Herman has training for animals as well as the human body."

Olin paused to see if there were any questions or comments from the townsmen but they had been raiding Hiram's bourbon supply during his talk and sat or stood about in a mellow manner waiting to hear more.

"Now, there is a bridge to be built over Hartish Creek and good Mayor Hastings has in his wisdom refused to pay royalties to outsiders and has proclaimed that the endeavor shall be carried out by the association."

"There were cries of "Hear! Hear!" And the mayor was encouraged to arise and make a short speech. The mayor was happily surprised at Olin's description of his decision and as several of the men toasted him with their glasses he began to rise up from his chair.

Olin did not want to lose the moment so he continued speaking. "Thus, the association's horses will haul the association's logs to Hartish creek. And Mr. Martinmon will have the business to acquire the creosote with which to preserve the logs. The lads at The Rocks will saw the lumber necessary to construct soaking tubs that are to be filled with creosote so that the logs may absorb the preservative."

Someone was in a muddle. "Creosote? Are you going to have Indians involved in this?"

Olin drove the talk onward. "And the association's stonemason, here present, Mr. Stephan Horan will haul stone out of The Rocks with which to build the bridge

abutments using the association's horses and wagons. Mr. Horan has the sole right to purchase building stone from The Rocks for any purpose and all other stonemasons must do their business through him. He and I have done good business for sometime now and we have every intention of so continuing."

Once again Olin paused. The townsmen were simply overwhelmed by the sheer magnitude of what the lad proposed, all stood to make good profits and that thought mellowed them more than the effect of the bourbon.

Olin desired that everyone be included. "Money will be needed to finance these endeavors and I am sure that the bank of Mr. Perkins will stand ready with the cash for loans and the interest earned should help his institution to flourish.

Now, there is actually much more to be conceived and carried out but let me conclude for now by naming a final participant. All of the association's activities will require the services of a professional accountant as the reckoning of the books will require diligence and proficiency in such matters. And thus I propose that Mr. Elliot Segall fill the position."

There were nods of affirmation from the townspeople and Elliot Segall knew that from that moment forward he would zealously support and defend any of Olin's actions. And best of all, his wife and mother in-law would now be deeply chagrined that they had ever doubted his manly ability to bring prosperity to his family. Also, if he knew the contents of the accounting books he could easily see where best to invest his own money in the association's projects.

Olin now brought up the matter of the leadership of the association. "Many of you know better than myself how to form an organization, what the bylaws should be, who is allowed to be a member and who is to be elected to lead the enterprise. I leave that entirely to all of you. The boys and myself will not be members of the association, we will simply provide services to it and request a fee in return. Our fate lies at The Rocks and so far at least things are going well."

The townsmen began talking among themselves in an attempt at organization of collective thought and Olin thought that it was time that he left them to their own devices.

He exited Hiram's office and walked to Macnock's store where he found Judy engaged in shelf restocking. She greeted him as he entered the store. "Did all go as expected?"

"Yes," he replied. "Quite well as a matter of fact. The very strange part is that the townsmen could have done this very same thing by themselves years ago."

"The bread does not rise without the yeast," she answered.

"You are correct. All of the ingredients can be mixed and ready but require the spark of an additive before a fruitful result is obtained."

"Who will lead the association?"

"I do not know but it shall not be myself. I have other fish to fry."

"Such as?"

"Well, for one thing we must plan a great mansion to be built at The Rocks."

She was taken by surprise and stood staring at him.

Olin smiled. "A prince can not ask for the hand of a princess unless he has a

castle to take her to live in."

"Are you proposing to me?" she asked while smiling hopefully.

"I have just told you that I can not, as I do not have a castle yet. Also, you have not informed me as to the kind of castle that would suit your fancy."

She moved to a sugar keg and sat down upon it. "Do you really wish me to tell you the kind of mansion I desire?" she asked in amazement.

"Certainly. A man can build a mansion but a woman must tell him what it should contain as regards rooms, halls, foyers, stairwells, windows, porches and any number of other things that a man does not understand." They talked on into the evening darkness, relishing the dream of a grand house in The Rocks.

## Chapter 25

The day of Sunday, January 28, 1855 was sunny but cold. Mrs. Pentahelm had reserved a horse and buggy at Lorrent's livery and had informed the man that she wished to take a long ride in the country air in order to get out of the town and to enjoy the winter countryside that was blanketed in brilliant white snow. Bundled warmly in thick clothes she rode out shortly after noon and took the west road towards the farm of Peter Conway. About two miles along that road was the junction to the north and she turned off in that new direction.

At nearly the same time the sons of the furniture maker Ingmar Olsen, Evian and Glorth, were harnessing a horse to their double bench seat wagon. Their mood was dark and they went about the task in silence. When the wagon was prepared Glorth placed his fingers in his mouth and whistled sharply to alert his father, who was still in the house. The door opened and Ingmar and his granddaughter Samantha emerged, tucking their scarves tighter about their necks to ward off the chill winter air. Ingmar and Samantha climbed to the rear bench and Evian and Glorth mounted to the front one. Glorth picked up the reins and snapped them onto the horse's back. The horse lurched into the harness and the wheels began rolling over the frozen ground.

None of the Olsens spoke as Glorth turned the wagon onto the road north to the Michaud farm and then let the horse find its own path and pace over the solid icy ruts. The Olsen's had heard the rumors of an association that was to be formed by the townspeople at Olin's urging, and which presumably would bring money to those that were included. But their names had not been mentioned and the green bile of envy rose in their throats at having been left out of what would appear to be profitable ventures.

Samantha shivered in her woolen jacket, not with cold but with hate. She understood nothing of the association and she would leave that matter to her grandfather and uncles. But the talk was that Olin and Judy were planning a mansion at The Rocks and that made her seethe with anger. She remembered how Judy had praised Olin during the trial and then later she had seen them walking arm in arm and laughing. Samantha now believed that Olin had encouraged her to accept the attentions of Jacques Michaud, not because he was unprepared for marriage, but because he wanted to be with Judy and not her.

To make matters all the worse Jacques was proving to be a mean spirited dolt and if it were not for the fact that he stood to inherit his father's farm she would have nothing to do with him. The farm was valuable and could be sold for a goodly amount when the time came. And she would convince Jacques to do so and move into town for she certainly had no intention of spending her life in a smelly barnyard.

But, she knew she needed a further plan, because no matter what happened she meant to end up in that mansion at The Rocks with Olin. Even if it meant the deaths of Jacques and Judy. She realized that it would be wise for her to have money in the meantime so she had to use Jacques to achieve that goal. Being of some intelligence she contemplated methods of disposing of Jacques when the time came. She had thought perhaps by infecting him somehow with cholera or some other deadly disease, but she quickly realized that a contagious ailment might also cause her demise.

Finally she settled upon poison and determined that she would visit the library and read as much as she could upon the subject, to learn which poisons were obtainable easily from plants. Those thoughts brightened her spirits as she also considered the fact that Olin was often about the library and perhaps they would encounter each other.

At the turn-off to the Michaud farm Glorth reined the horse to the right and up the north road to follow another set of newly made wagon tracks to the farmhouse. As they neared the building they observed Jake Lorrent's horse and rig standing in the cold air, wisps of vapor periodically flowing from the animal's nostrils and floating slowly away on the cold air.

They guessed that Elliot Segall's horse was in the stable, out of the cold and eating someone else's fodder as the man took good care of his possessions and seldom failed to obtain gratis what he would otherwise have to buy. The Olsens dismounted from the wagon and trudged to the front door of the farmhouse and entered without knocking. Babette Michaud greeted them dourly, as she well knew that Evian and Glorth would gorge at their table but never return the favor in kind. She cursed her husband under her breath for allowing the meetings to be held at their farmhouse.

Upon seeing the mayor's secretary, Samantha greeted her warmly, well aware that the woman had connections that might one day serve her well. "Hello, Mrs. Pentahelm. That is a splendid coat that you are wearing, quite in style and so warm looking."

The woman responded politely. "Why thank you darling Samantha. It is fairly new and yes, it is warm."

Claude Michaud offered the men glasses of his moonshine liquor, which they eagerly accepted. They were good customers of his brew and he knew that with a few free drinks in them they would tend to buy bottles of it before they left for home. Samantha turned up her nose at the odor of the alcohol and she gagged at the thought that she would be smelling it upon the breath of the men for many hours.

Elliot Segall had been to the outhouse and upon entering the room he acknowledged the new arrivals. Because he was openly pro-slavery Mrs. Pentahelm believed that he could be put to use and she included him in the meetings. She was a woman of extensive authority, power and wealth so Segall did not find it difficult to concede to her female leadership.

Seeing that the liquor was free for the taking he helped himself to a glass full of the imperfectly distilled moonshine. Claude Michaud failed to take any great care in his methods of distillation and as a result the drink was rich in methyl alcohol, a moderate poison, as well as the desired ethyl alcohol. He did not know the difference and did not care to know it as long as people bought it.

Mrs. Pentahelm glanced about at the assemblage of what she considered to be members of a lower form of humanity. She thought that perhaps they had less character and self pride than her family's servants. Their names had come to her brother's attention by way of his pro-slavery cohorts in New Hampshire. The drunken talk of these men at the tavern had revealed that they were both vicious and greedy enough to be of service to him. The slave trader Stackton was ever on the lookout for brutes that might



help to disrupt the operation of the Underground Railroad if a few gold coins were offered as payment.

Stackton felt that it was imperative that the link of the Underground Railroad through southern New Hampshire be severed because sales of slaves in states to the south were falling off. People did not want to buy expensive slaves when an easy route lay open for them to escape to Canada. A great deal of money could be lost or gained depending upon the outcome of the matter.

He already had an ally in President Franklin Pierce whose recent words were truly music to his ears. Pierce had said "If the passionate rage of fanaticism and partisan spirit did not force the fact upon our attention, it would be difficult to believe that any considerable portion of the people of this enlightened country could have so surrendered themselves to a fanatical devotion to the supposed interests of the relatively few Africans in the United States to totally abandon and disregard the interests of 25,000,000 Americans." His words were intended to make the abolitionists appear as raving senseless fools.

The Olsens and the Michauds were also vastly encouraged by the president's slanders against the abolitionists and read into them the license to wreak havoc upon any one that spoke out against slavery. They assumed that someone as powerful as the President of the United States would prevail in the argument, and they intended to be on the winning side. When the promise of money was made in return for wanton acts of destruction against the person and property of abolitionists the Olsens and the Michauds had been quick to offer their services. They had been told that Stackton's sister, Mrs. Pentahelm, would arrive to organize them when the proper opportunity arose.

Prior to Mrs. Pentahelm's arrival, the Michauds had advised Stackton by letter that the widow Sneider was frail in health and might pass away in the near future and that his sister should be prepared to journey northward to replace her. The post of secretary to the mayor was to be prized, as it would allow her access to a wealth of information. Stackton had agreed and told them to inform him as soon as the widow passed away.

The vacancy was not at all a surprise to the Michauds. They had tired of waiting for an opportunity to gain income, which was contingent upon Mrs. Pentahelm's arrival. Always an obedient son, the sixteen-year-old Jacques Michaud, had at his father's direction entered the widow Sneider's home in the dark of night and smothered her with a pillow as she slept. The body had been discovered four days after her demise by neighbors following their noses. The good Doctor Herman, not having cause to suspect otherwise, ruled that the old lady had peacefully passed away in her sleep.

Stackton had sent his sister Mrs. Pentahelm, to fill the vacancy when he received a telegraph message from Babette Michaud indicating that "a door had opened" meaning that the position of secretary had opened at the mayor's office.

The people that now sat in the Michaud's dining room were not in a contented mood. Ingmar Olsen glowered at Elliot and opened the discussion in a degrading tone of voice. "So Segall, you are in the pay of that so called association, are you?"

Segall recoiled slightly and responded with defensiveness. "They pay me well

enough to keep the books and as you know the White Mountain Timber Company went bankrupt and I had no real alternative to accepting their offer. Besides, what is your complaint? It allows me to know all that they do. It is not unlike the fact that Mrs. Pentahelm works for the mayor as his secretary."

In reality Segall had changed allegiances and now was an informant for Olin to whom he owed his newly regained control of the women in his life. He was willing to face danger from the people in the room as the reward for taking such a risk was his well paying position with the association, and very much more importantly, his cherished domination of his female family members.

Ingmar looked sourly towards Mrs. Pentahelm as he complained. "Much time has gone by and still no real amount of money has been delivered to us by your brother as he promised."

She displayed a reserved calmness. "He promised you compensation for deeds done, and none have been done yet."

Glorth did not require moonshine to be surly but it certainly enhanced that aspect of his character. "Well, damn it, we know the mayor is an abolitionist so we'll torch his house and then that will be a deed done!" He swallowed another large mouth full of the impure brew.

Evian was rapidly becoming inebriated, as was his habit. "Yes! That's right! We can ride there tonight and get the job over."

Their father did not attempt to quiet them even though he considered them to be fools (dam their mother for their bad genes, he thought to himself). "Or shoot the bastard. Say the word and it is done. We are tired of waiting," growled the man.

Samantha was not paying attention to the conversation, as her mind was busy attempting to devise methods to drive a wedge between Olin and Judy. She was also wondering by what means she could deliver poison to Jacques and that soon became obvious to her as the stench of Michaud's moonshine assailed her nostrils. She was sure that she could pour skunk piss into a glass of it and Jacques would never smell or taste it over the liquor's bite upon his tongue or its malodorous odor in his nostrils. She smiled at the fact that the tiresome visit had brought a solution to her quandary as to the method of delivery of the emancipating potion.

Mrs. Pentahelm responded firmly to Ingmar Olsen. "No. The time is not right and you are just going to have to be patient. The fool of a mayor does not know how to keep his mouth shut and has let slip that there is going to be a significant abolitionist meeting in this area sometime soon. That is a very important matter for us to learn the details of and to pass on to my brother and husband."

The men focused their attention upon her as she continued. "If we learn who all the attendees are to be then you can have a frenzy of burning and shooting, just so long as you get them all. I have sent a letter to my brother and he has sent one back to me. He states that he is willing to increase the pay that he will give to you if you have the patience to wait and do the job right."

Greed shown in the men's eyes upon hearing her words. But Ingmar's avarice fueled Ingmar's impatience. "Well, when the hell is the meeting to take place?"

"It has not been clearly decided upon, perhaps within three months time," she

replied.

The men sulked at the thought of further waiting. She warned them. "If you do anything to any abolitionist hereabouts it would scare off the others that would be coming to the meeting. We would never learn who they were or anything of their plans. My brother instructs me to inform you that if that undesired situation should occur, then there would be two results." She paused to assure that they were listening closely. The men took sips from their glasses and eyed her sullenly, wondering what the two results would be."

She spoke again, evenly and coldly. "The first is that you would forfeit any claim to money."

The men glowered at her. They had expectations of the increase in income and they were not in the mood to hear that it might not come to pass. They were eager to descend upon the abolitionists with torch and gun as soon as they were given the instructions to do so and earn their payment and anything of value that they could steal from the victims. Claude Michaud, who had already commanded a murder, prompted her. "And the second result?"

She looked at each of them in turn. Though they were abusive and aggressive she had no fear of them. Finally she answered. "If you fail to allow the meeting to occur, and further, if you fail to learn the who and the what of the meeting...my brother will have your houses, shops and barns burnt to the ground..."

The men jumped to their feet slopping liquid from their glasses and with heated anger upon their faces. "The hell you say!" Ingmar bellowed.

Samantha stood distraught at the woman's words. Her plans hinged upon gaining the value of the Michaud farm and if the buildings were destroyed there would be less value to it. And if her grandfather's shop were razed they would become poor due to a lack of income.

Mrs. Pentahelm continued. "And your women raped..."

That did not very much concern the men. Nor the women present either.

"And all your throats slit," Mrs. Pentahelm stated with vehemence.

That did concern them all and they stood frozen in place with their mouths agape, their eyes bulging in their sockets, rage and hate showing upon their contorted faces.

"And if you put one finger upon me...then the very same," she concluded.

Segall slowly rose from his chair. His face was ashen as he stumbled to the kitchen sink, leaned over and vomited into it. The cause of that could have been sheer terror, bad liquor or a combination of both.

Babette Michaud had her hand to her mouth in horror at the thought of her throat being sliced open.

Tears of fright were streaming down Samantha's face and she was mumbling. "Dear God please save us, Oh, please, dear God..." Her greatest dread in life was the thought of her own death and now suddenly there was the possibility that it might occur at an early age. She was horror stricken and full of anxiety that her stupid male relatives might do something to bring about their bloody murders. In her mind was a vision of herself lying in a casket with her throat slit open.

Mrs. Pentahelm coldly looked at each in turn. She rose slowly from her chair. "My brother has done it before, by his own hand. Now sit down and calm down," she demanded.

They all did so except for Samantha who still stood crying, unable to command her legs to move as her mind was consumed with thoughts of her own bloody death. The sphincter of her bladder failed her and urine dribbled down her legs to puddle on the floor.

She instructed them. "You will do nothing to ruin my brother's plans. I warn you! Nothing! You will go about your business as usual and not cause any suspicion. I will let you know your next instructions when I discover when the meeting of abolitionists will take place. Now, I will return to town, as I can not bear the thought of eating at a table with any of you."

She pulled her coat tight about her and strode out of the front door. As she mounted into her rented dray she knew that she would recommend to her brother and husband that all their throats be cut once they had served her purposes. It was not safe to leave such fools alive to give it all away in drunken talk.

The others in the house sat silent in their seats. Samantha had slowly sunk to the floor and was sitting there sobbing in pools of her urine.

Her grandfather growled, "Shut the hell up, Samantha." He felt the need to be in control of some part of his existence. "Evian, you damn drunk, get out to the wagon. You too, Glorth, and take Samantha with you. Segall, you get the hell out also." Segall stumbled down the hall to the back door and departed through it to retrieve his horse from the barn.

Ingmar rose. "I will be glad when that damn abolitionist meeting happens. I don't like this damn waiting. And there are some scores that need to be settled with members of that commission." He had spat out the words.

"I don't see no damn other thing we can do but wait," said Claude. Then in an attempt to salvage some benefit from the meeting he asked, "Do you want to buy a bottle for the trip back?"

"Yes." Then after a moment, "Make it three." The man paid and then turned and walked out the front door to climb into the wagon. "Shut the hell up with your crying, Samantha!" he yelled, as Glorth snapped the reins and the horse leaned into its harness.

## Chapter 26

February of 1855 started out bitterly cold. In spite of that the boys had made a concerted effort to build yet a second two-room cabin at The Rocks. This one was for Olin who had decided that it was time to leave the library storage room for good. He rightly suspected that just about everybody in town had ultimately become aware that he had been living there but had seen no cause to complain about it. On Wednesday, February 7, 1855, he made The Rocks his home.

During the evening of that same cold day Sheriff Joel Trammell sat at his kitchen table after the supper plates had been cleared away. In his hands he held an 1851 Colt Navy .44 caliber revolver, its seven and a half inch long octagonal shaped barrel glinting in the light of the oil lantern. He slowly began to disassemble the revolver in order to clean and oil it. As he sat that February evening he brooded over the fact that Jarad Hortmuller had for the second time escaped from the Concord prison, strangling a guard to death and obtaining his weapon in the process. The sheriff could not guess in which direction the murderer would flee so he hoped for the best and planned for the worse. Upon learning of the escape by telegraph he had visited with all of the businessmen of town asking that they quietly inform him if a stranger with only one good eye was asking after a person named Abraham Donworth, the alias that Olin had used when he manacled Hortmuller in his cell at the jail.

The sheriff guessed that Hortmuller's psychotic nature would compel him to wreak revenge upon anyone that ever crossed him and especially a lad who had been the first person to ever fasten iron manacles to his hands and feet. The sheriff berated himself for having had a lad like Olin perform the shackling when he should have asked that Martinmon or one of his adult laborers perform the task.

He reassembled the cleaned gun and he loaded it by slipping the .44 caliber shells into the smooth walled cavities of the engraved cylinder. The sheriff stood up to insert the Colt Navy, the favorite weapon of Wild Bill Hickok, into his cross-slung holster. He was right handed but holstered the gun on his left side, the butt to the right for easy withdrawal by his best hand. When he was mounted upon a horse or seated at a table it provided him the swiftest access to the weapon.

At The Rocks all was going well. Olin had deposited sums of money into each of the boy's bank accounts at year's end and they were content to let it lie. On January 23, when Andre had turned sixteen the Adepts had given him an excellent pair of sturdy but soft leather boots. Other of the townspeople were quick to pass on to the boys articles of functional clothing that members of their own family had outgrown so the boys were spared those expenses. Between times of building log cabins, constructing the water wheel, attending school and a number of assigned chores, they still managed to earn money from hot stones and entertainment on the railroad line.

The falcon named Wings had been capturing numerous cottontail rabbits among the boulders, bushes and brambles. This gave the boys an abundance of winter's thick furred rabbit hides for sale to the seamstress, Hanna Gray, at a good profit. Andre had been taking French lessons from Olin's aunt Henphra who was fluent in the language and because he had spoken French as a young child it returned easily to him even

though he had not used it for years. As the association coalesced into a functional business organization there had been transactions with French speaking loggers and Andre had been hired as an interpreter.

The timber trees procured by the association would be felled and brought out to The Rocks with the advent of the first warm weather and some of them would be used to build the sawmill and gristmill. The sawing of other logs into planks for the association would pay for the cost of the lumber Olin required. Thus there was no need for Olin to hand over cash for his building material.

Wolfi had been studying artillery and looked forward to the day that one or more of the cannon could be fired. So far Lloyd Adept had determined that three of the cannon were defective and needed spiking, and two were satisfactory for firing. It would be some more time before he could reach a conclusion on the remaining four. Because there were at least two good cannon Wolfi asked Olin when he should test fire them.

Olin suggested, "Perhaps we can fire them for a crowd on certain holidays, for example New Year's Eve, in order to celebrate along with fireworks. Are you and Zygmunt still making rockets?"

"Yes, very carefully. We store them in the powder house. Zygmunt has told me which chemicals we need in order to make different colors of bursts and thinks that the pharmacist Lewis can order them for us. Should I tell him to do so?"

"Yes, certainly," agreed Olin. "But as regards the guns, maybe they should be fired in spring or summer so everybody doesn't freeze. What warm weather day can we fire the cannon so that people can have a picnic as well?" The two pondered the possibilities.

Wolfi finally said, "Andre tells me that on July 14, 1789, the people of France attacked the Bastille. It was a prison of innocent people and they freed them. So now France has a Freedom Day and we do not."

Benjamin interjected information. "Our teacher says that one of the most important dates in American history is the fourth day of July when the Declaration of Independence was signed. It is warm weather in July and good for picnics and games."

"If that day is so important, how come it is not a known holiday like Easter or Christmas?" Wolfi asked.

Benjamin replied. "I don't know, maybe someday it will be."

Olin stated the merit of the fourth day of July. "I think that is a good date because the Declaration of Independence applies to everybody no matter which state or territory they live in, their family's original nationality or their religion."

Wolfi asked the obvious question. "What do we call it? The Fourth of July?"

Benjamin disagreed. "No, I think that people would laugh at that. It sounds strange to celebrate a date on a calendar. I think that we should call it "The Declaration of Independence Day."

Olin added his point of view. "I think most people won't say such a long phrase. They will probably just say "Independence Day"."

They agreed that the matter of the cannon firing date was settled regardless of the name given to the day.

The morning of July 4, 1855, dawned with a promise of clear and warm weather

that was quite suitable for the town's first celebration of Independence Day at the town greens. The boys had loaded one of the cannon into the bed of one of Jake Lorrent's wagons and the plan was that Wolfi would fire powder charges in the cannon while it was still in the wagon bed, there being no recoil to be concerned about since a cannon ball would not be fired.

The crowd started forming in the greens at ten o'clock in the morning. The women had set up empty boxes and kegs to rest wooden planks upon that would serve as tables to hold dishes of stew, cooked meats, vegetables, pies, cakes, pitchers of milk and juices along with sundry other items. By noontime the entire town was present and very much in the mood for a holiday celebration.

Dr. Herman and his wife spotted Mr. and Mrs. Trinkem and walked over to greet them.

"This is just marvelous," Herman remarked. "And it was left to young boys to bring it about, as we adults were too busy with other things to stop and enjoy life for a day."

"And they chose an auspicious date," Trinkem responded. "The day of the signing of one of the most important documents the world has ever seen."

Dr. Herman noticed that farmer Michaud was standing just to his right in the audience and bid him good day. Michaud returned the greeting. "Good day to you, doctor, and to your missus." Mrs. Herman acknowledged the greeting with a smile.

Jacques Michaud was standing beside his father and Dr. Herman thought his expression was odd, as if he might be drugged. He then guessed that Jacques had partaken at an early hour of his father's moonshine in a premature start to the celebration.

The town watchman Harvey Moulten was standing a short distance away from Jacques and the inebriated youth began eyeing him with a malicious grin on his face. Harvey was about thirty-five years of age with a solid build, blue eyes and sandy hair that had experienced a great amount of thinning at the front and heralded baldness in just a few more years.

Dr. Herman anticipated that Jacques was about to make some sort of offending remark at Harvey's expense. He was not mistaken. Jacques had a full shaggy head of black hair and he ran his hand through it as he taunted the man. "Hey, Harvey, want to buy some of my hair?" Believing that to be extremely humorous Jacques laughed loudly. Harvey reddened but said nothing in response to Jacques' cruel joke.

Trinkem leaned towards Herman's left ear and spoke in a low voice. "Jacques will come to a bad end some day and there are a few people that believe that all the sooner, all the better." Herman nodded agreement that in general Jacques was not well thought of.

Emboldened by the snickers of a few people in the crowd Jacques continued his badgering joke. "The rate your hair is falling out Harvey, in a week you'll be as bald as the old widow Sneider was," and he roared with laughter at the thought that he had compared a grown man to an old, bald dead woman.

The hair rose on the back of Doctor Herman's neck and his body tensed.

Claude Michaud jabbed his son in the ribs with his elbow. "Shut you damn mouth

Jacques," he demanded, "and keep it shut."

Herman gripped Trinkem's arm and leaning towards his right ear queried him in an agitated whisper. "Did you hear what Jacques said?"

"Yes," Trinkem replied. "He said Harvey was going bald."

"No, not that. Did you hear what he said about the widow Sneider?"

Trinkem reflected a moment. "He said something about Harvey becoming as bald as the old dead widow Sneider."

"Yes!" Herman hissed into the man's ear. "And now I ask you to fix that statement into your memory, for you will be asked about it at a later date."

"What in the world are you talking about?"

"Never mind why for the moment, just be very sure to remember what he said and the fact that I did not tell you what he said. You heard his words with your own ears."

Trinkem gave assurances to Herman. "Very well, I will be certain to remember it." The expression upon the doctor's face was intense so Trinkem repeated himself. "He said that Harvey was becoming as bald as the old dead widow Sneider. But I must tell you, I had seen the widow Sneider on many occasions and she was not bald, so I do not see the sense of his joke."

"Exactly!" responded Herman cryptically as he pushed away through the crowd in search of Mayor Hastings.

The festivities of the day continued and were to the liking of all, young, old and in between. There had been three legged races, regular races, and apple bobbing, a pie eating contest, a log-sawing contest, and numerous other events.

One of the more entertaining events was a performance by Jake Lorrent's trained horse "Mathematics" so named because the horse seemed able to count and perform other feats of arithmetic.

As the crowd gathered around Jake asked the horse a question. "How much is two plus three?" The horse stomped its right front hoof, once, twice, three times, four times and finally a fifth time and then stopped. Lorrent gave the horse a sugar cube reward.

The crowd roared with amazement. Some turned to Jake's wife Katie, and asked her where ever did they get such a smart horse. Katie was a tall thin woman with blue eyes and straight blonde hair. She appeared shy in nature but was well liked by all that knew her. In her shyness at the crowd's attention to her she nervously brushed the hair of her long straight bangs off her forehead with her right hand and smiled while blushing slightly. It gave her a coy and girlish like appearance.

Mayor Hastings stepped forward and made a demand. "Now Jake, he might just have been trained to tap his hoof five times at your first command, so let me give him some new numbers."

Jake readily agreed. "But don't ask such a difficult one that the crowd can not get the answer themselves." There was general laughter. Katie Lorrent ran her hand through her hair and fidgeted with a barrette in an attempt to keep it out of her eyes.

The mayor addressed the horse, oblivious of the absurdity of such a thing. "Very well then Mathematics, what is the sum of two and one and four?"



The horse tapped its right front hoof seven times. The crowd burst into applause and laughter. Mrs. Katie Lorrent was looking all the more embarrassed because of the attention and she fidgeted nervously, still attempting to fix a barrette in place with poor success.

Mr. Martinmon came forward. "Let me give that horse a try." He held hold of the bridle and looking the horse in the eye he posed his question. "Alright Mister Smart Horse, how much is twenty-seven minus twenty-one." The crowd shouted disapproval of the difficult test.

Jake Lorrent held up his hands for quiet and when the crowd was attentive he said, "It is quite alright. I know that Mr. Martinmon is asking the horse because he can not figure out the answer by himself." The crowd laughed loudly and poked fun at Martinmon.

Jake turned to the horse and instructed it. "Mathematics, please tell Mr. Martinmon the answer to his question." The horse tapped its hoof six times. Lorrent then fed it a sugar cube reward.

For a moment the crowd was too amazed to make a sound. Also, many of them could not figure the answer themselves and were awaiting the reaction of others to determine if the horse had correctly stomped it out. Those that knew the result to be correct got over their surprise and burst into roars of glee and strong applause.

Jake advised them to stand back some distance. He swung up into the saddle of the horse and caused it to rear up on its two back legs, whinny, and drop back down. The crowd cleared a path and he raced off across the greens to jump the wooden fence and gallop back to the livery stable. Jake's wife was left as the blushing center of attention. Mrs. Tramell stepped over to her side and helped to pin back her bangs with the barrette as they giggled and laughed.

Wolfi hollered from atop his cannon wagon. "Who wants to hear the cannon being fired?" The crowd roared in anticipatory delight and surged towards the wagon but Wolfi waved them away with a shout. "You have to go the other end of the greens as the sound would be too loud for your ears at this short distance." The crowd obediently started moving to the far side of the greens many remarking upon the lion's head casting at the mouth of the cannon.

Olin walked over to the wagon to talk to Wolfi. "What is your plan "Cannon Man"?"

Wolfi answered, "A quarter pound of gunpowder for the first shot. A six-pounder like this gun can take a maximum of two pounds of charge when actually firing a six-pound ball. Because there is no ball the pressure within the gun will not be very great, as the burning gases will escape easily up the open barrel. Also, there will be no recoil for the same reason."

Olin smiled approval. "You have learned well from the captain of artillery."

"Yes, he was quite happy to give me any advice that he could."

Olin wanted to be assured of safety. "Do you have your wet swab to dampen the butt breach after each shot? We wish you to leave here with the same number of arms that you arrived with."

"Yes." Wolfi pointed at the long handled swab with one end in a pail of water.

Olin walked off across the greens to join the crowd and await the first firing of the cannon. Wolfi loaded the charge with a tamper and then walked to the rear of the cannon where he dumped a quantity of powder down into the fire hole. He struck a match on the cannon barrel and lit that powder fuse, stepping back quickly as it caught as evidenced by a white smoky stream spurting upwards.

When the main charge fired the crowd saw a gust of flame and smoke issue from the barrel mouth and a short while later they heard the boom and felt the concussion. A child said that it had for a moment thought it was a silent cannon because there had been no noise when he first saw the flash and smoke. This was his first lesson that light travels very much faster than sound.

After wet swabbing the barrel and reloading the gun Wolfi lit the powder fuse and the cannon blasted forth its flame and smoke causing jubilation among the spectators, some covering their ears in pretended pain at the loudness of it.

Wolfi wet swabbed the cannon barrel and then loaded a greater load of powder. He filled the fuse hole with powder and lit it with a match. The resulting boom very much impressed the crowd and made small children cry in fear of the noise and smoke. A horse that had been hitched to the fence about the greens pulled loose and galloped off. Wolfi then proceeded to load and fire the cannon four additional times to the great entertainment of the crowd.

The crowd began to disperse and as they did so the men Herman, Trinkem, Hiram and Martinmon, walked over to Olin. Trinkem asked, "How did Lorrent get his horse to count correctly?"

Olin declined to reveal anything. "Why should I tell Lorrent's methods?"

Trinkem responded. "Because we will pay you five dollars each if you do. You do know how he did it, don't you?"

"Yes, but I am sorry, I can not tell you without Lorrent's permission. Besides, once anyone else knows then soon everyone knows and the fun is out of it. Please, just content yourselves with the entertainment of it." With a little vexation the men let the matter drop. Dr. Herman left the group and walked over to Mayor Hastings. "It is too bad that the good widow Sneider is not here to enjoy the day." He made an observation. "She was always such a neat person, very well groomed judging from her attention to her hair, always so neatly curled and set."

"Yes, I thought that she must have set her hair every single night to keep it so nice, but she had few other diversions so what does it matter if she spent so much time upon it. I should hope that my hair would look that healthy when I am at the age that she was."

"Well Mr. Mayor, I always enjoy a chat with you but I have a matter that I must attend to at the moment. I bid you a good day." They tipped their hats and parted.

Olin and Wolfi had been standing near the cannon wagon discussing the upcoming evening display of skyrockets. As Olin gazed at the festive crowd his eyelids narrowed in concentration.

"That is not normal," he said out loud to himself.

"What is not normal?" asked Wolfi.

"Come with me," he said as he started walking in the direction of the mayor.

When he stood in front of Mayor Hastings he politely asked, "Good Sir, do you know the time?"

"Why certainly," Hastings replied as he reached into his watch pocket for his gold timepiece. "Oh my Lord!" he exclaimed, "I have lost my watch. Look about your feet good people and please see if it is lying about in the grass." The bystanders all began searching the area being quite careful where they stepped.

Olin grabbed Wolfi by his arm and moved away from the group. "Do you see the cute young lady with red hair that is carrying a closed pink parasol in her hand? Go over and say hello to her. No matter what she says in return stay very close to her until I come over to you."

Wolfi blushed red. "Talk to a strange girl? Are you kidding?"

"No. Go do it. Hurry." Olin pushed him a little along.

The crowd was still large but Olin had managed to keep his eye on another young girl and now he hurried after her. As he came up to her he smiled and introduced himself. "Hello. I am Olin. What's your name?"

By reflex she replied in a surprised voice. "Gracie."

She was a very attractive blonde teenage girl and obviously a stranger in town, as he had never seen her before. "You're new to town. Where are you from?"

"Boston," she replied.

He glanced in the direction where Wolfi was standing with the young red haired girl. "What is your friend's name?"

"I don't know that girl," she lied.

"Yes you do."

Gracie's eyes searched for an escape route.

Olin informed her, "I can run faster than you can."

"What do you want from me?" she asked with a mixture of bravado and apprehension.

"I want you to return the mayor's gold watch."

"I don't have any gold watch."

"I know that. She has it in her parasol where you put it after you took it from the mayor." He nodded towards April and Wolfi.

In an offended voice Gracie exclaimed, "You're crazy."

He reached down and grasped her hand tightly. "Walk with me over to Wolfi and your friend."

She tried to pull away. "Let go of me."

Olin called out to Sheriff Tramell who was in a conversation with Mr. Scalodi some twenty feet away. "Sheriff. Can you come over for a moment and meet someone?" The girl's shoulders slumped dejectedly and she stopped struggling. The sheriff walked over to them as he smiled in anticipation of a polite introduction by Olin.

Olin smiled back at him. "Sheriff Tramell, I wish you to meet Gracie. She is visiting from Boston."

The sheriff tipped his hat to the girl. "Good day, Miss Gracie."

She made a shallow curtsey and managed a smile. "Pleased to meet you, sir."

Still smiling Olin lied to the sheriff. "Gracie is a third cousin of Judy's and is here

for a visit and that is why you have never seen her before."

That caused the sheriff to peer more closely into her face. "That's right. I am sure that we have never met. Are you enjoying your visit?"

"It is not like any other visit I have ever had," she replied in honesty.

The sheriff tipped his hat again. "Well, glad to have made your acquaintance but now I must return to my office. Good day to you both."

At the lawman walked off Olin spoke in a low voice to the girl. "He knows your face well now and could easily search you out if the need should arise."

Gracie accepted the situation. "What do you want me to do?"

"A sort of magic trick. I want you to put the mayor's watch back where you got it from without him realizing that you are doing it." He motioned to Wolfi who took the other girl by the arm and walked her over to where Gracie and he stood.

"This is April," Wolfi informed him.

With an expert's quick action of hand Gracie surreptitiously reached into the parasol and swiftly retrieved the gold watch without anybody noticing a thing, not even Wolfi.

Olin conducted them all back across the greens to where the mayor was standing with a forlorn look on his face. As they approached the mayor spoke to them in a dispirited voice. "I have lost the gold watch that my grandfather had given to me. I feel horrible."

Olin pointed off to the right in the grass. "Have you looked over there?"

The mayor's head turned for a moment in that direction and unbeknownst to him the watch was instantly placed back into the fob pocket of his vest.

"Or perhaps sir, you have not fished the correct pockets of your vest for it," suggested Olin.

"Oh! But I have and it is gone for sure." He reflexively reached for the usual location of the watch to prove the point and as he did so his face brightened into a surprised smile. "Praise the Lord! It was here all the time and I somehow overlooked it!"

Olin nudged Gracie and they walked off a short distance from the group of people that were marveling at the seemingly miraculous reappearance of the mayor's timepiece. Wolfi and April walked along with them.

Gracie narrowed her eyelids questioningly. "How did you know?"

Olin thought better of revealing that he had simply been observing a very pretty blonde girl as she ambled in the direction of the mayor. Instead he told her, "As you approached the mayor you were not doing a normal thing."

Wolfi remembered him making such a remark. "Yes, you said that but I did not know what you meant."

Olin explained. "As you neared him you did not look directly at him but instead a little off to your left. That was to allow the seeming accident of your bumping into him. You were acting the fluffy minded schoolgirl who was not watching where she was going. It struck me odd that you would not notice him out of the corner of your eye, as clearly he is not a small person. But what you didn't do next was surely not normal at all."

Gracie was somewhat confused. "What I didn't do?"

"Yes," said Olin. "You did not turn towards him and apologize, as any young girl would do with a slight curtsy. He turned towards you to say, "Excuse me" as any gentleman would do but you continued to keep walking with your head turned away.

I asked myself why you would do that and guessed that you did not want him to get a good look at your face. If that were so then you were probably guilty of something. Then I saw you pass by April and your hand quickly flicked out towards the closed parasol that she was carrying. But neither of you looked at the other as you passed. You were pretending that you did not know each other. In a dense crowd I probably would not have seen any of it but here on the greens I had a clear view."

Gracie was suspiciously curious about his reasons for doing what he had done. "Why didn't you alert the sheriff and have us arrested? Do you expect that April and me "will be nice" to the two of you?"

Wolfi's eyes widened slightly as his imagination cranked. April smiled at him flirtatiously and moved a little closer.

Olin ignored the question and posed one of his own. "What are you doing in this town? You might as well tell me the truth because if I believe that you are not then I will take you to the sheriff's office."

Gracie shrugged in resignation. "The police caught my grandmother and her friend at the Boston train station last night. The constables saw us also but we managed to squirm through the crowd and sneak onto the train just as it was leaving the station. Some people on the train told us that there would be a celebrating crowd here at the town greens today so we got off at this stop in hopes of getting some money for food and train tickets to Manchester or Concord."

"What do you think the fate of your grandmother will be?"

Gracie answered with some glumness. "The judge knows her well and had warned her that the next time she appeared before him the sentence would be two years."

Judy noticed the four of them standing and talking and while she would trust Olin with her life she was not absolutely sure that she wanted to trust him with such an attractive blonde girl. She sauntered over to them.

Olin greeted her. "Judy, I would like to introduce you to two thieving pickpockets. They are Gracie and April."

Judy at first thought perhaps it was a crude joke but that would be very unlike Olin and thus she took his statement at face value. She waited for a further explanation as she stood looking at the two attractive girls.

Olin said, "I would need to talk to your grandfather but I believe that honest employment can be found for these two wayward souls."

"Really?" was all Judy could muster. She wondered why her grandfather would have any interest in pickpockets?

"Mr. Macnock has just recently decided to fulfill his life's dream and become the proprietor of a very private gourmet establishment of the highest caliber," Olin informed the girls. "The clientele will be from among the elite of society. The fair Judy that you see standing here will be the chef of that establishment."

"You are making me hungry but what has any of this to do with April and me?"

asked Gracie.

Olin explained. "On any given evening there probably will not be more than four tables to be served. You two are fair looking and thus probably would not spoil anyone's appetite as you set out food and wine. The ambience, or milieu, is of considerable importance in such an establishment, both in the selection of a decor and of a staff." The four stared at him blankly as they were devoid of any understanding of his last statement. "The place must look top notch and the same for the staff," he explained in the vernacular of the masses.

With the group now enlightened he continued addressing the two girls. "In addition to serving the clients you would assist Judy as she prepares the gourmet dishes. You would also perform all of the cleaning of the dinnerware, utensils and the kitchen. You should expect that the tips and salary would earn you much more than the filching of watches ever will. You will eat well and you will not have to constantly look over your shoulder to see if the sheriff is sneaking up behind you. You will have adequate free time and you will attend school classes with Judy."

Gracie and April glanced at each other and their eyes asked if they should accept the offer or slip away at the first opportunity. Olin sensed their thoughts. "If you run off the sheriff will have an alert out for you by telegraph in a very short time. Then it would be into the jail with you."

Gracie looked at him suspiciously. "Is this all there is to it?"

"No. You will also have to teach Judy and Wolfi how to pick pockets."

"Whaaaat?" simultaneously exclaimed Judy and Wolfi.

Olin explained. "The patrons will be very well to do and thus could attract pickpockets to the vicinity of the establishment. You two would spot them easily but I want Judy also to be able to detect them. The best way for her to be able to do that is to be an expert pickpocket herself.

In the case of Wolfi, he and the other boys have a good income from the train passengers but I suspect that sooner or later a pickpocket or two will rob the travelers. There is the real probability that the passengers might accuse the lads because many young boys are known to be thieves. That could lead to some very nasty situations as the courts seem quick to convict ragamuffins and send them off for "discipline". I want the boys to be able to detect pickpockets and cry "thief" when the occasion arises. The passengers would then learn that the boys are honest, can be trusted and in fact can protect them from pickpockets."

Gracie smiled slightly. "It all sounds nice and we really don't have any other good plan so I suppose that we will agree."

Judy was not perfectly sure that employing two pickpockets would be the best choice to make but she would leave that decision for her grandfather. "Girls, if you will come with me I will take you to see my grandfather. If he agrees with your employment then I will set up a place for the two of you to sleep this evening. Until the restaurant is built you can do work about the store and house as well as carrying food to the boys at the station for their vending."

As the three young ladies walked off across the greens Wolfi made a remark to no one in particular. "That April certainly has pretty green eyes."

"You can see them better if you are with them. If they make a break for it run them down and bring them back," Olin finished saying this last to the receding backside of Wolfi.

Judy approached her grandfather on the greens as he stood talking to Mr. Scalodi. "Grampa, this is Gracie and April who are new to the town and are looking for employment. Olin for some strange reason believes that you might desire them as hostesses in your..."

"Superb!" exclaimed her grandfather. "There is not a pimple or a pox anywhere about their faces and their skin is as fresh and smooth looking as flower petals. That is very important when one must bend close to serve fastidious patrons their food. Now girls, smile broadly and show me your teeth." Gracie and April smiled mechanically. Macnock's expression brightened further. "Superb once again. What fine teeth to smile at my patrons with."

A slightly indignant Gracie made an observation. "Sir, you seem to be evaluating us as if we were horses that you might desire to purchase."

"Excellent once again as you are fluent in English." Turning his glance to April he requested, "Please speak a sentence to me."

"My feet hurt, I am very hungry and I must go to the outhouse." As an after thought, "If you please, Sir."

Macnock was very delighted with the two of them. "Judy, take them to the store for food and other matters. This is truly an excellent find by Olin and I must go to thank him."

Judy leaned close to his ear and said, "I think that you should know that these two are pickpockets."

The man was slightly startled. "Is Olin aware of this?"

"He believes that it recommends them all the more highly."

"He is seldom wrong and I am sure that he will adequately explain that to me at his first opportunity." Looking at Gracie he gave her an instruction. "Take my wallet without me detecting it."

"I can not."

"Why not?"

"You do not have your wallet with you today."

Macnock smiled approval, as he had not carried his wallet with him. "How did you know that?"

"From the stance that you took when you asked me to do it. If there had been a wallet upon you, then subconsciously you would have revealed its location with slight hand movements. That is to say that you would have tried to make me think that it was located every place except the right one."

Macnock was pleased. "You are hired young ladies." As the girls turned to walk to the store he added, "Wolfi, why don't you escort these..." There was no need to finish the instruction as he was talking to Wolfi's receding back.

## Chapter 27

Dr. Herman had left the Independence Day celebration and walked into town to the sheriff's office, where he found Tramell sitting behind his desk.

"How may I assist the good doctor?" asked the sheriff as he smiled a greeting.

"You can arrest a murderer."

"Who has been murdered?" Tramell asked with apparent interest.

"The widow Sneider."

The sheriff gazed at him for a moment with a lack of understanding. Finally he spoke. "You yourself ruled it was natural causes."

"I was wrong."

"Who killed her?"

"Jacques Michaud," firmly stated the doctor.

"How do you know this?" asked Tramell.

"At the celebration today Jacques was teasing Harvey Moulten about his early hair loss and said to him, "In a week you will be as bald as old widow Sneider was"."

The sheriff was puzzled. "The widow Sneider was not bald."

"Exactly."

The sheriff sat patiently waiting for Herman to explain the mystery.

Herman proceeded. "You do not believe that she was bald. The mayor has no awareness of such a thing. I did not think that she was bald. So then, why did Jacques Michaud say such a thing?"

"I suspect that you are about to tell me."

"Yes," confirmed the doctor. "On the day of her discovered death some neighbors suspected the worse when they smelled a foul odor and ran to inform you of it. You then came to my office to ask me to visit her home with you. When we arrived you hesitated to enter, I shall not remind you why, but myself being experienced with such situations offered to enter alone and take a look about. When I went into the bedroom I saw a figure in bed."

"Yes, the widow Sneider," said the sheriff.

"I did not think so at the time."

Tramell was surprised at Herman's statement. "Why not?"

"I thought that it was an old man. I knew what the widow Sneider looked like and the person did not look like her. When I approached closer I saw that it actually was her but that she did not have her wig on."

"Wig?" queried the sheriff.

"Yes, the poor woman was entirely bald. There was not a single hair on her head. Now, there are some people who in very muggy weather shave their heads to be that much cooler as they try to sleep in the heat of warm nights. Also, another reason could be the ubiquitous nits. These cause some people to prefer to shave their heads rather than to endure constant infestations. Working as she did at the mayor's office she was sure to come into contact with a variety of people, many of whom were infested with the bugs. It would seem that she wore a wig in summer to look presentable at work and of course had to wear it the rest of the year or many questions would be asked about her



hair growing back in at those times."

Herman paused a moment as he collected his thoughts. "Now, at her age I assumed that her heart had merely given out as she slept. Out of respect to her I went to her dresser where she had kept her wig upon a stand each night, took it and placed it upon her head as neatly as I could manage. Thus when the mortician entered she looked as she always did and there was no talk or snickering around the town in regard to her baldness. She was buried in a simple manner without a funeral as she had no kin, so the mortician had no need to do any more than place her in a casket and close it, never realizing that she had a wig upon her head."

Herman provided further information. "At the time I viewed her in the bed the pillow was beside her head and not beneath it. That meant nothing at the time. Also, while placing the wig upon her I noticed bruising upon her cheek and right wrist. Now, many elderly people bruise easily and in itself it did not raise a concern.

But now I imagine that Jacques pulled her pillow from beneath her sleeping head and forced it down upon her face. She awakened and reached up to try to remove the pillow that Jacques held down with his right hand as he used his left hand to pull hers away. His hand pressure upon the pillow bruised her cheek and his grip on her arm bruised her wrist, as it would have been some minutes before her struggles ceased. He afterwards just set the pillow to the side not bothering to lift her head to put it in its normal place."

"Very well then we shall believe that it was murder," said the sheriff. "Now listen. There are more celebrations this evening with skyrockets at The Rocks so Jacques would be within a crowd and that would not be a good time for an arrest if he happened to be armed. Thus I will wait until tomorrow and make the arrest at the Michaud farm. With any luck he will be too hung over to resist. I will deputize the town watchman Harvey Moulten." As an after thought, "That is ironic I suppose."

The sun rose at 4:13 AM on July 5, 1855, and the day dawned with a clear sky. Just as the sun's disc cleared the horizon Harvey Moulten rode up the street to the sheriff's office. "Good morning," the sheriff greeted Harvey. The sheriff handed a deputy's badge to the man who pinned it on his shirt. They untied their horses and swung up into the saddles. Tramell headed north out of town. "We're going to the Michaud's to arrest Jacques for the murder of the widow Sneider," he informed Harvey.

"I did not hear that she was murdered," Harvey said in surprise.

They rode in silence for several miles until they reached the entrance to the road to the Michaud farm, the same location where Holnami had knocked Jarad Hortmuller unconscious with a sock full of lead birdshot. The sheriff advised Harvey, "As we approach the farmhouse stay well to the right side of me, don't give anyone an easy shot at the both of us with a scattergun."

They rode up the dusty road as the birds chirped in the trees to the sides of them. Suddenly there was a fluttering rustle in the brush to their right and they both reached for their pistols as a flushed pheasant flapped its way upward. With rapidly beating hearts they continued the ride towards the house. Harvey gripped his pistol in his right hand and let it hang down at the side of his mount. As they closed the distance to the house he began to side step his horse to keep its left side towards the front door

and thus conceal his drawn weapon. Tramell kept both of his hands on his saddle pommel and brought his horse to a halt twenty feet from the front porch.

Claude Michaud had seen their approach and stepped out of the open front door and down the porch steps with his hands open and empty. He greeted them. "Morning Sheriff. Morning Moulten. Out a mite early in the day it seems. Are you after a bottle of my moonshine?"

The sheriff's eyes had been scanning the open doorway and the windows of both floors of the large house but had detected no one else. "Morning, Mr. Michaud. No, and I am not here to raid your still in the barn either, as I would not go within a mile of that contraption. I swear Claude, one of these days it will blow the roof off and take you along too."

Michaud did not desire any more small talk. "Well, how then might I help you?"

"Is Jacques hereabouts? I must say that was a mighty wallop you rendered on to him last evening."

Michaud remained silent as he speculated upon the cause for the sheriff's visit. He reasoned that clearly it was not friendly, as he had brought a deputy with him. Finally he convinced himself that it had to do with the death of the widow Sneider, as he was not aware of any other crime that Jacques had committed, though it was possible that there was another. He lied. "Jacques has gone off on horseback to round up a milk cow what has strayed away."

Actually, Jacques was clutching a shotgun and standing against the front room wall just to the side of the open doorway. He knew that he had not committed any other crime and was sure that the matter had to do with the old woman's murder though he could not guess how they had learned that he had committed the felony. His mind was a shambles as a result of the bad liquor that he had drunk the previous evening and he was in an extremely agitated state.

In his fogged imagination he could picture himself upon the gallows and the rough rope noose being placed around his neck. In a nervous panic he determined that he had to kill both Sheriff Tramell and Harvey Moulten. His sweating thumb cocked back the two hammers of the 1832 James Purdy long double barreled bird gun that he was clutching.

The sheriff and Harvey tensed as both had heard the gun hammers latch in the quiet morning air. Harvey's right hand was raising his revolver and Tramell was reaching for his Colt Navy .44 as Jacques sprang into the doorway attempting to lift the long barrel of the shotgun into firing position. The murderer saw the glint of sunlight off of Harvey's revolver and brought the double-barreled gun upward in that direction.

He fired the left barrel and as the heavy charge thundered it propelled the group of lead shot pellets on a trajectory to the crook of Harvey's right arm. The impact of the lead shot disintegrated Harvey's elbow and his forearm separated from his body, turning once around in the air with the Pepperbox revolver still clutched in the hand, before falling to the ground. The blood spurted in a gush from the severed stump of his upper arm as Harvey sat in shock at the sight of it.

During a violent crisis time seems to stand still in the human mind. Tramell felt as if his entire body was under water and it was retarding his every movement as he

struggled mightily to draw the heavy Colt from its holster and bring it around to bear upon Jacques. The boy had been jolted by the shotgun's recoil and he was exerting every bit of strength to bring the long barrel around to his right and in line with the sheriff's face.

Tramell experienced the deadly race in a horror of slow motion, as did Jacques. The colt was just passing over his horse's head as Jacques shotgun was aligning with his right knee. The sheriff had to bring his colt down slightly to aim at the boy's chest and Jacques was heaving the shotgun upward to blow Tramell's head off of his shoulders. It seemed to Tramell that the hammer of the colt was never going to fall the short distance to hit the cartridge as he had in his mind long ago released it from its cocked position and now he feared a dud.

The colt roared but he did not hear it. The shotgun roared and he did not hear that either. He felt the colt buck upwards in his hand and saw the shotgun buck upwards in Jacques grip. The colt .44 slug struck Jacques square in the chest, the lead slug mushrooming as it struck breast bone and it very nearly pushed his entire heart out of the gaping exit wound in his back. Extraordinarily, the dead boy fell forward, and not backwards, onto the dusty ground.

The lead pellets of the shotgun struck Tramell's horse in the right front shoulder and as the animal started to go down on that side the sheriff kicked his boots out of the stirrups, jumped off to the left and landed in a crouch upon the ground as he re-cocked his Colt.

Claude Michaud had also heard his son cock the hammers of the bird gun and had further heard Jacques step out onto the porch behind him. Seeing Harvey Moulten start to raise his hand and reveal a pistol he reasoned that Jacques must have the gun aimed at the deputy. The blast from the end of the barrel only four feet behind his right ear deafened him and he had flinched into a slight crouch.

The sight of an arm clutching a pistol arching through the air had momentarily mesmerized him but he recovered and reached behind himself to grasp the butt of a flintlock pistol stuffed into his belt at the small of his back. His focus was now upon Tramell and he saw a Colt Navy revolver in the man's hand with the flat sides of its octagonal barrel flashing in the sunlight. He was struggling to cock and bring the flintlock weapon around and up as Tramell fired the revolver at Jacques. When the shotgun blast followed almost immediately after he thought that Tramell had missed and as the horse started to go down he hoped the Jacques was reloading the shotgun.

From his crouched position Tramell could see that Michaud was bringing a flintlock pistol to bear upon him. He brought the Colt around from its position of aim at the fallen Jacques to align it with the farmer and fired his second shot. The lead slug hit into Michaud's face an inch below the right eye socket causing his head to be slammed backwards. At the same instant a spasmodic reflex tightened the man's grip on the flintlock pistol and it discharged a .45 lead ball into the ground about twenty feet in front of Michaud and in line towards Tramell. The internal forces of the passage of the Colt Navy slug through his skull pounded Michaud's brain matter into shattered bits and he crumpled almost straight down.

Tramell had three imperatives. One was to determine if Babette Michaud was

armed and aiming a gun at him from hiding, the second was to staunch Harvey's blood flow from his severed arm, and the third was to put his horse to peace.

He surveyed the house with his eyes but could not detect the sight of the woman. He then moved quickly around his fallen mount and keeping his pistol at the ready went to Harvey's side. With his free left hand he unhooked the man's belt and slipped it out of its loops as his eyes continued searching the doorway and windows of the house for sight of Babette. Not seeing her he holstered his gun and looped the belt around the bleeding stump, slid the end of the strap back through the buckle and cinched it up very tightly. The gush of blood subsided as Tramell looped the belt around once again, and then pushed the belt end under the tight tourniquet to retain it in place.

He rose to his feet as he drew his weapon. He then cautiously approached the outside wall to the left of the house doorway and placed his back to it. He raised his Colt Navy, aimed at his struggling horse's forehead and fired. He then turned and entered the house cautiously, scanning the room and hall for sight of the woman. Seeing no one he walked down the hall and entered the kitchen where he found Babette sitting upon a chair.

A look of stark terror came upon her face at seeing him as she had hoped it would be her husband or her son. She had been too terrified to watch the gun fight from a window and had sat hunched and cringing upon her chair as the shots reverberated through the house. When she recognized the sound of her husband's flintlock pistol she hoped that meant he and Jacques had managed to kill the two lawmen. But then there had been another shot and she no longer had known what to think.

Tramell spoke quietly to the horror stricken woman. "I am sorry but I must tell you they are both dead."

His hands were covered with Harvey's blood and the sight of the bright red stains drove her in to a frenzy of agitated terror. She screamed repeatedly and hysterically as she jumped out of the chair and backed towards the wall, tears streaming down her cheeks. She begged him, in a mistaken belief of what had occurred, for her life. "Tell her I will do anything she says! Tell her that I believed her when she said that Stackton would kill us. Tell her I will be her slave, forever and ever. I will kill the abolitionists for her. Just tell me which ones! But, please, please, please don't kill me also!"

Tramell was mystified. "Tell who?"

In total fear she continued to plead for her life. "Mrs. Pentahelm! Please tell Mrs. Pentahelm not to kill me! Oh, please, please, please!" She slowly slumped to the floor in a sobbing heap.

Tramell turned around and retraced his steps to the front door and exited the house. He harnessed a horse to the Michaud buckboard as quickly as he could, threw several thick horse blankets into the bed of it and then lifted the wounded Harvey Moulten into the wagon bed. Then he retrieved the man's forearm with its hand still clutching the Pepperbox revolver and placed it beside the wounded deputy. He climbed to the bench seat and snapped the reins. He set the horses into a trot as he prayed for the wounded man. As he drove the wagon along the road he pondered why Babette Michaud had spoken two names for no apparent reason, that of a Stackton person and Mrs. Pentahelm. It seemed to him unfathomable that with her husband and son dead in

the yard that she would mention the mayor's secretary.

He raced into town and as he pulled up at Dr. Herman's office he called out for him. Hearing the noise of the buckboard and Tramell's voice, the doctor stepped outside to discover what the excitement was about. The sheriff informed of the situation. "Moulten is in the wagon bed. His arm is gone at the elbow and he has lost a lot of blood."

Herman climbed up in to the bed of the wagon to inspect the wounded man.

Tramell called out to several bystanders to be ready to help carry Harvey inside. To a young boy he said, "A penny for you if you run to Mortician Froncet and tell him to harness his hearse and come here with two coffins in it."

The boy ran off as the crowd of bystanders struggled to comprehend how Moulten had been injured and why in the world the sheriff required two coffins for one dying man. Several of the men from the crowd carried Moulten to the rear of the office and laid him upon a bed. The doctor cleansed the wound and then used a scalpel to remove shreds of flesh to gain access to the arteries that he tied off with catgut to permanently stop the bleeding. He then engaged himself in stitching the skin taut over the wound to seal it against further possibility of infection.

As the sheriff stepped out onto the wooden porch he saw the farmer Peter Conway and beckoned him closer. "Peter, you are the best butcher of livestock that I know so I have something to ask of you. My horse lies dead at the front of the Michaud house. Could you get your butchering knives and go there to render it into sections? Take one third of the meat for yourself for your labor and please share out the remainder to the Malcoms and other families hereabouts that have fallen upon poor times."

Conway very much favored the taste of roasted lean horsemeat and as the occasion to savor it did not often arise he was quick to agree. "Certainly, Sheriff. Glad to oblige." He swung up onto his saddle horse and rode out of town towards his ranch to get his knives and meat wagon in order to accomplish the task.

The sheriff saw the mortician's hearse approaching and the crowd stepped aside as Froncet pulled up close to the porch in order to lessen the distance of toting a corpse out. "Has the patient died?" Froncet asked, struggling to hide his hopefulness.

"No," answered the sheriff.

The mortician frowned. "Why then is there the need for two coffins?"

The crowd surged forward to better hear the answer.

"There are two dead men lying in front of the Michaud farmhouse. They are Jacques and Claude Michaud. Ride there and place them in coffins and then ask Babette Michaud where she wants to have them buried." The crowd gasped upon hearing the news from the sheriff. Much elated at the sudden pick up in business Froncet was up onto the driver's seat of the hearse in a twinkling, whipping the reins to drive the horse at speed for perhaps the recent widow might get others to inter the departed loved ones before he could arrive on the scene.

The crowd scattered both to avoid the rushing hearse and to run and spread the gossip of the double killing. Mrs. Lorrent hitched up her long skirts and sprinted for where she believed the greatest audience size would be. As she burst into the crowded

Macnock general store she was not at all disappointed. Macnock had purchased ice from Mr. Skanter and with it Judy had made large pitchers of cold lemonade for sale on the now blistering hot Thursday of July 5, 1855. All of the women that were out and about had learned of it and a covey of them were engaged in sipping and gossiping at the back of the store.

Mrs. Lorrent was filled with a sense of achievement because never before in her life had she been blessed with such electrifying news that she could reveal simultaneously to such an abundant number of ladies. She nervously brushed her blond bangs from her forehead and breathlessly exclaimed, "They are the two of them dead!"

All eyes turned in her direction and the people in the store were stunned into silence. Mrs. Lorrent stood gasping heavily to regain her breath.

As she failed to speak further Mr. Macnock prompted her. "Which two?"

Incoherent with excitement she could barely answer. "Both of them, that's who! The father and the son!" She nervously brushed her blond bangs off of her forehead again, they having slipped loose from the barrette while she was running.

"Give their names," demanded Macnock.

She gasped them out. "Jacques and Claude Michaud! The mortician Froncet is on his way with the hearse to put them into coffins."

For several moments those present were shocked into speechlessness. Then from the rear of the store there was a ghostly noise, starting low and then rising in volume. "Eeeeeeeeeeeeeee!" moaned Samantha Olsen in intensifying fear.

When the others turned to look at her they found that her eyes were fixed in dread upon Mrs. Pentahelm and she was backing away from the woman. "You had them killed!" Samantha exclaimed choking with horror. "Oh, my God, you said you would, and now you had them killed! Your slaver brother killed them! He slit their throats!" Her back reached the wall and she stopped. Once again her bladder sphincter failed her and urine trickled down her legs, as she stood horrified at the approach of Mrs. Pentahelm.

Mrs. Lorrent was not enchanted by the fact that no one was any longer paying attention to her but she stood transfixed by Samantha's hysterical performance. She wondered what the girl was going on about.

Mrs. Pentahelm stepped towards Samantha and slapped her across the face, which stunned the girl into silence. Then she put her arm around the girl's shoulders and began to hustle her out of the store. "There, there, my darling girl. The news of killings has upset your very delicate nature and you have gone to ranting out foolishness." She moved the girl out the doorway and down the street away from the people that had stepped outside to witness their strange going.

## Chapter 28

The drama that had played itself out at the Michaud farm was unknown to the boys at the Rocks. Stephan Horan had constructed the masonry stands for the waterwheel axle bearings and the boys had that morning set the heavy oaken axle into place. They had lubricated the bearing seats and now spun the axle to assure its freedom of movement. They were well satisfied at its ease of turning. During the winter months they had fabricated various oaken elements of the wheel and the task at hand now was to assemble them one at a time to build up the entire structure. As the wheel began to take shape the boys could finally visualize the fruits of their labors after the many months of effort with ax, saw, adze and shaving knives.

Andre looked at Olin questioningly. "How will we get the motion of the turning wheel to drive saw blades and gristmill stones? You have never explained that to us."

"Gustav, the foundry master is casting belt wheels for us."

"What is a belt wheel?"

"Well, instead of gears with teeth or cogs, we will use smooth rimmed metal wheels and a large leather belt. The farmer, Peter Conway, does good work with cow hides, turning them into leather by a method called tanning. He will make a large belt of leather for us and we will loop it onto the main belt wheel and also onto driven wheels."

Andre was curious. "How much is Gustav charging you to cast the belt wheels?"

"His price is enough charcoal to melt three tons of iron and he calculates that to be 240 bushels, so you and the boys must make a lot more charcoal."

Andre was surprised. "No money, just charcoal?"

"It is one and the same thing. He was going to pay money for our charcoal as he has constant need of the fuel and the colliers here about are not keeping him readily supplied. If the truth be told he wants the charcoal from us more than we want the belt wheels from him as we can always go to another foundry with our charcoal."

"There is value in many things other than cash money," Andre remarked.

"Speaking of such things, Gustav has invested in an orchard of apple, peach, pear and cherry trees. This next spring we will go there and select a number of young fruit trees for replanting in earthy spots hereabouts. There are a large number of places that will support one or two fruit trees well enough. Again, we will pay for them with charcoal so keep the boys at the making of it."

"Which trees go where if there are to be different kinds?" Andre wanted to know.

"Well, we must pay attention to cross-pollination. For example peach trees can cross-pollinate between themselves but a Courtland apple needs a crab apple."

"Cross-pollination. Is the reverend Kertabit going to bless these trees?"

Olin smiled. "No Andre. The honeybees and other insects will carry the pollen from one tree to another. It is just that some kinds of trees must be cross-pollinated before they will bear fruit."

During the next several weeks the boys completed the construction of the waterwheel. As the sluice gate was slowly opened the wooden buckets of the wheel began to fill with water and the large wooden structure started to slowly rotate to the loud and abundant cheers of the boys. They let the wheel turn for hours as they sat and

ate their lunch and marveled at their accomplishment. In their now very confident imagination they could visualize the saw and gristmill building that they would also construct.

Benjamin was curious about the power that could be obtained from the rotating wheel. "How do we know how much work the wheel can do?"

Olin started to reply when Andre stopped him to ask, "Is this going to be another long, windy explanation?"

"Olin said, "I will skip the details. It will give us just about 80 horsepower and that is more than enough to overcome friction in the bearings and to saw timber or grind meal."

The boys were very impressed with the power that would be obtained from the water wheel. They tried to envision the work that a team of 80 harnessed horses could perform and it boggled their minds.

Olin continued with the explanation. "We do not need that much power. A set of grist stones four feet in diameter has been measured to require only 4.5 horsepower. We see then that we can easily both grind grain and saw wood at the same time. That is a great advantage to us because with smaller water wheels the mill master must stop one kind of work to perform the other."

Curious as ever Andre asked, "How fast can we cut lumber with our wheel?"

Olin knew the answer. "There is a thing called a rotary saw blade and it is turned continuously about its center point. They say that it can cut the same log at a rate of sixty feet a minute."

The idea of the gristmill also intrigued Andre and he decided to change the subject. "Where will you buy grist stones?"

Olin laughed. "I am not going to buy them. You and the others with Zygmunt's help will make them. We have tons and tons of granite lying around due to your fires and the drill holes so you will chisel the stones out of that rock." As the warm afternoon wore on Olin and the boys happily discussed their future activities.



## Chapter 29

On the morning of Tuesday, August 7, 1855, a stranger appeared at the end of the town street upon a horse. He slowly walked his mount along and as he did so he took a batch of printed flyers from his saddlebag and began to cast them about upon the ground. When he encountered townspeople that had come to stare at his actions he would hand down a copy of the flyer to each of them. Arriving in front of Sheriff Tramell's office he stopped the horse and dismounted with a flyer, a small hammer and some tacks in his hand. He set the flyer up against the wall near the office door and proceeded to anchor it in place. Upon hearing the tapping the sheriff stepped outside to investigate its cause. The man paid no attention to him, finished the task, remounted his horse and continued distributing flyers throughout the town. The sheriff stepped over and read the printed sheet of paper.

## Murder

### has been done by the **Abolitionist Sheriff Tramell!**

A young and innocent youth has had his heart blown out of his body in a wanton act of **murder!** As his grieving father rushed to comfort his dying child the

**Murdering Sheriff Tramell** in his blood lust shot him also after first disarming him, the man's unfired flintlock pistol having been found lying in the dirt. The **Murdering Sheriff Tramell** then threatened and terrified the **grieving Widow Michaud!**

The Association of the Friends of the Widow Michaud has rallied to her assistance against this fiend and has demanded an **Inquest into the murder!**

The **Honorable Judge Reginald P. Quilstadt** to preside on Sunday the 12th day of August 1855 at the town hall.

The gallows will be constructed immediately using benevolent donations from the Friends of the Widow Michaud and donated to the town so that **Justice might be done!**

The hangman, the **Renowned Ronald O. Archimbault** as assisted by his apprentice and son, Oke L. Archimbault, has been paid in advance and humbly and professionally accepts the honor of dispatching the **Murderer!**

The sheriff heard the sound of wooden planks being dropped onto the street and turned to see two men unloading a lumber wagon in preparation of constructing a scaffold. He stepped into the street and sauntered towards them, his badge glinting in the sun and his Colt Navy holstered on his left side. The men watched his approach with growing uneasiness because he was in their minds, a cold-blooded killer.

The sheriff addressed them in a flat tone of voice. "Good morning men. I must make two requests of you."

The workmen had taken a few steps backward in trepidation at his approach. They wished to be all the nearer to the wagon if a rapid retreat appeared to be in order. They remained silent.

The sheriff instructed them. "First, you must erect the gallows in the vacant lot next to the sheriff's office because if you erect it in the street you will obstruct the passage of the good citizens of the town and their horses and wagons."

The men nodded their heads to indicate that they understood where the gallows should be located and waited for the second instruction in silence.

"Now, take good care to assure that the building of it is quite solid and sturdy, especially the stairs," the sheriff further guided them in regard to their endeavors. "As it has been donated to the town it becomes the property of the town and with that ownership there arises a certain obligation on the part of the town officials. As we escort the condemned man upwards we must be very sure to watch out for his safe arrival there, and rickety stairs might cause unnecessary and unwanted injury to the man and he might rightly complain and request time to heal his wounds. Such a thing if granted would surely cast a cloud of disappointment upon the righteous spectators who so looked forward to seeing justice being done, as the nailed up flyer yonder points out to its readers."

The workmen continued to hold their tongues but they were convinced that he was insane.

Tramell added something as an afterthought. "Of course, once the condemned man is safely onto the scaffold, the town has no obligation for his safe return downward."

The workmen twittered in nervousness at the macabre humor of the lawman.

Tramell gave them further instructions. "Be quite sure that the trap door does not stick tight at an inappropriate time. As you know humid air and moisture will expand wood and cause it to jam, so pour water upon it before your tests. A two hundred pound sandbag is recommended as the first item to be dropped through to test the slip of the trap and the stiffness and bounce of the noose beam."

One of the workmen gulped. "Yes Sir, we will do it."

"Good. Now then, get a hurry about you to complete the gallows, as the trial is only five days hence."

As the sheriff turned to walk back to his office he spied two riders on horseback approaching down the street. They both wore black top hats and black suits and one appeared to be about forty years old while the other was a lad of about fourteen years. He waited as they rode up and reined in their mounts near him.

Sheriff Tramell looked up at the man and guessed his identity. "Mr. Ronald O. Archimbault, hangman by trade, I presume."

The man tipped his hat in greeting. "May I present my son, Oke, hangman in apprenticeship."

"Good morning to you, Oke."

The boy returned the greeting. "Good morning. Sheriff Tramell, I presume."

"Yes, lad, I am he."

"May I step down and measure your height, Sir?"

"Certainly, as I have always wondered about it myself."

The boy dismounted and unraveled a cloth tape measure as he approached the sheriff. "Sir, might I ask if I can slip a bit of this tape beneath your boot in order to hold it fast as I stretch the tape upwards to the top of your head."

"Glad to oblige." The sheriff lifted his boot slightly to allow the boy to place the tape end under it and then he applied his weight back to the boot. He removed his hat also.

The boy stretched the tape upwards to the top of the man's head, read it and gave the information to his father. "Five feet and eleven inches."

The father marked the value into a small notebook using a short stub of a pencil. Looking down fondly at his son he prompted him. "And what is the next proper question?"

Oke turned to the sheriff and spoke politely. "My good Sir, do you wish to die with your boots on? If yes, then this measurement is enough. If no, then I must respectfully request that you remove a boot so that I might measure your bootless height."

The sheriff smiled at the lad and then looking up at the father he opined. "You have taught him splendid manners. I do not believe that a felon would be affronted to be hung by the team of you." Looking back at Oke he answered him. "With my boots on. There could always be splinters on the ascending stairs and there is no need of risking additional discomfort by going up in my stocking feet." He replaced his hat.

The father made a notation in his little book to record that boots would be worn.

Oke said, "You may lift your foot now sheriff so that I might reclaim my measuring tape."

The sheriff lifted his foot slightly so that the lad could retrieve his well-used tape measure. He was curious. "Why did you measure my height?"

The lad readily told him. "Well, Sir, when we drop you through the trap it would not do at all if the rope was so long that your feet touched the ground and prevented your neck from snapping. That is why we needed to know if you would be wearing long heeled boots.

On the other side, it would not do at all if the rope was too short and you did not fall far enough to have your neck snapped cleanly. With your actual height and weight measurement and the measurement of the noose bar distance above the ground, as well as knowing the stretch factor of the selected rope for your weight, we can find the happy medium of rope length."

The sheriff gazed up at Ronald O. Archimbault with an expression of admiration. "That is a marvelously scientific manner in which to bring a man to his death. Very efficient and full of considerate thought, I must say. It is apparent that you take great pride in your vocation and have taught your apprentice well. Most men would simply throw a cheap rope over an available tree limb and haul the condemned aloft. Mr. Archimbault you can take pride in the lad. Now, might I ask if you have had any breakfast?"

"No, but we wish also to know your weight and that is the pressing matter at the moment. The rope should be no thicker than necessary to jerk your weight without snapping because the thicker the rope the more difficulty in fashioning a noose with a

good slip to allow it to tighten quickly about your neck and hold. I regret to say that a noose that does not fully tighten has, at the hands of nonprofessional hangmen, resulted in entirely unsatisfactory results."

Tramell's expression of interest induced the man to continue.

"In one regrettable instance the poor man slipped through and out and remained quite actively alive. He had to be remounted to the scaffold, and that was a sorry chore as he had soiled his britches abundantly and the ladies had to cover their noses with perfumed handkerchiefs in order to be able to remain near enough about the gallows to fully appreciate the conclusion of the event as was their civic entitlement."

The sheriff smiled agreeably. "Well may Heaven forbid that we annoy the ladies during the course of their public duty to bear witness to legal proceedings. Let us remove ourselves from the street and go to Mr. Macnock's general store where he has both a large weighing scale and food for breakfast, thus we can kill two birds with one stone."

Ronald O. Archimbault leaned forward in his saddle and stared down into the sheriff's eyes. "You did not commit the crime. I can tell because I have looked many times into the eyes of guilty and condemned men. But, the difficulty that my son and myself face is that if you are nevertheless sentenced to be hanged, then hang you we must."

"Well then," smiled the sheriff, "it would not be your fault so your consciences should be clear. And now to breakfast as all this talk has made me quite hungry."

Ronald dismounted and all three walked towards Macnock's store. As they approached they noticed the proprietor standing in his store's doorway with one of the printed flyers in his hand. Macnock's eyes fell upon the two strangers, then back to the flyer and then back to the strangers. "Mr. Ronald O. Archimbault and son, I bid you good morning," Macnock said as he stepped back into the store to allow them to enter.

Judy was near the rear of the store and was unaware of the flyers or their printed words. Upon noticing the man and boy she assumed that their somber attire had some religious significance. She stepped forward to greet them. "Good morning. Are you Quakers?" she asked, making reference to the "Friends of Society". She hoped they were, as Quakers were abolitionists.

The father and son made the sign of the cross upon their chests and Ronald answered. "We are Christians and we think well of the "Friends" as they do good works." (He was correct because ninety-two years in the future "The Friends" would be awarded the Nobel Peace Prize.)

Judy apologized. "I am so sorry. I thought that your clothes indicated your religion. I was foolish to do so."

Ronald excused her. "Fear not, there is no harm done. But I will tell you that we are also not "Shakers" who are better known as "The United Society of Believers in Christ's Second Appearing." Our attire is not religious in nature, it is the uniform of our profession."

Now somewhat confused and embarrassed that her guess had gone so far astray, Judy asked an innocent enough question. "And what might that be?"

Again it was Ronald that replied. "We are hangmen, the two of us."

Judy stood silent with her mouth slightly agape.

Gracie and April edged forward from the back of the store in order to hear all the better.

Ronald continued the explanation. "We are present in town to hang Sheriff Tramell, who stands here, if the Court of Inquest finds him guilty of murder and so sentences him. In that regard we ask if you have hereabouts a large enough scale for him to stand upon so that we might learn his hanging weight?"

Judy's eyes grew large with apprehension. The man could be insane and dangerous and she was glad of the sheriff's armed presence.

Sheriff Tramell spoke. "Let us get upon the scale so that they have the value of me and then all the sooner we can eat breakfast. Judy please set out slices of smoked meats and cheeses with bread and jams. Also I believe I smell coffee and all the talk of hanging me causes me to desire a stimulant while I am able."

Mr. Macnock led them back to his floor scale and Tramell stepped upon it, his weight being determined as 176 pounds. Ronald marked the value down in his small notebook with his short pencil.

Oke asked a technical question of his father. "Must we account for the weight of that great pistol, as he will not be wearing it as he drops?"

His father shook his head negatively. "I think that the sheriff will eat a substantial breakfast that morning as he is in very good command of his emotions and his stomach will be well settled. The weight of bacon slab, eggs, beans, sour dough biscuit and coffee with offset the weight of the missing pistol and holster."

They then returned to the front of the store where on the counter Judy had begun laying out a breakfast for them as she remarked, "I have only last evening tried a new recipe for bread. It is called Portuguese sweet bread." She set out a loaf of bread that had the shape of a large toadstool with a shiny brown top. When the dough had been placed into a round baking pan and allowed to raise the top of it spread over the sides of the pan so that it became significantly wider than the bottom portion and took on the appearance of a large mushroom when baked. The people of the town were perpetually starved for diversions of any sort to relieve the tedium of their lives and as a result Judy often experimented with many ethnic recipes that they might try. Setting the results out for sale in the store drew many customers because even the tasting of a new and strange dish provided an agreeable distraction from their humdrum days and nights. When she sliced the baked bread it revealed an inside the color of golden butter.

She handed a slice to Oke and he took a bite. "She is correct, it is a fine texture upon the tongue and has a delicious sweet taste to it."

The men quickly sampled slices of the bread and agreed that it was quite unique and satisfactory. They also helped themselves to slices of salami, bologna and liverwurst, as well as to the cheeses. Remembering the sheriff's request for coffee she quickly brought him a hot cup of the brew and then set out cider for the others.

Sheriff Tramell turned to Mr. Macnock. "This fine breakfast is at my cost as these two are my guests."

Judy and the other two girls could not imagine why he was paying for the breakfast of people that had declared their intent to hang him.

Between mouthfuls, Ronald O. Archimbault asked the sheriff, "Speaking of religion, have you prayed mightily for your acquittal before the Court of Inquest?"

The sheriff smiled slightly. "That reminds me of a story. There once was a sailing ship that had holed herself upon a reef and thus was sinking fast. The captain cried out to the crew, "Is there any among you that is devout and knows how to pray?"

One crewmember spoke up confidently. "Yes Captain. I have some training in theology and know the correct prayers to make."

The captain replied, "Good, good. Now pray as hard as you can while the rest of us put on the lifebelts. We are one lifebelt short."

Ronald and Mr. Macnock guffawed but Judy was horrified by the gallows humor. Gracie and April were hugging each other as they attempted to suppress imminent open laughter. Oke continued stuffing food into his mouth, as he was famished but somehow managed a smile through it.

The sheriff continued. "So you see, Sir, I prefer a lifebelt such as good evidence to support my case, but the spectators can pray for me if they wish. Now, may I ask how many convicted felons you have sent to their maker?"

"Oh, certainly," Ronald answered in an accommodating tone of voice. "I keep precise records for several reasons and thus I know quite quickly that there has been forty-seven and Oke has assisted me on fourteen of them.

My first accomplishment was quite by chance. As I was witnessing an event the hangman was just moments away from springing the trap on a convicted murderer when he himself collapsed and died of a heart attack. Now, the black hood was upon the felon's head and he had to stand there until the doctor attended to the hangman to no avail, and then they had to remove the body out of the way and down the stairs. Then some more minutes had to be taken to decide what to do with the corpse.

In the meantime it was the heat of July and the felon could not breathe well beneath the hood and was in danger of suffocating to death. That would have broken the law, as he had been sentenced to be hung quickly and not instead slowly deprived of air. It seems that no one had the sense to remove the hood as a matter of charity.

Of course the man was full of suspense and panic while waiting in the stifling darkness and he finally cried out. "Oh, please sweet God, let someone pull the lever!" The mayor of the town at last had the wits to call for a volunteer to pull the trap lever. In a desire to avoid further cruel and unusual punishment of the man I went up and compassionately accomplished the work. I felt as a Good Samaritan might and it filled me with a sense of accomplishment. God had shown me my calling and I could not deny it."

Judy had paled and now staggered towards the back room, her hand over her mouth. Gracie and April edged closer so as not to miss any words. Mr. Macnock stepped outside for some fresh air.

"What is the purpose of your record keeping of your "events"?" the sheriff asked.

Ronald O. Archimbault patted the notebook in his breast pocket. "There are three principal reasons for recording our accomplishments. The first is sympathy. On some occasions the relations and friends of the departed are unable to attend due to separation by distance, or lateness of the news. Thus on occasion the condemned asks

that I take down some last words to be said when these people finally arrive and if I am still about the area."

Tramell asked a question for a reason that he could not fathom. "What are the most often spoken last words?"

Ronald shook his head sadly. "Most often they ask that I tell such and such a person "I will be waiting for you in hell, you...""

Sheriff Tramell easily believed that based upon the felons he had known.

"I do not pass along such messages unless it is abundantly clear that the recipient has truly earned it," Ronald O. Archimbault said as he continued his explanation of his record keeping. "The second reason is a matter of respect for science. My son and I pay strict attention to the technical details of height, weight, rope type, distance of fall, et cetera. And from this there might be two beneficial outcomes. The first is that our occasions to assist felons to depart this life continue to be conducted without flaw or mishap. What worked well before should work well again."

The sheriff asked, "And the third?"

Archimbault answered. "You may find this difficult to believe but there is no written textbook upon the proper procedure of hanging men, no treatise even, that would permit instructions to a novice that aspires to the profession. Almost all other professions can boast of tomes of literature. Well Sir, Oke and I intend to author such a written work for the benefit of the workingman."

The sheriff was grinning broadly. Gracie and April had stopped giggling and stood staring at the man in the black suit.

Ronald pondered the situation philosophically. "I must tell you Sheriff, you will be the exception. I can say with honesty that often the greatest single achievement in a felon's life is for him to die with dignity. Oke and myself are gratified that we can orchestrate the ritual of their passing with decorum. In your case we will have to find some random method, perhaps the toss of a coin, to determine which of us must pull the lever as neither of us would want to do it voluntarily."

The sheriff excused himself. "I have to bid you good day at this time, as I must investigate the theft of a milk cow. If not before then, I will see you at the inquest."

Ronald gently placed a hand on his arm to stop his leaving. "Is there any prisoner in your jail cell at this moment or do you anticipate casting a cow thief into it today?"

"No, not at the moment. And as regards the cow thief I believe it is actually a matter of one cousin playing a trick upon another."

"Then I ask a favor, kind Sir. May we reside in your cell until our business here is complete?"

"What? Why?"

"People in boarding houses can get cranky about our presence there, as they say that it ruins their appetites at the table. If we are allowed to stay at the jail feelings will be spared. There is a privy behind it, I am sure, and we can purchase our food from this store where we seem welcome enough."

The sheriff swept his arm out in a gesture of encouragement. "Sir, my jail is your jail and you are quite welcome to the cell cots. Now I must leave you but the door of the jail is open." He was chuckling as he stepped out onto the street.

## Chapter 30

On Saturday, August 11, 1855, the Honorable Reginald P. Quilstadt arrived in town in order to preside at the inquest on the following day. The best room at the boarding house had been reserved for him and after cleaning up he went to the office of Editor Trinkem. As the judge entered, the editor looked up from his type setting and greeted the man.

The jurist opened the conversation. "Mr. Trinkem, Sir, you have written such fine and wonderful things in regard to my judicial activities that often I do not recognize the person you are lauding in the pages of your fine paper. I have to ask myself sometimes, did I really do so well on the bench that day?"

"Well, I will only print the truth in my pages but sometimes it is possible that one thing is more of a truth than another, but all truthful nevertheless."

"Well, I have no complaints. By the means of your printed words I have gathered considerable support from notable abolitionists for a seat on the Supreme Court and I thank you for that. However, I still feel the lash from my pro-slavery supporters."

Trinkem said nothing.

The judge changed the subject. "Now Sir, as you know I am present to preside over the inquest regarding the deaths of Claude and Jacques Michaud. A number of important people have urged me to hang the abolitionist sheriff quickly and high, or I will not return to their good graces. For a reason that I do not understand the slavers are extremely irritated by the passing of Claude and Jacques Michaud. As far as I know they did not even own a single slave. There are great amounts of money involved with slavery but I am befuddled as to how simple poor farm folks like the Michauds could have any connection to that wealth."

Trinkem shrugged his shoulders.

Judge Quilstadt made an observation. "If Tramell is to escape the noose it must be done by the presentation of hard evidence. If he simply stands there and says only "If it pleases the court, I did not do it", then he will hang."

Trinkem maintained his silence.

Quilstadt knew that Trinkem would convey the message to Tramell. The judge was very fond of the sheriff but if push came to shove it would not be the judge that would be pushed and shoved. However the jurist hoped that if Tramell did not have a strong defense he would take the opportunity to flee if he heard that otherwise the sentence would be the noose. The judge stood up to depart. "The Court of Inquest starts at eight o'clock in the morning. I am not too sure that I will sleep well tonight."

At eight o'clock on the morning of August 12, 1855, Judge Quilstadt rapped his gravel to bring the courtroom to order. Once again the large room of the town hall was filled to capacity with curious citizens and a number of newspaper reporters from nearby towns. Mixed in among them were several slaveholders from the southern part of the state and they seethed with a lust for the blood of the abolitionist sheriff.

The prosecutor H. Arlen Moses rose to his feet. "If it please the court, it is seen that the defendant is armed with a loaded Colt Navy revolver, the murder weapon, and is perhaps a danger to the innocent persons present."



Mr. Hiram rose to his feet to represent Sheriff Tramell. "Objection and if it please the court, Mr. Will Hiram for the defense and good morning, Your Honor."

"Good morning Mr. Hiram. I am glad to finally see a member of the bar at the defense table of this town's court. You may speak and what is your objection?"

"Your Honor, only to mention a couple of facts that so easily escapes the prosecutor's mind that we must rush to bring him notice of them. First, Sheriff Tramell, in his position of Sergeant of Arms in protection of the peace, order and tranquility of this courtroom is duly authorized to be armed."

Judge Quilstadt addressed the prosecutor. "The sheriff has not yet been convicted of any crime, remains as both Sheriff and Sergeant of Arms, and therefore is authorized to be armed." He turned his gaze back to Hiram. "And your second fact?"

Hiram responded. "A murder has not yet been ruled as having been committed. Therefore there cannot be a murder weapon present in the court and the prosecutor misspoke in that regard. That is my objection."

The judge shifted his gaze to H. Arlen Moses and dryly stated, "The prosecutor is instructed to refrain from misspeaking."

The court reporter Mrs. Pentahelm was not happy with the current progress of the case.

"The prosecution may call its first witness," the judge announced.

"The prosecution calls Mortician Froncet."

The somberly attired funeral director approached the stand and was sworn in by the judge as he held his hand upon a bible. After he was seated the prosecutor stood up.

"Sir, did you go to the Michaud farm on the morning of July 5, 1855 and there discover two dead bodies?"

"Yes, I did. Sheriff Tramell sent me there."

"Never mind who sent you. Were there weapons in sight when you arrived?"

"Yes. Two of them."

"Was one of them a James Purdy long barrel bird gun?"

"Yes, it lay near Jacques Michaud."

"What was the other weapon?"

"It was a flintlock pistol."

"Was it cocked to fire or was the hammer down?"

"The hammer was down."

"How can you be so sure?"

"In my profession I take great pains to preserve the belongings of the deceased for the heirs. (The widow Sneider's emerald ring seemingly having slipped his mind.) The gun was lying in the dust near Claude Michaud and to prevent its possible theft by a random passerby I picked it up and walked into the house where I set it and the bird gun upon the parlor table. If the gun had been cocked I would have lowered the hammer safely so as not to bring a dangerous weapon into the house."

H. Arlen Moses addressed the judge. "Your Honor. A weapon could have the hammer down for two reasons. The first is that it could have fired the weapon. The second and most plausible reason is that it was never raised in the first place. Thus the

holder of it was not ready to shoot anyone and was murderously cut down before he had a chance to defend himself. A clear cut case of cold-blooded murder if it were true that the weapon was still loaded with a full powder charge and ball. Now, when I visited the Michaud house the day after the murders..."

"Objection!" Hiram was on his feet. "It has not been shown that a murder was committed."

"Objection sustained," ruled the judge. "Rephrase, Mr. Prosecutor."

"When I visited the house the day after the shooting I entered the parlor and observed the bird gun and the pistol upon the table where Mortician Froncet has testified that he placed them. I sniffed the barrel of the pistol and could only detect gun oil but no burnt powder. I carefully concluded that the pistol was fully loaded and had not been fired in antagonism at Sheriff Tramell. This shows that Michaud was shot down like a dog with no chance to defend himself."

There were murmurs in the courtroom and cries of "Bloody murderer. Hang him!" from the slaveholders.

The judge rapped his gavel for order. He asked Moses, "Has the weapon been under your control since that moment?"

"Yes, Your Honor, I took it into custody and preserved it as evidence."

The judge queried him. "How can you tell that it is loaded and has not been fired?"

"By holding the weapon in the light and looking down the barrel I can see the wadding that would hold a lead ball in place. The powder charge and its wadding will be beneath. Also, as I just stated, in sniffing the muzzle I found no trace of burnt gunpowder but instead just preserving gun oil."

Olin was sitting in the spectator bench directly behind Sheriff Tramell. He leaned forward and whispered into Tramell's ear. The sheriff then leaned over to Hiram and whispered into his ear. "Demand that he fire it out the window."

Hiram was reluctant. "It would serve no good purpose and may do your case harm."

Tramell emphasized his instructions to his lawyer in a loud hissing whisper. "Jump to you feet now and absolutely demand that he fires the weapon out the window! Do it before he asks the court to be allowed to do it!"

Hiram sensed that Tramell knew something that was not apparent to him so he jumped to his feet and in a loud and earnest voice he made a demand. "If it pleases the court, the defense demands that the prosecutor go to the open window and fire that weapon into the distant field. There is no livestock in sight and all of the humans, I would think, are in this room. We ask that the record show quite clearly that the defense has demanded of the court that the prosecutor fire that weapon immediately! Yes, we demand it be done without any delay whatsoever!"

H. Arlen Moses had been on the verge of asking the court's permission to fire the weapon out the window to prove that it was loaded. He was now stunned and confused that the defense was clamoring loudly with demands to have him do so. He suspected some sort of trick but he could not guess what it was and deduced that if the weapon was fired out the window that it would somehow help the other side. His instincts were

to oppose the defense on every issue. In fact that was his training.

Moses stood looking confused and reluctant. "Your Honor, the defense is in no position to demand anything!"

Hiram's voice rose in indignation. "How dare the prosecutor deny the sheriff his defense? He is not the judge in this matter! He alone has been in possession of that weapon, may we remind the court. Let the record show, he alone! And now for some reason," he said in an accusing voice, "one can only wonder what it might be, he defies the court and refuses to fire it!"

The spectators began calling for the firing of the gun, wondering what kind of underhandedness was afoot. What sort of dirty work was the prosecutor engaged in? He had the appearance of a man caught while trying to pull off a trick. There were cries of "Fire the pistol! We demand that he fire the pistol!"

Moses cried out. "Your Honor I demand a recess!"

Judge Quilstadt angrily responded, "You are not in authority to demand anything. Sit down." Moses obediently and quickly did so.

The judge rapped his gavel but the crowd was in an uproar and would not be quieted. "This court is in recess!" He yelled as he rose from his chair and departed the platform to the left.

Hiram turned and gazed at Tramell in bewildered amazement. "How did you know that he would refuse to fire the flintlock pistol?"

"I didn't. It was Olin that told me to insist upon it."

"What!" Hiram was stunned and he turned towards Olin. "Are you insane? What if Moses had simply gone to the window and happily fired the gun?"

"It would never have happened, Olin assured him. "If we had demanded that he eat a piece of his Mom's apple pie with her sweet ice-cream upon it he would have refused, because it would be us demanding that he do it. It is in his nature. "

"Wasn't there at least the smallest risk that he would fire the weapon?"

Olin shook his head negatively. "No, none whatsoever. But if we had not demanded that he go to the window and fire it he would have requested the court's permission to do so, and the pistol would have fired because someone has quite obviously cleaned, oiled and reloaded it.

If it had passed in that manner then perhaps more than half the people would have believed him saying that Mr. Michaud had not fired it in anger. I knew that there could be only one alternative and that was to demand that he fire it knowing that he would refuse. And I believe that refusal has placed the correct suspicion into the minds of the judge and the spectators that someone has tampered with the pistol."

Hiram remained in a state of anxiety. "But he might fire it after the recess when he has had a chance to think it over."

"It no longer matters if he does or does not," insisted Olin. "You heard the crowd hollering for him to do it but still he refused. The crowd will not believe any part of his doing it now, they will always suspect skulduggery, and they should. If it fires off with a bang they will guess that it was reloaded and dismiss it as evidence. It really is a matter of the Circus Maximus. The crowd is now with us and if it is found to be murder after this, many of them will rise up in revolt. And I believe that the judge is well aware of that

possibility."

Hiram slumped into a more relaxed posture. "I believe that you are correct. But I also believe that it was a great risk to take."

Olin smiled. "Sir, you lack confidence in the profound fact of the frailty and stupidity of human nature."

## Chapter 31

While Tramell, Olin and Hiram continued to talk there were three people in a small office on the first floor of the town hall that were engaged in an intense conversation. One of them was Babette Michaud and she sat trembling and crying in a straight-backed oak chair. The slave trader Delmar Stackton was glowering at her. He was a heavy built, middle aged man and quite tall. His suit was well tailored, his shirt of white silk and his boots of fine leather. He was clean-shaven and his jet-black hair was neatly combed straight back above his very dark brown eyes. He was talking in a demanding voice to Babette. "You just get up on that stand and say that you saw Tramell shoot your husband in cold blood after Claude had thrown his pistol down and raised his hands."

"I'm too afraid. Didn't you hear the way that the crowd was yelling? They would kill me outright if they think that I'm lying. They already think that the prosecutor is lying. I can't do it. I am just so frightened. And Sheriff Tramell is there and armed with the very pistol that killed Claude. He might draw it out and shoot me in the heart like poor Jacques. Who could stop him if he did it quickly?"

Stackton tried to convince her to testify. "Remember Mrs. Michaud, there is five thousand dollars for you if you get on the witness chair and just simply say that you saw Tramell murder your husband. It is just as simple as that. Then you will be out of the courtroom quickly and safely."

The woman was torn between greed and terror and terror won out. "I just can't! They will know that I am lying. They will be able to tell I'm sure. And he will kill me!" She crumpled further into tears.

Stackton turned to his first mate Vernon Pentahelm, and shook his head in resignation indicating that he was now convinced that the woman would never get upon the witness chair.

Vernon was also well dressed and rather fastidious with his appearance, something that had attracted Mrs. Pentahelm to him. He was tall, slim of build, with neatly combed black hair and brown eyes. He wore a thin black mustache.

Stackton instructed his first mate. "Vernon, take kind Mrs. Michaud back to her farm and give her a thousand dollars for all the trouble and grief she has experienced."

The woman's spirits perked up at both the thoughts of a thousand dollars and relief at the fact that she would not have to testify. She rose and embraced Delmar Stackton. "Oh, you kind and wonderful man, thank you, thank you so very much."

He patted her upon the back consolingly. "Now, now. Everything is finished here. Vernon will drive your wagon back to your farm, but go a roundabout way so as not to be seen together."

She turned and started towards the door as behind her back Delmar flicked his right thumb across the front of his throat and Vernon Pentahelm observed the gesture. He closed his eyelids slowly and then reopened them as a sign that he understood his instructions. Delmar would not for an instant consider leaving the woman alive to tell tales.

In the meantime in the town hall word had been received from the judge that the

inquest would resume within the hour. The people milled about discussing the proceedings and the topic of the unfired flintlock pistol. The vast majority now believed that someone with the intent of hurting Sheriff Tramell's case had reloaded the pistol.

Stackton had sent pro-slavery men and women to mix with the townspeople in an attempt to generate suspicion that Tramell had actually murdered the Michaud's, but their theory was falling on deaf ears. Almost everyone in town knew Sheriff Tramell personally and none of them really believed that a man of his character would commit murder. They heard the judge rap his gravel and all attention turned to the front of the hall.

The judge declared, "The Inquest has resumed. Mr. Prosecutor, you may proceed."

"The prosecution has presented its case and believes that it has shown that Sheriff Tramell is guilty of murder." Moses then sat down. The flintlock pistol was nowhere in sight.

Olin leaned over towards Hiram and whispered. "I thought that he would not bring the pistol back into the hall. You should demand that he do so. But do not demand that he fire it."

Hiram rose and addressed the judge. "Your Honor, the defense demands to know where the prosecution has hidden the evidence. We demand to know where he has hidden the flintlock pistol." He heavily emphasized the word "hidden".

There were exclamations from the crowd. "The prosecutor has hidden the pistol. We knew that there was something crooked going on!"

H. Arlen Moses' mouth was moving but no words were coming out of it. He was in a total state of confusion as a result of Hiram's words and the crowd's agitated statements.

The judge gazed down at Moses. "Mr. Prosecutor, where is the weapon that you were waving all about the courtroom earlier in complete disregard of the fact that it was loaded, as you yourself stated?"

Moses stood up. "Your Honor, it is in the custody of my associate prosecutor and I will go and retrieve it." He left the room.

The crowd was engaged in low conversations and the judge permitted it until Moses returned with the pistol and set it down on his table. He then rapped his gravel for order and the crowd hushed. "The defense may proceed to call witnesses," he informed Hiram.

Tramell had previously instructed Hiram that he should call Ingmar Olsen to the witness stand and he had instructed him as to the questions that should be asked. Hiram did not know why he was to do it but he assumed that Tramell had good reasons.

"Your Honor we call Ingmar Olsen to the witness stand."

Olsen pushed through the crowd and moved to the witness chair where the judge swore him in. He was nervous because it was he who had cleaned and reloaded the flintlock pistol and he wondered if they somehow had knowledge of that fact.

"How did you learn of the two deaths of the Michauds?" Hiram asked.

"My son Glorth was in town and heard the news. He then rode to my home and informed me of it."

"What did you do then?"

"I hitched up our two-bench wagon and Glorth, Evian, Samantha and I rode quickly to the Michaud farm to attempt to bring comfort to Mrs. Michaud."

"Was the Mortician Froncet there when you arrived?"

"Yes, he was still there."

"When you entered the parlor of the house did you observe a flintlock pistol upon the table?"

Olsen flushed. Now he was sure that somehow they knew that he had cleaned and reloaded the pistol. He answered finally. "Yes, I saw it there."

"Did you touch it?"

"Hell, no!" he lied.

"Did you observe anyone else touching it?"

"No. Not that day, but the next day Mr. Moses arrived and picked it up and took it with him"

"From the first day that you arrived at the Michaud farm until today, did one of your family stay with Mrs. Michaud?"

"Yes, Samantha has stayed with her all the while so that she would not be alone."

"Thank you, Sir," said Hiram and he glanced over at Moses who did not appear to want to ask any questions of the witness. "Your Honor, we now call Samantha Olsen to the witness stand."

Samantha was ecstatic to now be the center of attention and she hurried to the front of the courtroom to be sworn in and sit in the witness chair.

Hiram asked her, "In all the days and nights that you stayed with Mrs. Michaud did you ever hear a gun fired or see a stranger about?"

"No."

"Where did you sleep while you were there?"

"We moved bedding to the front porch for a breeze as the nights were very hot and muggy and it was not pleasant to be inside."

"Then you were on the porch all the nights that you were there, only a short distance where Mr. Michaud had once lay dead?"

When he stated it that way it filled her with morbidity. "Yes," she answered with a shudder.

Hiram concluded the questioning. "Thank you, Samantha, that is all."

She appeared quite disappointed that the matter was over so quickly.

Tramell whispered to Hiram. "Inform the judge that there is evidence at the Michaud farm that the prosecutor has failed to obtain and that we demand that the court move itself to there so that we might gather it up."

Hiram rose. "Your Honor, it is necessary to reveal to the court that some evidence still remains at the Michaud farm and that the prosecutor has failed to bring forth that evidence." Hiram had absolutely no idea what that evidence might be.

H. Arlen Moses was on his feet, his face contorted in confusion and rage. "What the hell are you talking about?" he demanded of Mr. Hiram.

"Just as I said, there is evidence at the Michaud farm and the court is respectfully

requested to move itself to that location to witness the recovery of that evidence and to safely secure it. Unlike the flintlock pistol." The last statement was uttered in a derisive tone of voice.

"Objection!" screamed Moses.

The crowd was becoming vocal and someone asked out loud "What is the prosecutor hiding? Why didn't he bring all the evidence?"

There were cries of "Hear, hear," from others.

"What is your objection to retrieving evidence, Mr. Prosecutor?" asked the judge.

The crowd leaned forward in their seats the better to hear the answer.

Moses stuttered. "No, Your Honor, I do not object to that. No of course not. I object to the reference to the flintlock."

Another whisper from Tramell and Hiram was on his feet. "Does the prosecutor object to bringing the flintlock back to the farm? What could his objection possibly be?"

The judge gazed questioningly at Moses as he awaited the man's answer.

"No, I don't object to that either though I do not know why it would be needed there."

"Well, very well then," the judge said. "A little fresh air will do us all good. Let us remove ourselves to the Michaud farm. The court is in recess." He rapped his gravel.

The crowd was on its feet instantly and got jammed up into the doorway as others climbed out the open windows. Everyone scrambled to get out of the town hall and into their wagons, or upon their horses, to ride as quickly as possible to the Michaud farm.

The judge rapped his gravel to get the attention of Tramell, Hiram and Moses. "Let us sit a while and let the mob proceed as they will raise a tremendous dust cloud in their galloping and we should wait until it passes." He gazed down at Sheriff Tramell. "It has been an energetic defense so far."

Moses jumped to his feet and shouting. "I object!"

The judge gazed at Moses for several moments with disdain. "The damn court is in recess. How the hell can you make an objection? Sit down and shut up."

Tramell addressed the judge. "It is very good to see you again Sir, and in good health it seems from your robust appearance."

They chatted amicably for some minutes until finally the judge concluded that perhaps they should be on their way to the Michaud ranch.

Upon their arrival at the ranch they found more than a hundred onlookers. Some were standing about the yard, others upon the porch, and still others were mounted upon their wagons and horses.

Sitting upon Hiram's wagon the judge rapped his gravel on its wooden seat. "The inquest is back in session."

Tramell dismounted from his horse and as the crowd parted for him he walked towards the spot where Claude Michaud had fallen after being shot. He turned to Moses. "Hand me the flintlock pistol."

Moses cried out to the judge "I object! He wishes me to place a loaded weapon in his hands and God knows what he might do with it!"

The judge was exasperated. "The man has in his holster a Colt Navy with six .44



cartridges loaded and you fear to hand to him the most notoriously inaccurate single shot weapon ever devised!" he fumed. "Hand him the damn gun!"

Reluctantly Moses complied with the order and then stepped back and away from Tramell. The sheriff looked about a bit and then beckoned Mortician Froncet out from the crowd. As the man hesitantly stepped forward Tramell asked him, "Can you verify that it is about here that Claude Michaud laid when you arrived?"

"Yes, as near about as I can tell."

Tramell raised the flintlock in the direction that Claude Michaud had discharged the pistol and the crowd scattered, tumbling over each other to get out of the line of fire. When all were safely some distance away Tramell sighted upon the spot where he believed Michaud's pistol ball had impacted the earth and fired the flintlock. The gun roared and bucked in his hand leaving a cloud of smoke hanging in the air as the lead ball struck the ground and raised a puff of dust. He walked over to that spot and stood on it.

"Could someone get a shovel from the barn?" he asked.

Several volunteers rushed to do so. When they returned he gave them instructions. "After I step away, dig down at the spot where I am standing and get that lead ball back."

The men dug with industry, quite happy to be a direct part of all the excitement. Soon one of them stooped down, and reaching into the shallow hole he picked something up and shouted. "Here, I have the flintlock ball!"

The other man also stooped and picked something up. "No you don't have it, I do!" he said as he held up a second flintlock lead ball.

"Bring that evidence to me," the judge ordered. They rushed to comply. He held the two lead objects in his hand and looked at Tramell inquisitively.

"One of them is the ball that I just fired," stated the sheriff. "The other is the ball that Michaud fired at me during our duel."

There were murmurs from the crowd as those in front passed back the information to those in the rear.

Moses was suspicious. "How do we know that one of those was not fired days after the murder to plant, excuse the expression Your Honor, evidence?"

The judge scoffed. "Because the shot would have been heard by Samantha Olsen or she would have observed a person burying it. I find that the evidence is conclusive that Claude Michaud had fired a gun at Sheriff Tramell and that is how Tramell knew where to find the spent ball. The determination of the Court of Inquest is that no murder has been committed; that Sheriff Tramell acted in the line of duty and that he fired in self-defense. It is not possible for any court to find otherwise."

Cheers rose up from the crowd and several people stepped over to Tramell to shake his hand and pat him on the back. The pro-slavers turned away in sulking anger silently promising that the matter was not yet at an end.

Ronald O. Archimbault and his son Oke had not attended the inquest, as the townspeople would have viewed them as two vultures awaiting a victim. When Tramell returned to the jail, he informed them that at least for the moment there was no one to hang.

Oke took heart in the news. "I am glad of that, as it would have pained me to have heard your neck snap, as you have been very hospitable towards us. But, I must say that it is truly a fine new gallows and it would have been nice to have deflowered her. Are you very sure there are no felons about that you intend to capture shortly and that we should wait here in town for such an occurrence?"

Tramell smiled at the boy's words for the reason that none of them had been spoken in jest. "No. You will have to search out work at some other place. For some reason, I suspect that the two of you will never lack for employment."

Ronald bade him goodbye. "Well, we will retrieve our mounts from Lorrent's livery and be on our way shortly. It has been a pleasure and an honor to have made your acquaintance Sheriff Tramell."

They shook hands with the sheriff, gathered their kits from the jail cell and departed for the stable.

## Chapter 32

The last months of 1855 had gone well for just about everybody. The members of the Association had prospered and the town had been relatively free of illness. The boys' educations were advancing satisfactorily and they were growing into maturity much faster than the typical teenager because of their experiences with work, tools, nature, reading and the camaraderie of the group.

The schoolgirls of the town were much impressed with the accomplishments of the lads in building the cabins and the waterwheel. They also were not put off by the fact that a good diet and strenuous labor had clearly developed the boys' physiques and that generated some anxiety among the chaperones who strove to keep a watchful eye upon the lasses.

The morning of Tuesday, January 29, 1856, dawned with the sun rising into a cloudless sky. In the train barn Olin lit the forge fire with a match set to wood chips as the other laborers huddled around to await the warmth.

Mr. Martinmon entered the building and catching Olin's eye he motioned to him to step away from the others for a private conversation. They walked further into the cold building before the man spoke in a hushed voice. "It seems that peace and quiet will not last. Segall has heard that once again some dreadful act is going to be attempted by the slavers against Sheriff Tramell. He does not know what, where or when. It seems that Stackton has not given up in his desire to kill the sheriff by hanging or otherwise."

Olin frowned. "It seems that my ruse of a large abolitionist meeting simply is not going to hold the slavers at bay," he conjectured. "The number of runaway slaves passing through here on their way to Montreal by means of the Underground Railroad has increased considerably during the past months. I would guess that Stackton feels driven to commit some felonious act to scare the abolitionists who are helping them. I tell you Sir they are a devious lot. They have even taken to scaring little girls."

"What the hell! How?" asked the man with indignation.

"They spread stories that are intended to disrupt the life of families that harbor runaway slaves. They whisper that if a young girl eats from a plate that a Negro has once eaten from, even if it has been quite thoroughly washed, then that girl will grow up to have black babies no matter who she marries."

"Who the hell would believe such craziness?" asked the astonished Martinmon.

"Unfortunately, very many people. The girls live in some fear and dread for years as they approach marriage. You must admit that almost none of them have any instructions in the matters of sex. Often words can have the same effect as deeds," Olin remarked. "If the slavers can disrupt the Underground Railroad with words, at no cost, that is certainly cheaper than paying felons to commit murder to achieve the same end."

"What about the safety of the sheriff?" Martinmon asked.

"Their evil logic is correct, I must admit," Olin replied glumly. "If they demonstrate that they can harm the sheriff, then no one will feel safe from them."

Martinmon said, "Well, we can't stay with the sheriff every moment of every day. Perhaps the sheriff should leave town for a month or two?"

Olin gave out a short laugh at the absurdity of the suggestion. "The sheriff would

never run. He would want to stay and fight it out."

"But they could sneak upon him in the dark of night when he is asleep and easily kill him."

"That is not what they will do," Olin stated.

"How the hell do you know?"

"Because cowards and killers have predictable natures," replied Olin. "They want to warn off all the abolitionists in the area and to do that they need a public spectacle. It is more probable that these new felons might shoot him down in broad daylight when the streets are crowded with townspeople and the more spectators the better. No one would testify against them out of fear of their own murder."

Martinmon was exasperated by the lack of a plan to protect the sheriff. "We have to do something, damn it!"

"Go into town and pay a boy to tell the sheriff to go to your office and I will meet you there," Olin said. "That is better than the two of us being seen going to the sheriff's office in town for talks."

Martinmon agreed, turned on his heel and left the barn.

Olin decided to give the sheriff a half hour to get to Mr. Martinmon's office and turned back to his own work. Some minutes later he observed the telegraph operator Stanley Kiowski enter the barn and nervously looked about. Not seeing Martinmon he walked over to Olin. "I read an odd message last night. It was an order to the Railroad Corporation in Concord to send down to Andover a cattle car. The freight charge was to be for eleven horses fully saddled and that was how the car stalls were to be rigged up."

"Anything else?" asked Olin.

"Yes. There was an order to add a passenger car and it was to be reserved. There were to be no tickets sold to the public for it. Probably it will hold eleven horsemen. The destination is our railroad station."

"What is the arrival date and time?" asked Olin.

"Five minutes past eight o'clock in the morning Sunday, February third."

Olin gave him instructions. "Tell your cousin, the telegraph operator in Milford, that he should appear to accept messages from the Olsens, or anybody else, to Stackton in Mechanicsville but not actually send them." The telegraph operator nodded affirmatively. Olin patted Stanley on the back. "You have done a good job. Let me know if there are any other interesting messages? I have to go down to see Mr. Martinmon now."

When Olin entered the railroad supervisor's office he found the two men awaiting him. "I have recently learned something that will take the guess work out of a plan to thwart the slavers. On Sunday at eight o'clock in the morning eleven men with saddled horses will arrive by train." He addressed himself to Tramell and said, "I believe that if you confront them they will shoot you down in public and have a horse drag your body up and down the street in front of the townspeople. Or quite possibly, they might use you to "deflower" the gallows."

Tramell and Martinmon remained silent as they agreed in their minds that one or the other thing would probably be the dire result if Tramell acted alone.

"I have given it some thought on my way here," Olin continued, "and I have a

suggested plan." It took him nearly a quarter of an hour to reveal the plan to them and they listened intently. The sheriff and Martinmon nodded ascent again and then all three left the office.

Olin went directly to Macnock's store to talk to Judy. "I need you and the other woman to do a brave thing," he informed her.

Judy's interest in what he had said was twofold. First he had called her a woman, and secondly he had said that a brave thing needed to be accomplished. What must we women do?"

Olin said, "You must do something before the eyes of a band of murders that might result in some of you getting shot."

"Is that all?" she asked bravely.

Somewhat later, Olin left the store and walked to The Rocks to talk to the boys. Upon his arrival he called them all together from their various chores. "I have some news for you all."

They stopped what they were doing and awaited his next words.

"Eleven murderous horsemen will arrive at the train station Sunday morning. We are going to stop them from doing any harm."

"We?" from several of them.

"And the women of the town, also." Olin responded. "We must cause the cavalry to dismount without their volunteering to do so. The best manner in which to do that is to get them to charge up the main street and then quickly raise a chain across the street to trip the horses. We can entice them to charge up the street by presenting ourselves as an easy target at the other end of the street. They will relish the thought of rampaging through us and knocking us about and trampling some of us with their mounts and perhaps shooting three or four of us."

The boys winced at the image of disaster and mayhem that formed in their minds. "Did you just picture in your minds large horses with heavy hooves knocking you about and perhaps trampling you if you fell to the ground?" Olin asked.

"Yes!" they exclaimed in horrified unison.

"Good. That is the same image the riders will have in their minds and they will rush towards us to fulfill it. Our goal must be to make it appear that it can be easily done and that there is nothing whatsoever to stop them."

Olin proceeded to explain the plan to them. "About half way up on one side of the street, a little way back in between two buildings, we bury a six-foot long log on end until only a foot and a half of it remains sticking up above ground. That will be a stout anchor for a long chain. To the top of that post we will firmly fix one end of a chain that has enough length to reach all the way across the street. We will cover it somewhat with the dirt of the street so that it is not easily seen lying there. Next we will construct a lever device by the means of which the chain can be suddenly pulled up and held taut across the street at a height of about a foot and a half. That should be good for tripping horses."

He waited to see if the boys had any questions or comments.

"That would seem to need something stout as a means to first pull and then hold the chain up," Andre surmised. "I'm going to guess that you have a plan for us to make

some such thing out of logs."

Olin smiled satisfaction at Andre's observation. "Exactly. We will construct a device out of logs that can be operated to cause the chain to rise up. It will give us a great advantage by means of lever action. The women will be the force that pulls upon a rope that will cause the device to operate at just the desired moment and trip the horses. The stoutness and heaviness of our logs will hold the chain securely against the force of the animals."

Wolfi was concerned for the welfare of the women. "Why not have men operate the lever?"

"They are needed as bait up at the end of the street. If the horsemen do not see the men then they will suspect an ambush from the sides and alleys and only slowly ride up the street. We need them to gallop towards the men with the intent to wreak havoc upon them."

The boys were becoming a little bit anxious. "It all depends upon very good timing. What if something goes wrong?" Wolfi asked in a worried voice.

At that moment Zygmunt and Paddy entered the cabin in search of lunch. "Here are more heroes," exclaimed Olin.

"Why are you in need of heroes?" asked Zygmunt with guarded curiosity.

Olin told him. "Because there is a need for four of us to be close in front of eleven guns that are aimed at us by men with a great deal of animosity."

"Well, I am so glad to be just in time," Zygmunt stated flatly.

"Have you ever been shot at?" Olin asked him.

"Yes, many times. That is why I am here in America, I grew tired of the revolutions in Poland." Paddy paled slightly but said nothing.

During the course of the next hour and a half Olin explained the remainder of the plan to the boys and they took heart again. In fact they began to look forward to the encounter that would probably be the most exciting and dangerous event in which they would ever participate.

In the following days and nights the boys worked intently upon the items that would be needed for the battle with the horsemen and finally on Saturday they completed the installation of the posts on each side of the street and set in place the lever device and the long length of chain. The boys had previously loaded two of Lorrent's wagons and covered the cargo with large pieces of canvas. They drove the wagons into their proper positions on the street, set the hand brakes and unhitched the horses, which they returned to the stable. All seemed ready.

On Sunday, February 3, 1856, the sun rose at exactly 7:00 AM. The townspeople were gathering at the far end of the street away from the train station and stood about in their thick winter clothes with many of them stomping their booted feet in an attempt to maintain circulation to their cold toes. Fire logs were obtained and three separate fires were built upon the street for the benefit of the people who gratefully gathered about them.

Mr. Macnock had set up a table nearby and a breakfast feast of breads, jams, meats, hard-boiled eggs and hot coffee was spread out upon it. This caused some of the people to engage in macabre humor about it being their last meal. A second table

was beside the first and its contents were covered with a piece of canvas.

Olin and Zygmunt were on top of the wagon that was positioned with its rear pointed down the street in the direction of the expected approach of the horsemen. Paddy and Wolfi were atop the other wagon that was further back and askance of the road. The cargoes of both wagons still remained covered with large pieces of canvas.

Mary Eldor carried food over to the wagons upon which Olin and Zygmunt waited. "Why," she asked, "must there be two of you?"

Olin shrugged slightly. "If one of us gets killed the other must finish the job that we are here to do."

In the entire crowd of citizens there was not a rifle or handgun showing but many of the men held pitchforks, rakes, axes and scythes. From all outward appearances they were a poorly armed group of common people that would pose little threat to a horde of vicious gunmen.

The women had gathered together but said very little to each other. Olin looked over at Judy and she knew that it was time for the women to gather behind the lever device and be prepared to grab the rope. She quietly informed the women and they silently walked down the street to the alley entrance where they were to wait for Harvey Moulten to raise his revolver.

As the minutes passed there was not a single sound from anyone or anything and the silence hung thick with trepidation. Finally they heard the train whistle off in the distance announcing its approach to the town and the arrival of the vile horsemen.

The railroad tracks had years ago been laid such that the train crossed the town street before it arrived at the depot station. Mr. Martinmon had discussed a plan with the locomotive engineer, his brother in-law, on the previous Friday when the train had made a scheduled stop at the town. It had been decided where and how the train should be brought to a halt on this Sunday morning.

One part of that plan would cause the train to arrive a few minutes early because the engineer had begun increasing the speed of the train, instead of decreasing it as he would normally do, as the distance of the locomotive from the street crossing diminished. In the cab of the locomotive the engineer and the fireman extracted pistols that were hidden in their lunch pails and stuffed them into their belts. The manner in which they planned to stop the train might cause one or more of the eleven nefarious passengers to wish to do them harm and they intended to be prepared to defend themselves in case of such an event.

As the engineer saw the street crossing rapidly approaching he placed his hand on the brake lever. At what he gauged to be the appropriate moment he heaved upon it to freeze up the brake shoes against every wheel of the train, as he pulled back on the throttle. The train shuddered and abruptly slowed as steel brake shoes pressing on iron wheels screeched in a hot frictional agony of grinding metal. Normally, as a train slows the engineer reduces the brake pressure because the coefficient of friction of the steel brake shoes upon the train wheels increases with a reduction of speed. In this case the engineer maintained the maximum pressure in order to bring the train to as sudden a stop as possible.

The eleven men in the passenger coach were violently catapulted off the oak

benches due to their inertia. Their bodies would continue traveling at the train's original high speed until something occurred to slow their motion. They slammed into the hard oak benches in front of them and several had teeth knocked out against the dense heavy wood. Their rifles soared through the air and smashed against the front wall of the car and that caused one of them to discharge, the bullet shattering the glass of a window. They were completely disoriented by their sudden injuries, the screeching bakes and the rifle shot.

In the cattle car the horses screamed in fright and pain as they were violently thrown up against each other and the front wall of the cattle car. The screeching, squealing and groaning of the train's brakes carried on the frigid morning air to the ears of the townspeople at the other end of the street. The citizens flinched and ducked down at the sound of the rifle shot. They saw sprays of sparks fly from all the brake shoes and from the locked and sliding wheels upon the steel tracks as the train shuddered to a stop with the cattle car straddling the street crossing.

All of the armed men inside the coach drew their revolvers as they fully expected that someone outside would start firing into them. They had thought that their job would be like shooting fish in a barrel but now it seemed to them that they were to be the fish in the barrel. The initial part of Olin's plan had been to transform the calm self-confidence of the well-armed felons into a state of pain and confusion and the abrupt stop of the train had achieved that goal.

The train's fireman jumped down from the engine compartment, ran to the coupling of the locomotive to the coal car, separated them and then climbed back up into the cab of the engine. The engineer throttled up and the locomotive moved further down the tracks and away from danger.

In the passenger car Arnold Catkin stumbled to his feet as he held his hand to his bruised left shoulder. He was a large man of about fifty years of age with long shaggy brown hair and a full beard. As an accomplished murderer he had served the slave runner Stackton in many vicious activities over the years.

The eleven men began descending to the ground to walk back to the cattle car where the horses were still in a noisy panic. The cattle car door was slid back on its runners and a couple of the men climbed up to check the horses. One man observed that his horse had a shattered foreleg and in reflexive concern for the injured animal he drew his revolver and fired a bullet into its forehead. The muzzle blast of the revolver in such close quarters drove the other horses into a renewed and much intensified frenzy. They repeatedly kicked out at the men with their hind and forelegs, breaking the hip of another man who then fell beneath the stomping hooves.

Catkin had seen what had occurred and his furor escalated markedly. In his rage he nearly decided to shoot the man that had fired the revolver but decided to do that after they finished their business with the townspeople. His other men would not complain, as the dead man's pay would be divided among them all.

The men mounted their horses and Catkin sat a moment in his saddle as he glared up the long street at the crowd of townsmen who were holding axes, rakes and scythes as their weapons. He concluded that it would be an easy matter to ride down such lightly armed opponents. He observed the two wagons with pieces of canvas



covering their cargo and these gave him pause. The closer one, which was about three hundred feet away, had its back end towards him and his mounted riders. The more distant wagon had its back end towards a grove of trees that were nestled between two buildings. He wondered if there might be armed assailants beneath the rough fabric in addition to the two people that he could see standing in each wagon. But if there were, why had the wagons been placed in two different directions? The question nagged at his mind and distracted him. He had intended only to publicly hang Sheriff Trammell upon the gallows that had been constructed adjacent to the jail but now he was inclined to first break some bones of the townsmen in the crowd by running them down with the horses.

He gave his men their instructions. "We are going to ride over them. There may be armed men in those wagons. If anyone raises a gun towards us then kill them. When we get to those fires throw some of the burning logs into the store windows. We might as well stay warm in the doing of this." He drove his horse forward with spurs and rein lashes and his men did likewise. Several of them fired pistol shots into the air and all of them yelled evilly as they raced up the long street.

Harvey Moulten observed the horsemen break into a gallop and he raised his revolver as a signal to Judy and the other women. As she and the ladies turned to run down the alley to grab hold of the rope, Samantha stepped into the street and began yelling towards the approaching killers. "There's a chain! There's a chain!" she cried out in an attempt to warn the killers of the impending danger. She had convinced herself that Catkin and his men would rule the day and she very much wanted to be aligned with the winning side.

Judy did not think that she could punch Samantha hard enough to knock her out and thus quiet her, so she pronged out the index and middle fingers of her right hand, grabbed Samantha's shoulder with her left hand to spin her around and then jammed her two fingers into the girl's eyes with as much force as she could muster. Samantha screamed in agony and fell to her knees wailing and temporarily blinded, no longer capable of giving a clear warning to the approaching horde.

As Catkin whipped his horse forward he had seen a man who was pointing a pistol skyward, instead of at him. He was next confounded to see the two people in the closest wagon take puffs upon cigars as the smoke from them drifted away on the cold morning air. It was absolutely a bizarre sight, as if the two were out for a morning smoke and were going to leisurely monitor his progress up the street. Nothing that Catkin saw made any sense to him and he considered reining in his group of malicious thugs to take time to assess the situation. But he found that he could not resist his murderous and impulsive instinct to trample the townspeople so he lashed his horse onward yet harder.

Judy turned and ran down the alley to join the other women and grasped the rope just as Harvey fired his revolver. The women ran with the rope yelling with exertion and applied every bit of strength and will to carry it swiftly along in order to pull the lever log over. When the lever whacked the ground the rope went taut and the women leaned their weight into it to assure it remained so.

Catkin had seen the girl run into the alley and it made sense that she would hide,

but why had the man fired into the air instead of at him and his men. He was then startled to see a vertical log on the right side of the street tilt backwards and across the entire street the earth seemed to rise in some sort of eerie, thin and dusty line. He did not know what it was but he knew with certainty that it was meant to harm him and his men.

There was no time left for him or the others to jump their horses over it or to rein in their mounts. In an instant of time the horses in front struck the chain and began to go down as the horses to the rear collided with the falling animals and piled up on top of them. All nine horses and ten felons toppled into a chaotic heap of men and beasts with most of the men losing their grip upon the revolvers that had been in their hands.

Catkin rose stumbling to his feet in a terrible rage that demanded that he kill every single person that came into his gun sight. As he began to level his revolver at the townspeople some fifty yards further up the street he realized that there was a wagon with two cannons in its bed and they were pointed directly at him from a distance of a mere forty feet. He then knew the reason for the canvas cover that had now been pulled away. If he had seen the cannons earlier he would not have ridden up the street. In his malevolent mind he thought "If I catch the bastard that came up with these ideas I will shake his hand in admiration before I shoot him."

It was clear to him that if the cannons were fired with grapeshot at that close of a range he and all of his men would be killed. To his alarmed dismay he saw that a man was lowering a lit cigar to the fuse hole of the cannon. As he tried to bring his gun around to shoot Zygmunt he realized that it was too late. Fizzling white smoke was issuing from the touchhole of the cannon and his reflex was now to hunker down and present as small a target as possible.

Olin had some days earlier told Zygmunt, Paddy and Wolfi that there would be two people on each of the wagons so that if one were shot and killed the other might still be able to fire the cannons. He made it abundantly clear that they would be in the greatest danger of all during the confrontation. All of them had resolutely accepted the assignment.

When the fuse powder that Zygmunt had ignited with the ember of his cigar met the main charge, the cannon fired directly into the ashen faces of the felons. The violent blast impulse from the cannon actually pushed Catkin and his men backwards a couple of steps and the roar of the gun momentarily stunned and deafened all of them. The horses were screaming and squealing as they knocked down and trampled two of Catkin's men in their frenzy to escape from the hell of hurt and noise.

The cannon had been loaded with two pounds of gunpowder but no shot or stone. The plan had been to stun the invaders with a cannon blast of powder only, immediately after their collision with the chain, in order to continue to disorient and intimidate them. It was hoped that they would surrender at that point. If not, then the second cannon, which was loaded with powder and stones, would kill many of them in self-defense if the next step of the plan failed.

Catkin was struggling to regain his senses after the shock of the blast. He and his men began to realize that they were still alive and had retained all of their body parts, which caused them to guess that there had been no projectiles in the cannon.

Catkin again tried to raise his revolver towards Zygmunt and Olin in the wagon. He saw that the man was holding a lit cigar near the fire hole of the second cannon and was shaking his head to indicate that Catkin should not lift his revolver any higher.

Olin was pointing back towards the other wagon where Wolfi was applying a lit cigar ember to the touchhole of his cannon. That gun had been loaded with a pound and a half of gunpowder behind a load of numerous small stones and was aimed at a grove of trees which had trunks on the order of six inches in diameter, a dimension similar to a man's leg. The gun fired with a tremendous blast and the recoil drove the wagon several feet backward even though the brakes were set hard. The stones cut completely through the tree trunks, violently shattering them in to a shower of bark and splinters. Four of the trees had foot high sections of their trunks disintegrate into vacant space due to the force of impact of the stones, and for a second the severed trees appeared to hang in space above the blasted stumps before the force of gravity caused them to drop straight downward. As their splintered ends struck the shattered trunks the trees momentarily stopped and then slowly toppled over in several directions.

Catkin and his men were deeply impressed by the effect of the cannon and they were certain that if Zygmunt lit off his second cannon their fate would be the same as that of the trees. All of them except for Catkin and one other man hurriedly raised their hands in surrender. One dropped to his knees in supplication for mercy. Catkin had never before in his life surrendered to anyone and even with his existence in immediate danger he was not about to concede to the townspeople.

When the marauders had first begun to gallop up the street, Mr. Scalodi had thrown the canvas off the second table to reveal rifles and pistols that he and other men quickly grasped, as the use of farm implements as weapons had been a mere deception. Mr. Scalodi was an experienced hunter of deer and bear and an expert marksman. His instinct was to align his rifle sight upon the leader of the villains and to keep it there through all that transpired. After the second cannon had been fired into the grove of trees he became convinced from Catkin's expression of hate and fury that the man was not going to surrender. As he saw him once again begin to raise his revolver towards Zygmunt and Olin he took careful aim at the man's head. If he was going to shoot Catkin he wanted the effect to be immediate to prevent allowing him to harm anyone. It would be the first time that Scalodi had ever killed a man but he viewed it more as dispatching a rabid animal, a necessary evil.

From the corner of his eye Catkin was instinctively aware of Scalodi's steadiness of aim and his shooting stance that spoke of years of experience with a rifle. That concerned him more than looking down the barrel of a cannon. His mind calculated his chances of swinging his revolver towards Scalodi and either hitting him with a snap shot, or causing him to flinch and miss with his rifle shot thus giving him a chance for a second well aimed pistol shot. His nature demanded that he not surrender under any circumstances and he began to pivot towards Scalodi while sinking to his knees in an attempt to be below the projectile path from the cannon. He had decided that his men could fend for themselves against the cannon as their lives were of little consequence to him.

As the other criminals saw Catkin's hostile movement they became convinced

that now Zygmunt would fire the second cannon. One fainted from the expectation. The others openly pleaded, some with tears in their eyes, thrusting their hands up as far as possible to emphasize that they were unarmed. The only other man that had retained a grasp on his pistol now dropped it and raised his hands.

Scalodi instantly recognized that Zygmunt and Olin were not to be Catkin's target so he no longer felt compelled to kill the man. He aimed for the man's right shoulder and squeezed the trigger in the manner of a marksman as Catkin's revolver spat flame and smoke in his direction. The murderer's slug passed no closer than a foot from Scalodi's head but the store owner's bullet caught the felon in his shoulder and spun him sideways and half around. In the shock of the bullet's impact Catkin lost his grip on his revolver and it fell to the ground.

Zygmunt was in a state of high caution due Catkin's pistol firing towards the end of the street and the sound of a rifle shot, so his hand with the lit cigar moved towards the touchhole of the fully loaded cannon. The prolonged terror of the felons, and now their seemingly immediate demise, took its toll. One of the criminals sank to his knees as his legs weakened due to the strain of pure fear. The other's loudly begged for their lives. Again it would be demonstrated that the persons most concerned with their own welfare would be the ones that were the least concerned with anybody else's.

Sheriff Tramell and several of the townsmen walked forward with their guns drawn and collected all of the felon's weapons. The sheriff then called for the handcuffs that had been under the canvas that had covered the townsmen's pistols and rifles. These irons had been borrowed from the prison warden in Manchester. The keyed manacles were placed around the wrists of the thugs, including Catkin's as he moaned in pain and continued to bleed from his wound. The sheriff reached inside his thick winter coat, withdrew a number of wanted posters and compared the drawing on them to the faces of the captured men. Among them were two men wanted for murder, Catkin and one other. There was also one wanted for bank robbery.

Because his jail could not hold so many arrested men the sheriff had made arrangements with a fellow sheriff that they would be transported to Manchester by use of that city's convict wagon. It now came into sight at the end of the street, the driver having realized that the situation was under control. The felons were loaded into the wagon bed, which was encased by an iron barred cage, and the gate of it was secured with a large brass pad lock. The floor of the wagon was covered with hay for the prisoners to sit or lie on and one of them stuffed a handful of it inside Catkin's shirt in an attempt to stop the bleeding of his wound.

The wagon was driven down the street to the cattle car where the last of the felons lay with a broken hip. Several townsmen lifted him without much concern for his injury and after the convict wagon gate was unlocked and opened, they tumbled the handcuffed man inside ignoring his screams of pain. When the gate was locked again the wagon driver snapped the reins and he and a guard with a shotgun began the long cold ride to Manchester as the prisoners in the cage behind them shivered from both the trauma of their brush with death and the cold. Catkin vowed to himself that he would return one day and wreak havoc and murder upon the townspeople. His hatred was especially intense for whoever had concocted the plan that had defeated them.

## Chapter 33

The Earth sped in its orbit about the sun and the season moved to the fair weather of spring. The warmer weather allowed greater progress at the Rocks on the construction of the mill house, additional log cabins and a start to the foundation of the mansion. Stones had been evacuated and earth dug out in order to run underground cast iron water pipes to all of the building sites. Wolfi had completed the blasting to excavate earth for the stone bridge abutments at Hartish Creek and the boys had accomplished the creosote soaking of a large number of logs that would be used in the construction of the bridge's structure. Olin and Stephan Horan had collaborated on the design of the abutments and their interface to the bridge supports and Horan's men were laying in the stone and mortar in accordance with their plans.

It was in May that Donald related to Olin that some sounds had awakened him in the middle of the night while he had been sleeping near one of the rock fires. They had been strange, haunting sounds and he wondered if they had something to do with the beast man Pan. Several of the other boys heard his question and gathered around to await Olin's reply.

"What did it sound like?" he asked.

"Something like "Whip poor will, whip poor will," answered Donald. "But it was in the middle of the night so even though I thought that it might be a bird, it seems like it could not be. Birds sleep at night, they go to roost."

Andre snorted an objection. "Owls don't."

"Well these are not owls," responded Donald.

Olin's face took on a serious expression. "It is the Devil Bird," he declared with emphasis.

"Arghhhhh!" from all of them.

"Your just trying to scare us the way Zygmunt and Paddy did," accused Donald.

"No. It is the truth. It is the "Goatsucker"," Olin assured them with complete seriousness.

"The Goatsucker? How can a bird be a goatsucker?" Andre demanded to know.

"Over centuries of time the goat herders have known of this bird," Olin said. "They believe that it drinks milk from their goat's udders during the dark of the night."

"A bird that drinks milk from goat's udders?" Donald was mystified and revolted by the image.

Arthur prayed, "Holy sweet Jehovah save us." And then he brightened. "But we don't have any goats," he said feeling some relief.

Olin looked at each of the boys in turn. "It is sometimes called the "Vampire Bird", also."

Their hands flew protectively to their throats.

Finally Andre caught on. "Cut the crap, Olin."

Olin smiled and set them at ease. "It is the birds named Whippoorwills that you hear calling to each other in the darkness. They feed upon nighttime flying insects, so yes, they do fly during darkness. They are small birds, smaller than the falcon, Wings. They nest on the ground. A very strange thing is that in cold weather they have been

known to hibernate. Go into a deep sleep, like a bear does."

The boys were relieved that there was not something evil lurking about in the night.

Olin reverted to a serious tone of voice and gave them a warning. "Sometimes young maidens lie awake at night as they intently listen for the first call of a Whippoorwill."

"Who cares?" from Andre.

"You do, that's who," declared Olin. "All of you do." They became apprehensive and doubtful simultaneously.

Olin continued, "The legend is that if a young maiden wishes upon the first call of a Whippoorwill, then her wish will come true. And if she wishes that you Andre, or you Wolfi, or you Arthur, might marry her, then you are doomed to do it."

Benjamin didn't believe it. Or didn't want to believe it. "She can't just wish like that and expect to get her wish. That is foolishness."

Olin queried them. "Have any of you ever wished upon a falling star?" They gulped. They all had. Many times.

"Well then, don't tell me that you don't believe in such wishes as every one of you does. And let me ask, do any of you know Jenaka Marzly?" They all knew her from class at school. And they all knew that she was uglier than the back end of a skunk.

"Well," said Olin, "I hear tell she is making some very hard wishes upon Whippoorwills and is calling out one of your names during the doing of it." He turned and walked away as they stood trying to guess which one of them was fated to fall victim to the girl's fervent desires.

At the end of the following week Olin at last left the employment of the railroad and now worked full time in the blacksmith shop at The Rocks making all of the metal fixtures required for the buildings and filling other orders from the townspeople and farmers. In addition Mr. Martinmon still had him fabricate the items needed for train repair as none of the other laborers had ever come to grips with the learning of forging.

The maple trees had been tapped and the sap sold to farmer Peter Conway as had been agreed at the time of sale of the mule. Olin was greatly relieved that the mule was not a "kicker" as very many were and accidents were common among people that failed to treat the animals with a great deal of caution.

It would be two more months before the Sweet Birch trees were trimmed of their branches but those sap buckets were already in place and Pharmacist Lewis eagerly awaited their contents. The Mulley saw blade had been coupled to the waterwheel and logs were being sawn into planks while the mill itself was being constructed around that operation. Mr. Macnock had procured the first of the association's lumber for the construction of his gourmet establishment with four dining rooms and a group of four luxury cottages. The carpenter Clive Johnson had taken the building contract and had employed the boys of The Rocks to a considerable extent. Olin viewed that in a very good light because all of them were learning carpentry.

Macnock had been well aware that gourmet establishments existed in Boston and other large towns and that there would have to be enticements to draw clients further north. He had once conversed with Olin, advising him "There is something that

the extremely wealthy will pay extraordinary amounts of money to obtain."

Curious as to what that might be Olin had remarked, "Many things come to my mind but I do not know what would be the most precious to them."

"They most desire anything that is only available to the very privileged few. The rarer it is, the greater their desire." Macnock would offer the Bostonians escargot. The French Andre would raise his escargot in snail breeding buildings. They would be nourished on a special diet to assure a uniquely flavored snail dish that could not be obtained anywhere else in the country. Arthur had asked Andre how in the world he would keep the snails from simply gliding away to the forests and the answer had been that copper strips would be laid on the ground around the inside perimeter of the building. Snails taste with the "foot" that they glide upon and as they detest the taste of copper metal they would not cross the strips to escape.

It is not usual that a gourmet considers Black Bear to be a delicacy but Judy's recipes would include that as well as many other dishes that were simply not available fresh in large cities. Among these would be moose, cottontail rabbit, dove, squirrel, trout, wild turkey, white tail deer, pheasant and quail. The clientele would come to chuckle that Beauty was cooking the Beasts and relish the thought of it. All of these dishes would be prepared in a truly distinctive manner that would contrast the forested origins of the animals with the elegant sauces and seasonings of haute cuisine. The wild animals that were to be prepared for the dinner table were hunted by Sheriff Tramell and Mr. Scalodi. Whenever possible Macnock's patrons were treated to the sight of these men upon their horses emerging from the forest as they brought out the animals that the people would feast upon. The seeing of it seemed to vastly increase their appetites.

Farmer Conway provided select cuts of beef, veal and lamb from his herds. But of particular interest to Macnock was the provision for Ris de Veau, which is a meal made using the thymus gland, or sweetbread, of a calf. It is usual that a gourmet would want to consume this dish on the same day, or better yet within hours of the time that the calf is slaughtered as the gland's flavor swiftly diminishes. The necessary Foie Gras would be from the farmer's geese.

The fact that the richest top one percent of the inhabitants of Boston possessed 42% of the wealth was not lost upon Mr. Macnock and he would accept only clients in that wealth stratum as his patrons. The bank's president Mr. Perkins had revealed the existence of Macnock's gourmet establishment to the extremely well-to-do of Boston during his monthly business trips to that town and they were very soon vying to submit their applications. The elite prefer to rub elbows only with other elite and the knowledge that the clientele would be limited to the very upper level of society enticed them. The word spread among the privileged class, well beyond Boston, and very soon the number of applicants to dine at his tables and to occupy the cottages for an evening was so great that the waiting time was six and one half months.

The rich tip well and Gracie and April were stunned by the amount of money that they quickly earned. At the end of the second month the girls pooled their funds and had enough to allow Gracie to take the train to Boston and bribe guards at the jail to simply let her grandmother and her friend walk away from it. After all, what were two old ladies

more or less to the prison guards? Realizing where the Golden Goose was laying golden eggs, Gracie then hurried back to New Hampshire.

An obvious investment for Trinkem, Hiram, Herman, Martinmon and Olin had been to procure a plush new railroad passenger car for the transport of the wealthy elite guests. It was painted a light green with yellow trim and artfully emblazoned upon its sides in letters of gold leaf were the words "Reserved exclusively for the guests of Henry Macnock".

Dressed in waiter's suits the boys took turns in twos to staff the car. They catered to Macnock's clients from a fully stocked liquor bar as they served up chilled hors d'oeuvres in the summer and warm appetizers in the winter. The patrons were quite generous with gratuities and the boys were earning a considerable income.

Things were going well. Perhaps too well.



## Chapter 34

It was Wednesday July 1, 1857, and the Independence Day celebration at the town greens was fast approaching. In preparation for the event Zygmunt had set up some chemistry equipment in his cabin as the boys looked on. Using metal tongs to hold a block of clear chemist's glass he heated it over the fiery coals of a brazier. When it glowed red-hot he inserted a long thin metal tube into the softened glass and used it to blow the molten mass into the shape that he desired. He repeatedly molded and reheated the glass as he worked it into the desired shape. The boys stood entranced by his methods and his results.

As he waited for one piece of the clear glass to slowly cool he talked to the boys about colored glass. "Can you guess what color would result if I mixed a little gold dust very well into a glob of clear molten glass?"

In unison the boys answered, "Gold."

"No," responded Zygmunt. "A deep red or cranberry color would result."

"That's crazy," exclaimed Arthur.

"No, you are if you do not accept what nature does," Zygmunt responded sternly. "Gold colored glass will not appear just because you believe that it should," Zygmunt said by way of educational chastisement. "What color would result if I put in some copper?" he asked next. Nobody was willing to hazard a guess.

He told them. "Actually, depending upon the amount and purity of the copper, we could get light blue, green or ruby red. Glassmakers mix elements into molten glass to color it in a certain manner like Mary cooking a recipe with spices in order to obtain a certain flavor. Over the centuries they have discovered empirically how to obtain the various colors. For example the use of tin will result in white "milk" glass that you can't see through."

"What was that word you used?" Andre asked.

"Empirically?" Zygmunt guessed. "It means by trial and error."

He continued his work and finally completed a complicated hollow glass device, which incorporated two metal electrodes with short copper wires attached to them. Into an opening on the side he poured in a mixture of water with a small amount of sulphuric acid. He then corked the hole.

He reached for a small battery that had two wires attached. "I want you all to lean down very, very close to look at the ends of these wires." The boys pushed in for a better look and concentrated upon the ends of the wires, their heads lowered to better see the copper strands and not quite knowing what to expect. Zygmunt snapped the wire ends together, which generated a spark and a snapping noise due to the electric current.

The startled boys jumped backwards and stumbled over each other as they tried to put some distance between themselves and something that they had never seen or heard before.

"What the hell was that?" Andre demanded to know.

"It is captured lightning bolts," the man answered with counterfeit seriousness. "Do you remember how Ben Franklin flew a kite with a key and got a spark off of it?"

They had all heard of the famous 1748 experiment and nodded affirmatively.

"Well you might remember that there was a thunderstorm last week. I set this battery outside in the storm and a lightening bolt struck it and I captured all of it. Now I can let it out, one little lightening bolt at a time," Zygmunt lied.

The boys were expressing amazement at his ability to do such a thing. He had their close attention so he set the bait into the trap. "Somebody else did this years ago. Did you ever hear of Mary Wollstonecraft Shelly?"

The boys seemed to think that the name sounded familiar.

"Have you ever heard of Frankenstein?"

They paled. "The monster?" asked Arthur with a twinge of fright.

"Yes, the monster," intoned Zygmunt in a chilling voice. "Mary Shelly wrote of the evil experiments of Dr, Frankenstein in 1818. The monster was made of the parts of dead people. Each different part from a different person. An arm from this one, a kidney from that one, an eye from another, and so on. He had a murderous assistant, Igor, who went to graveyards to dig up the recently dead bodies for the insane doctor so that they could be cut up into the desired pieces."

The light of day had faded as Zygmunt had told them about colored glass and as he now started the horror story of the Frankenstein monster full darkness had arrived. He had let the coals in the brazier burn low and the light in the room had become quite dim.

"After the insane doctor had sewn all the body pieces together, do you know how he then made the monster come to life?" he asked in a hushed voice.

Donald thought he knew. "By lightening. I think that I have heard of it."

"Yes, by lightening," Zyg exclaimed in a rising voice. "Just like the lightening I have here!" He scrapped the wires together again and the sparks appeared all the brighter and more ominous in the darkened room. The boys cringed back towards the far wall.

"Please don't do that anymore," pleaded Arthur.

"I think that I saw some thing out in the woods the night of the thunder storm," Zygmunt said in a now lowered voice. "When the lightening flashed I could see a tall man standing among the trees. Not far from your cabin. He had the appearance of someone evil." The boys' imaginations were running rampant with visions of a monster in the nearby woods.

Zygmunt went on with the horror story. "The rain was pouring down upon him but he did not seem to care. He just stood there staring at me with his ugly face. I think he wanted the lightening that I had captured in the battery. He wants lightening the way we want water on a hot summer day when our mouths are as dry as dust. He had to have it! Then he took a step towards me!"

"Jeeeee!" from a frightened Andre. "What did you do?"

"What do you think? I knew that the Frankenstein monster was afraid of fire so I rushed in here and got a piece of kindling that was burning only at one end from the fire place. I rushed back outside, hoping with all my heart that he had not gone to your cabin in the meantime!"

The boys cowered against the wall, the whites of their wide-open eyes shown like

hard boiled eggs floating in the eerie darkness of the room. The thought of the Frankenstein monster lurking about their cabin terrified them.

Zygmunt continued in an excited voice. "Through the darkness I saw that he was coming towards me so I held the flaming wood up and pushed it towards his face. It made him furious and he made angry sounds like "Areeegh, areeegh!" And I knew it was him because the monster can't talk."

Zygmunt suddenly went silent and cocked his head and rolled his eyes upward slightly as if listening for something. The man from Poland then gave a shudder as he continued to stare wide eyed at the cabin door. "I think that the monster must have seen or heard the little lightening bolts from the battery here on the table and he wants some," he said in a much quieter voice, so as not to be heard by anyone outside. "He needs some of this electricity if he is to keep his tremendous strength, which allows him to kill people so easily. I think that he might be at just the other side of the door!"

As Zygmunt had first begun to speak of Frankenstein, the boys had believed that he was starting another of his foolish scary stories. But as he described his battle with the monster their minds had slinked away from reality and entered fantasy without their conscious awareness. They now believed that there was a very good chance that the monster actually stood just on the other side of the door.

Zygmunt picked up the battery and walked over to Andre. "You are the oldest and must protect the others." He thrust the battery into the boy's reluctant hands. "Here, take the battery, and no matter if the monster rips me all to bloody pieces you must keep it away from him. If he gets a hold of it he will become strong enough to rip you all to pieces."

He turned to look at the others as he spoke. "You boys listen to me carefully. If the monster gets in he will try to grab Andre because of his having the battery and that will be your chance to get away." Andre had paled but his spirits picked up somewhat as the other boys ignored Zyg's advice and moved protectively towards him.

The man was full of admiration for all of them because their impulse had been to come to the aid of their friends, whose knees were visibly shaking. Turning, Zyg stepped back towards the door. The boys stared in unblinking terror as the man placed his hand upon the latch. He looked back over his shoulder at them. "I have to stop him from getting to you. He is too big for you to fight. If I don't survive the night then please tell Mary that I love her."

He threw open the door. Standing there was the large, ugly and fearsome monster! He wore no shirt and his face, chest, arms and hands had the appearance of dead and decaying flesh. It was a nightmarish black and gray pallor, as if it had been stitched together from the skin of long deceased corpses. The monster had his arms stretched straight out in front of him, within inches of Zygmunt's throat. Before the man could back away the monster grabbed him around his gullet as grunted viscously, "Areeegh!"

The boys were screaming and yelling incoherently as they stood quivering in horror at the gruesome sight.

"He's got me! He's got me!" Zygmunt gasped through the chokehold.

And then only gurgling sounds were heard as he started to slump downward to

his knees. The boys could see the blackish, death like face of the monster, with the whites of his eyes and teeth in glaring contrast to the darkness of his horridly colored flesh.

All of them instinctively drew their skinning knives from the scabbards, and these steel blades flashed in the remaining glow of the brazier as the boys braced themselves to launch an attack against the monster to save Zygmunt.

The monster looked towards them and seeing the knives released Zygmunt. Backing out of the doorway the monster cautioned them. "Hey, be careful with those things. You could hurt a guy." Paddy then said, "Hey, it is only me with wood ash all over me."

Zygmunt stood up and he was laughing. "You are a bunch of blockheads. We can get you with Pan flutes, Goatsuckers and now lightening at the end of a wire and the Frankenstein monster."

The boys realized that once again they had slowly but surely fallen into the trap of Zygmunt's practical jokes. But they were not mad. They were laughing with Paddy and Zygmunt as their heartbeats slowly returned to normal and the tingling of the goose bumps subsided. The two men had brought excitement and entertainment into their hardworking lives and they loved them for it. They all now had quite a scary story that they would enjoy telling to their classmates, especially to the girls.

Zygmunt lit the oil lamp and commended them. "You are a good group of human beings. You were willing to fight the monster to save me. I am proud to be here at The Rocks with you. But enough of that, let us complete the work we started here."

He used the electrical batteries to accomplish the hydrolysis of water into its two component gases, hydrogen and oxygen. This was performed simply enough by using the battery to pass a small electrical current through the water which contained a moderate amount of sulphuric acid and which had two electrodes sunk into the mixture. Zygmunt said instructively, "Hydrogen gas bubbles will evolve at the metal negative electrode and oxygen gas bubbles will evolve at the positive electrode. The gases will be easily captured separately under glass domes. Sir William Grove developed this method in 1839."

Wolfi had a technical interest in the project. "How do you know which battery lead to connect to which place?"

"Well, in 1750 Ben Franklin sat and pondered which battery lead should be called positive and which negative," stated Zyg. "He gave it a great lot of thought."

"And that is how you know?" Wolfi asked.

"Franklin had a fifty-fifty chance of being right because he really didn't know for sure."

"And?" asked Wolfi.

"And he got it wrong," answered Zyg. "We know that Franklin was a great man with a great mind, and it only proves that when you have a fifty-fifty chance, you have no chance at all. He should not have guessed." Zygmunt used crude gas pumps of his own making to transfer the gases from beneath the glass domes to an empty, clean and well-sealed dairy milk can. That allowed him to compress the gases together for later slow release through a nozzle controlled by a petcock that he had installed on the can.

Zygmunt continued the explanation of his work. "Even though water is composed of two gases, once they have been separated by electrolysis they will not recombine easily again. If they did so then we would have rain forever from our atmosphere. That sounds strange but it is true. So inside the can I have a mixture of the two gases hydrogen and oxygen, dry as can be.

Now, if some energy is added, perhaps by an electrical spark or fire, then they will reunite into molecules of the liquid. But when they do so they will do it explosively, with a bang." The boys had stared at him blankly.

He shook his head in a manner that indicated that the explanation of the experiment had ended. "Never mind for now. I will show you on the fourth of July."

On Friday July 4, 1857, the celebrants mobbed the town greens, many from as far away as Concord, New Hampshire. The news of the upcoming festivities had spread and the citizens of many outlying towns had been willing to travel long distances over rough roads to satisfy their yearning for entertainment. They happily anticipated the food, drink, games, music and dancing as well as the excitement of the firing of the cannons. Many of the visitors would stay for the launching of the skyrockets at dusk, and because of the late hour, sleep in their wagons or upon the ground before returning home in the sunshine of the next day.

Zygmunt had set up his milk can full of hydrogen and oxygen gases on the bed of the cannon wagon and Benjamin and Donald walked among the spectators to inform them that the man would be doing something entertaining about an hour later and that they should gather there then. As the time of the demonstration approached a crowd formed and Zygmunt made an announcement to them. "I have here a can of gas and I am going to blow soap bubbles with it. As the soap bubbles float away Benjamin and Donald are going to light them with their torches."

The onlookers thought it quite odd that anyone would for a moment think of burning soap bubbles. And even if they did what could possibly result except the annoying odor of heated soap? The boys each held up long sticks with pieces of oil soaked cloth tied about their ends. Arthur struck a match and they lowered their torches to allow them to be lit.

Zygmunt then held up a small loop of wire for the audience to see before he swished it into a dish of soapy water. When he pursed his lips and blew air through the wire loop soap bubbles formed and drifted away on the light breeze. When the boys moved about and burned them with their torches there was no result except for the odor of scorched soap.

The onlookers were beginning to believe that the whole thing was some sort of poor joke when Zygmunt made a further announcement. "As you can see, when ordinary soap bubbles are burnt absolutely nothing happens except a stink. However, I have in the milk can that you see here a magical gas and I am now going to blow some more soap bubbles with it."

He swished the wire loop into the soap dish once again and then held it in front of the nozzle of his can of gas. As he opened the petcock slightly the gas escaped and formed soap bubbles, which once again drifted away on the breeze. When Benjamin set his torch to one of them there was an explosion as loud as a firecracker. The crowd was

so surprised by the noise that they surged backwards and away in fright as Benjamin and Donald continued to detonate more of the bubbles that Zygmunt was forming. There was a succession of loud, banging, smokeless explosions and as the onlookers regained their composure they moved forward again to all the better experience the noise and excitement of the moment.

Zygmunt knew that when the hydrogen and oxygen gases in the soap bubbles began to recombine as a result of the flame of the torch, a great and sudden amount of heat was released. There was so much heat that the two gases actually became hot steam and it was this rapidly expanding vapor that caused the loud retort.

The crowd was enthralled by the exploding bubbles and after Zygmunt had exhausted all the gas in the can and the last of the bubbles had been exploded they broke into an extended round of applause for him and the boys. This was something that they could write about in letters to distant relatives. What other town had exploding soap bubbles to boast about?

Olin and Wolfi stood idly talking some distance away from the wagon. Gracie and April approached them while smiling and laughing.

"What's so funny?" asked Olin as they walked up.

"Don't stare at him, but do you see the thin tall man in a blue coat?" Gracie asked without pointing. "He has black hair, is about thirty years old and walks with a slight limp."

Nonchalantly casting their gaze over the milling crowd Olin and Wolfi finally located the man to whom Gracie was making reference. "Yes," they both responded.

"He is a pickpocket," Gracie smilingly informed them, "and his "pass off" is the older man with graying hair, eyeglasses and a black coat that he is glowering at and talking to intensely under his breath."

Olin and Wolfi nodded slightly to indicate that they had spotted the other man. They wondered why the girls were not encouraging them to capture the two thieves.

April suppressed a laugh. "Blue coat has picked the pockets of Mayor Hasting, Doctor Herman and Mr. Trinkem."

Impulsively Olin and Wolfi started in the direction of the thieves to apprehend them and hold them for the sheriff.

Gracie grabbed Olin's arm and informed him in a low voice, "Leave them alone for now, they don't have any stolen goods upon them."

The statement confused Olin. "You just said that they had robbed three men."

"They did but then we robbed them back," Gracie laughed. "Blue coat is saying that he had slipped three wallets into black coat's right hand coat pocket and black coat is saying that there is nothing in his pocket, which is what they are arguing about. Just as soon as he slipped them in each time, we slipped them out. And then we "putpocketed" the men that they had taken the wallets from. Your friends have no idea that their money has been both taken and returned."

Olin and Wolfi were smiling broadly at the girls in admiration of their accomplishments.

"Do you want us to do something or are you going to spend the day driving them crazy?" asked Wolfi

"Go find the sheriff and bring him here," Gracie replied. "We will go back into the crowd and give you a sign when blue coat robs someone else. The sheriff should then grab black coat with the stolen goods while you two grab blue coat." The girls moved off as the boys scanned the gathering for the sheriff and upon seeing him they pushed through the crowd to his side.

"Good day Sheriff Tramell. Do you have a hankering to make a public arrest?" Olin asked in a jocular tone of voice.

The sheriff looked at him for several moments as he tried to reconcile the boy's levity with the serious subject of arrest. "What do you have in mind?"

"There are two pickpockets in the crowd and Gracie has detected them. One is wearing a blue coat and the other a black one. I recommend that when she gives us a signal that you move forward and in a loud and authoritative voice, perhaps with your Colt Navy drawn, yell "Stop thief!" and then make a big display of bringing the man to justice.

At the same time Wolfi and me will grab hold of the man's accomplice, who actually will have the stolen goods upon him, and badger him about also calling out "Thief! Pickpocket!" The reason that I recommend that we do all of this in a boisterous manner is so that the citizens will remember it for a very long time and thus be on their guard for pickpockets when they are in crowds in the future. Also, it should be a fine bit of entertainment for them and make today's celebration all the more memorable."

"Very well Olin, lead the way." The sheriff slightly resettled his gun belt upon his hips in preparation. They walked slowly through the crowd until they spied Gracie and April who saw them at the same time. They stopped and waited for Gracie's signal while they also kept blue and black coat in view. Blue coat passed close to Mr. Scalodi and a moment later he passed by Black Coat.

"Stop him!" Gracie yelled.

The sheriff drew his Colt Navy from its holster, held it pointed upwards, and yelled in a loud voice "Stop pickpocket!" And then he fired the gun, as he was quite sure that would add to the excitement of the moment for the sake of his fellow townspeople. Instinctively everyone ducked downward as the pistol roared and the concussion of it was felt in the surrounding crowd.

Blue coat had turned towards the sheriff at the moment that he had heard the command "Stop pickpocket!" and knew that he was caught. When the sheriff fired the pistol the thief had immediately sunk to his knees with his palms outward towards the sheriff as he cried out "Don't shoot! Oh dear God, please don't shoot!"

Black coat had frozen in place and Olin and Wolfi moved to grab him with cries of "There's a second thief here! We have another pickpocket!"

Brown Coat who had previously been undetected took off running towards the east side of the greens, his legs churning wildly and his arms pumping in his frenzied attempt to out distance the sheriff's next pistol shot. His pass off was Green Coat the fourth pickpocket, and he tried to slip further into the crowd of hunched over people but Doctor Herman sensed his guilty movement and grabbing him by the collar threw him to the ground and then straddled him.

"Everybody stay down," commanded the sheriff in a loud voice. "I am going to

shoot that running chicken right between his wings if he does not stop!"

Upon hearing the man's intention Brown Coat slid to a halt and thrust his hands sharply up into the air, as he sincerely believed that the sheriff would carry out his threat. Several citizens glanced in the sheriff's direction and were clearly disappointed to observe that he had elevated the barrel of the Colt Navy skyward again and was not actually going to fire at the surrendering thief. Seeking alternative sport they rushed over to restrain Brown Coat and got in a few punches to the man's face as a consolation prize before the sheriff yelled at them to stop.



## Chapter 35

Jarad Hortmuller had also hunkered down when the sheriff's pistol had roared and he had then easily seen Abraham Donworth accost black coat. The murderer was immensely gratified that he had finally found the boy that had hammered cold iron manacles onto his wrists and ankles. Hortmuller possessed an inverted psychology and only experienced a sense of accomplishment when he satisfied his own greed and wanton desires, or when he had brought about the death of anyone that had ever insulted, humiliated or harmed him. And with each experience of wreaking vengeance his thirst for more vengeance grew.

He did not know, and he would not care, that experiments with mammals showed that a formerly non-aggressive animal could be trained to be viciously aggressive if conditions were arranged so that the animal was consistently victorious in fights with weaker animals. Thus with each victory over his enemies, Hortmuller became yet more vicious and dangerous to the next perceived adversary. So even though Olin had merely performed a paid service for the town by installing the manacles, that act had evoked a murderous fury within Hortmuller. His wrath and hate were so intense that he was willing to risk his own life by stalking Olin in a crowd of people that included a capable sheriff that might capture him for the hangman, or kill him outright in the attempt.

The murderer had beneath his coat a long sharp dirk in a leather scabbard slung under his left arm. And now he believed that the time was nearing when he would with abundant satisfaction use the pointed straight-bladed dagger that he had so carefully honed to exquisite sharpness during many brooding evenings. He relished the thought of simply slipping up behind Olin in the midst of the crowd, quickly placing the point of the dirk at the base of his skull and then with one quick and unnoticed hand motion, plunge the stiletto blade up into his brain. Death would be instantaneous and absolutely soundless. He would quickly retract the blade as he turned away and allowed the dead boy to slump to the ground with only minute bleeding.

The crowd would assume the lad had fainted in the heat of the summer day and by the time they realized that he was dead Hortmuller would be out of the crowd and into the nearby woods. All he had to do now was wait until the pickpockets were rounded up and escorted to jail as then the crowd's heightened sense of attention would relax and return to enjoyment of the holiday.

There were no lack of volunteers to hustle the four pickpockets to incarceration and a group of men moved off with the now bloodied thieves. The sheriff had attempted to restrain the jubilant men as they beat their captives but their sense of justice and duty had been very strong.

Olin approached Gracie. "Did you know that there were four pickpockets?"

"Yes, but the last two arrived after we had talked. I was going to point them out when the sheriff went after Blue Coat. As it turned out they called full attention to themselves and saved me the trouble."

"Do you think that there are anymore of them?"

"No. But if there were they are long gone now so I think that the crowd is safe."

Olin looked at her fondly. "I hear that you got your grandmother out of the Boston jail."

"Yes, but I suspect that I might have to do it again a time or two. Even though I offered to send her money enough so that she did not have to lift wallets anymore I think she will go on with it because she enjoys doing it. In my case I do not want to lose the good situation that I have with Mr. Macnock so I will stay on the straight and narrow."

Olin smiled at her as he started to turn away. "Enjoy the day. I am going to see if Wolfi is ready to fire off the cannon." As Olin started moving through the crowd in the direction of the cannon wagon Hortmuller was fifteen steps behind him and moving up quickly.

Judy had watched Olin talking to Gracie and even though she knew that there was absolutely no reason to be jealous she was relieved to see them go off in different directions. As she started to turn away she froze in stark terror. Her throat constricted and she could not find her voice to scream out a warning to Olin. They had spent many hours looking over Sheriff Trammel's wanted poster for Jarad Hortmuller because they knew that he was the greatest of all dangers to their dreams of a happy life together and they wanted to be able to recognize him instantly. In spite of the fact that the man she was staring at had shaved off his thick black beard and moustache she knew him to be the vicious murderer. She instinctively moved towards Hortmuller as she felt compelled to somehow stop his progress towards Olin no matter what the cost to her might be.

She was hurriedly approaching the man from his left side and because of his blind eye he did not notice her advance. The felon was startled to come face to face with a pretty blue-eyed brunette with a distressed and furious expression, who began flailing upon his chest as she breathlessly struggled to bring forth a scream. He roughly grabbed her by the throat to stifle her before she could make any significant noise, pushing and pulling her stumbling along as he continued to stalk after Olin. He was an extremely strong man and he easily held her in his one handed grasp as her feet dragged along the ground.

Several people were beginning to notice that a struggle was taking place. Hortmuller did not understand the girl's actions as he had never seen her in his life but he was so fiercely intent upon killing Olin that he was now going to take the risk of being observed in the act as a result of the thrashing female drawing attention to him. He rapidly closed the distance to Olin as Judy's face contorted in agony due to his throttling grasp that had closed her windpipe. She continued to flail her fists upon his chest even as she thought that she was going to lose consciousness from lack of breath.

Olin sensed some sort of commotion behind him and started to turn. Out of the corner of his eye he saw a man's enraged expression and a second later he realized that it was Hortmuller. He was horrified to observe Judy's pale face due to the murderer's chokehold and he turned to fully confront the felon and to assist her.

As Hortmuller came upon Olin he thrust Judy roughly aside and reached inside his coat for the ebony handle of his dirk that had already been soaked by other men's blood.

For what ever reason, in that moment Olin remembered the words of

Thucydides: "But the bravest are surely those who have the clearest vision of what is before them, glory and danger alike, and yet notwithstanding go out to meet it." He knew that innocent things that he had done for the good of humanity might now cause his death but he regretted nothing. He threw himself at the much larger Hortmuller in an attempt to wrestle the man to the ground.

The felon's hand fished beneath his coat for the handle of his sharp long dirk. It wasn't there. The scabbard was empty.

Olin had lunged at the man with his right arm outstretched, elbow locked and the palm forward. He instinctively knew that the man would be less likely to be able to parry a thrust than the arcing swing of a fist. His palm impacted Hortmuller's nose and broke it. As blood spurted from Hortmuller's nostrils spectators began to scream and yell now realizing that a serious conflict was in progress.

Hortmuller violently grabbed Olin's neck in his strong hands with the intent to snap it quickly, as strangulation would take at least three or four minutes and someone might come to his assistance in that amount of time.

Olin's face instantly swelled and puffed out as a result of the constrictive force of the man's hands that caused a sharp rise in the blood pressure of the veins and arteries of his head. He began to lose consciousness and thought sadly that during his last glimpse of Judy in this life she had been in horrible pain.

Judy rose to her feet gasping for air as she held Hortmuller's dirk in her hand. She had felt it with her first blows upon the man's chest and she had filched it, in the manner that Gracie had taught her, when the man was dragging her along towards Olin. She was shocked at the appearance of Olin's agonized expression due to Hortmuller's stranglehold and believed that he was only seconds from death. She held the dirk point outward in front of her as she clasped the handle with both hands. She ran and then lunged at Hortmuller's back putting all of her body weight behind the thrust of the long sharp dirk.

The blade entered and severed Hortmuller's spinal column just above the waist. He had the sensation that the ground had opened up beneath him, as he felt no support from his legs and experienced the sensation of falling. He immediately slumped to the ground as his legs failed him and in his consternation and alarm for his own welfare, he lost his grip upon Olin's throat.

Judy saw that Olin had also fallen to the ground and failed to move, as he appeared to be at least unconscious. She ran to him, grabbed his arm and pulled him some feet away from the fallen murderer to prevent the man from further assaulting him. She knelt down and shook Olin. "Wake up! Wake up!" she cried out as the sheriff arrived at her side. He had deputized some citizens to take the pickpockets to jail and had remained at the greens just in case there were more thieves about.

Olin very slowly roused from his dark state and began to realize that he was still alive. "Where is he?" he gasped out in alarm as he struggled to rise in the belief that once again he must battle Hortmuller.

"He has been stabbed and it seems that he can't move," Judy assured him. "Are you alright?"

"My head hurts. It felt as if it would burst open. But what of you? I thought he had

killed you." He noticed the bloody face of the fallen murderer glowering in hatred at him. "Why is he upon the ground? Did I hit him so hard?" He had not yet comprehended that the man had been impaled by his own dirk.

Judy's relief and happiness was increasing as she realized that Olin was not seriously injured. "I stabbed him. With his knife."

Hortmuller heard her words and with inflamed malice swore to himself that he would kill the both of them.

Olin struggled to his feet and then looked over at the scowling Hortmuller who lay crumpled with several angry men keeping guard over him. He realized that the murderer was no longer a threat. "You looked better with the beard on your Wanted Poster," he informed him. He would never let the man know that he had been with Holnami when she struck him with the sock full of birdshot and blinded his left eye. Even crippled murderers could be dangerous and he had no wish to increase the man's hatred any further or to give him any information.

He turned away from the man and started to walk across the greens with Judy, joyously happy at being alive and in love. The Rocks was his and it was becoming a very successful endeavor. He was helping the town to prosper and he had saved orphans from hunger, disease and possibly a life of crime. The boys were well and had grand futures ahead of them. Someday they would all have families at The Rocks and it would bustle with the life and activity of their next generations. Judy and he had just overpowered their worst enemy and they had not suffered serious injury while doing it. What more could a young orphan boy hope for or wish to accomplish at this point in his life?

The men standing guard over Hortmuller, as he sat seemingly helpless upon the ground, thought nothing of the fact that the man reached down along his crippled legs, as if to try to feel them. The murderer's fingers slipped into his right boot top and curled around the pistol grip of the two shot .25 caliber Derringer pistol that was hidden there. He cocked the hammer back as he pulled the gun out of the boot and started to raise it towards Olin and Judy.

The average reaction time of a human being to even perceive a crisis situation is just something less than a second. In that time the guards did nothing more than realize that a gun had appeared in Hortmuller's hand. It would be another second or two before their arm and leg muscles tensed and they could even barely begin to move to disarm the man. In three seconds time, any person used to firing a gun could get off at least two shots.

Because of Sheriff Tramell's close observation of Hortmuller he had felt deep suspicion when he saw the felon's hand movement towards his boot, and due to the look upon the man's face he read both the intention and the danger. As a result, he had been reacting about two seconds sooner than the townsmen. His right hand was coming around towards the handle of his Colt Navy pistol but once again he had the sensation of being under water, with the fluid retarding his movements to draw his weapon.

Hortmuller had his gun up, fully cocked and was aiming it at Olin's retreating figure. He knew that a .25 slug in the back might not kill him so he focused his aim upon Olin's straw colored head of hair.

The lad had turned his face towards Judy to kiss her fondly upon her cheek and she nestled her head against his, half blocking it from Hortmuller's view. She was buoyantly happy that she had been able to save Olin's life and she was full of confidence that now they could go on to live their futures in serenity.

Tramell's Colt Navy was sliding out of its holster as simultaneously its hammer was being cocked. But he knew that he would be too late to stop Hortmuller from pulling the trigger and firing the first shot. He was in a rage to think that a vicious murderer without a conscience was about to kill either Olin or Judy; people that had always strived to do only good.

The murderer's derringer fired and the bullet sped on its way. The heads of Olin and Judy were close together and as fate would have it hers was in the more vulnerable position.

When a person is shot from some distance away they first feel the bullet's impact, if they are not instantly killed, and they later hear the muzzle blast. That was true in this instance. The .25 slug nicked Olin's right ear and took a piece of it away. He thought that a bee had stung him. Then he realized that a gun had been fired and he instinctively pulled Judy downward into a hunkering crouch to reduce their target size, putting himself between her and the murderer.

Hortmuller was cocking the derringer for the second shot as Tramell's Colt Navy aligned with the man's right temple. The limbs of the men guarding the felon had barely moved to restrain him since they had first realized he had a gun, but the expressions upon their faces revealed the sense of calamity that they were experiencing as it became apparent to them that they had failed miserably in their responsibilities to guard the murderer.

The Colt roared and bucked in the sheriff's hand. Emmett Lavin's left shin was violently shattered by the Colt .44 slug but he remained standing in a state of shock from the resounding muzzle blast of the gun.

Hortmuller's right hand clutching the derringer flopped downward. He then slowly slumped sideways with the left side of his head blown away.

The slug had passed through his cranium and struck Lavin's leg as he stood behind the felon. Other men immediately went to Lavin's assistance to staunch the blood and the doctor appeared from the crowd. Tramell was distraught about Lavin's injury but he knew that it had been an unfortunate act of fate. They all knew that. As he realized that Olin and Judy were not seriously wounded, he thanked God.

Olin was only bleeding slightly but when his ear healed he would always be able to see in a mirror that a part of his right ear was gone. It would serve as a constant reminder that dangers are ever present. Judy and he rose and turned away from the scene. Andre, Wolfi, Benjamin, Arthur, Donald, Zygmunt, Mary Eldor, Paddy, Gracie and April left the crowd and caught up to them as they all walked on towards The Rocks and into their destiny together.

Samantha Olsen stood watching their departing figures with deep envy and hate as thoughts of poison filled her mind. She had already learned of some plants that could provide toxic substances and these would be available for harvest in the near future. Her task now was to decide which of the people at The Rocks would be her first victim.

She found it difficult to select one, as she hated them all equally.

## Chapter 36

The month of August passed well at The Rocks. All of the boys had become proficient at their tasks and had a clear vision of what needed to be accomplished on any given day. Harvest was in progress at the local farms and also from the small gardens that had been planted at the Rocks.

Zygmunt and Mary were making plans for their marriage and Olin encouraged them to have the Reverend Kertabit perform the ceremony in his church. The reception could then be held at the town hall and the entire population would be invited. Everyone was looking forward to the union with happy anticipation.

Mary and Zygmunt sat at the table in his cabin on a fine August day as they reviewed the wedding plans. There were two married women in attendance as Mary was always sure to have a chaperone about when she visited The Rocks. It was imperative in her mind that modesty and decorum be practiced at all times, as after all there were only males living there, and six of them were young lads. On this day the other ladies with her were Mrs. Lorrent and Mrs. Conway. Olin was ever happy to have the matrons about as they instilled good habits into the boys, as well as performing the tasks of mending, washing and drying clothes, cooking, and other beneficial services.

In the presence of the other two women Zygmunt made a complaint to Mary. "You had Samantha Olsen out here the other day along with four other teenaged girls."

"Yes. It is best that the boys socialize with the young ladies under our supervision. Otherwise they might sneak off together for a rendezvous after school," she had replied.

"That is all well and good but I was referring only to Samantha."

All three women were well aware that Samantha had attempted to warn Arnold Catkin and his murderous horsemen and assumed that her questionable loyalties were the cause of his concern.

Mary chided him. "If we do not accept her into our good society, we will then drive her into bad company. She is just a young girl that suffered from great fear on the day of the attack. She needs forgiveness and benevolent guidance."

When Zygmunt sipped his coffee a wry expression came upon his face.

"Do you take that great of an affront with my comments?" asked Mary.

"No, that's not it."

"What's the matter then, Zyg," she asked.

"I'm not sure. The coffee tastes funny, I think. And lately my stomach has been sour."

"Well, I don't drink coffee," remarked Mary, "so even if I tasted it I could not tell you if it's one way or the other."

The other two women also did not drink coffee as it was very expensive and additionally it was rumored to be such a strong stimulant that females were known to become indiscreet after imbibing a mere cupful.

"Well, I think there is nothing seriously wrong," decided Zygmunt. "Let's get back to our wedding plans." All of the ladies were happy to oblige him.

Several days later Paddy and Arthur were drilling holes into a giant granite

boulder as Zygmunt provided supervision. A flaw line was visible in the rock so it was not difficult to determine where to position the drill holes. With the approach of September the weather had cooled somewhat and the work was not as hot and sweaty as it had been in the previous few months.

"How many of these holes do you think that we have drilled into rocks since we started doing it many months ago?" Arthur wondered idly.

"Enough to drill our way to China," Paddy supposed.

"What do you mean? What does China have to do with it?" Arthur wanted to know.

"They say that if you dig down through the earth that you will come out in China," Paddy informed him.

"That's not true."

"How do you know, Mr. Smarty Pants?" taunted Paddy.

"Because, you big Irish horse," exclaimed Arthur, "I checked a globe of the earth at school. We would come out in the Pacific Ocean west of Australia."

They both looked towards Zygmunt for confirmation of their beliefs.

"Arthur is correct. And that is good," he observed.

"Why is it good?" asked Paddy.

"Because it is easier to learn how to swim than it is to learn how to speak Chinese."

They all laughed as they continued with the work. A while later Paddy looked at Zygmunt with a worrisome glance. "Are you feeling alright?"

Zygmunt was startled by the question. "Why? What do you mean?"

"I don't know," Paddy said. "It just seems that your face has a sickly color."

"You're crazy. I feel fine. Arthur, how do I look?"

Arthur looked closely at Zygmunt's face and shrugged. "You look fine to me. I think Paddy is just playing with you because you said that he was wrong about the hole through the earth."

They completed the set of drill holes and then walked back to the cabin to tell Wolfi that he could fill them with powder and blast the rock apart when he had a mind too.

Zygmunt continued on walking in order to go to the blacksmith cabin to talk to Olin. As he entered he found Olin gulping water to re-hydrate himself because of his extensive perspiration as he worked at the hot forge. "I had better cut some additional windows in this shop in order to get a good cross breeze," Olin remarked.

"Let's step outside. It is too damn hot in here for me," Zygmunt said as he went back out the door. Olin did not need much convincing and quickly followed him outside.

"Do I look alright to you?" Zygmunt inquired as to his own appearance.

"No."

"No? What do you mean no?" asked the now concerned man.

"You look as ugly as sin. What else do you want to know?"

Zygmunt was somewhat relieved. "I meant do I look ill to you."

"No," answered Olin in all honesty. "Why do you ask?"

"Well, a few days ago I felt a little out of sorts. Now, just a while ago Paddy said I



looked ill. Also coffee tasted funny the other day. Is that a symptom of something?"

"Yes."

"What?" asked the man apprehensively.

"Bad coffee."

"I meant, was it a symptom of a disease?"

"There are some illnesses that cause such a thing as a change in tastes or a loss of taste. But if you want to know more than that, then go see Doctor Herman."

"The doctor! Do you think that I am that sick?"

"I don't know if you are sick or not as I am not the doctor. But," Olin's tone now became more serious, "perhaps you should go right away because if you happen to have a contagious illness it is best that we know about it as soon as possible." He instinctively took a step away from Zygmunt. Warm weather often caused the spread of cholera.

"Oh, sweet God," the man moaned dejectedly. "And my life was going so good, what with Mary and all."

Olin consoled him. "Maybe there is nothing wrong. Perhaps it is only something that you ate." Plucking up his courage, he stepped back towards the man and placed his hand upon his shoulder. "Just go and see the doctor. I am sure that if he does detect an illness that he will have a medicine for it."

Zygmunt turned and walked away in a despondent mood. He brooded all that night and decided that if he did not feel well in the morning then he would visit Doctor Herman.

Samantha Olsen had chosen *Atropa Belladonna* as her instrument of destruction as she adored the colloquial name of the plant, Deadly Nightshade. When she had seen a drawing of the plant in a book in the library it had occurred to her that some grew wild in the swampy woods near her home. It seemed heaven sent, a gift from God. The symptoms of the poison enchanted her, as they were not sudden, such as agonizing pain. Instead they were insidious and hard to diagnose. She had joyously and attentively read about them in the book. They included alteration of vision with illusions, disturbances of hearing, taste and smell, numbness of the face, confusion, giddiness and delirium. Later there would be constriction of the throat, vomiting, redness of the face and finally a coma from which there was no exit except by way of death. She had been absolutely delighted to come upon such an easily available and marvelous instrument of death. She thanked God for it.

But also she had felt alone and in need of an ally. She experienced the desire for the friendship of a person with strength and determination. Someone with the savage will to prevail over enemies regardless of any obstacles. She had decided to pay a visit to Arnold Catkin at the Manchester jail and found that he was eager to provide all sorts of helpful advice.

The rooster crowed at the next sunrise and everybody arose and walked to Zygmunt's cabin in the early light as Mary and the two women had returned to serve them their breakfast there. The investment in the chickens had been worthwhile, as the boys were ever hungry for fried eggs. They gathered about the table forking pancakes onto their plates along with the eggs as fast as the women could fry them in the griddle.

The very maple tree sap that they had harvested in the spring now came back to them as sweet syrup after farmer Conway had boiled it down.

While they ate Wolfi noticed that Zygmunt was only sipping apple cider as he had an apparent lack of appetite. "Aren't you hungry this morning, Zyg?"

"No, not very."

"You look worried."

"I am. A little."

"About what? And, you seem a little pale?"

"What? Do I look pale?" Zygmunt asked anxiously. He set the cider glass down on the table. "My stomach is in knots. Sometimes I feel faint. My throat seems tight."

Mary looked at him with a growing sense of concern. "Zyg, we'll get the mule and we'll ride it into town to see the doctor. We have to find out what is wrong with you. Boys, get away from him. It might be contagious." The room rapidly emptied. "Bring the mule here," she called after them.

Zygmunt finally admitted to himself that he felt awful and he sat down as he experienced his strength sapping away. He eyed the cider in the glass suspiciously as he thought that it had tasted strange. Then he thought that he had heard something. "What is that? Do you hear it?" he asked Mary anxiously.

Mary stopped to listen closely. "I don't hear anything."

"It has the sound of a little tinkling bell. Can't you hear it?" He was beginning to panic somewhat.

She listened again. "No, I don't hear anything. Why would there be a tinkling bell?"

"I don't know. I just hear it. Oh sweet God, is it the bells of heaven?"

"Zyg, calm down. Is it just that your ears are ringing? That happens to people. It is normal." Mary attempted to console him and quiet his fears.

Benjamin brought the mule to the door of the cabin and then hurried off to his chores. Mary and Zygmunt went outside and mounted the animal to ride it to the doctor's office.

Olin and Wolfi watched them as they rode away. "I'm sure that he will be fine," Olin said, as if the saying of it would make it so.

"I don't think that it is cholera or typhus," Wolfi remarked. "Otherwise some of us would be sick also. But it could be something wrong with his internal guts"

"Well, it is best that he is on his way to the doctor," Olin remarked

Wolfi was hesitant as he asked a question on a different subject. "Am I ugly, or do I smell bad?"

"What in the world are you going on about?"

"Well, when Mary brings some of the schoolgirls out here, they talk to all the other boys but not a word to me. I guess none of them likes me very much."

"April talks to you every time she is here. I notice it quite clearly," Olin reassured him. "She is forever near you any chance that she gets."

"And at school all the time also. But not any of the other girls," Wolfi said in a complaining voice.

Andre wandered over and inquired after Zygmunt's health. "Do you think that the

doctor will be able to cure Zyg?"

"I am certain of it." Olin said it, but he did not necessarily believe it. He was not sure what to believe. He decided to change the subject. "Wolfi thinks that the only girl that will talk to him is April."

"That's for sure," confirmed Andre.

"What do you mean?" asked Wolfi with interest. He wanted to know what it was about him that repulsed the other girls. "Why won't the others talk to me?"

Andre looked at Wolfi sourly. "You idiot. You don't know, do you?"

"Know what," asked Wolfi in apprehension of the answer.

"April has promised all of the other girls that if ever one of them talks to you, that she will cut their heart out with a big butcher knife, have Judy cook it in a fine sauce, and then feed it to one of those high class "gourmet" people at Macnock's restaurant," Andre informed him. "I think they say "she has you in her sights.""

Wolfi was not absolutely sure he wanted such an ardent admirer as April.

When Zygmunt and Mary arrived at Dr. Herman's office he welcomed them and asked which was to be examined.

"Me," moaned Zygmunt.

The doctor had him sit down and offered a chair to Mary, also.

"What are your symptoms?" the doctor asked as he placed a thermometer into his mouth and took a hold of his wrist to check the pulse.

Zygmunt talked around the glass tube. "My stomach is all churned up and sour. I feel weak and they say that I look pale.

"Hmmm, the beat is a little slow," the doctor said at the end of the pulse check.

"Slow? Will it get slower?" Zygmunt almost bit through the glass thermometer as his tension mounted.

"Do you have any pain in the joints?" asked the doctor.

"Yes. There is some, but I thought it was from climbing about the boulders in recent days."

The doctor removed the thermometer and upon reading it he narrowed his eyes somewhat in concern. "Any other symptoms?" he asked as he placed the thermometer carefully into alcohol.

Mary offered one. "His sense of taste has changed lately. He says that his coffee tastes bad."

"And the cider this morning also!" Zygmunt exclaimed.

The doctor's expression momentarily displayed grave concern but then he caught himself and smiled weakly. "Now, now. Let us not become overly concerned."

Zygmunt's eyes widened in worry. "Oh, sweet God! What does it mean? What disease do I have?"

"Open your mouth and say, Ahhhhh."

"Ahhhhhh."

The doctor examined his throat very extensively. Then he looked intently at his eyes, pulling at the eyelids to gain a better view. He palpated the sides of his throat.

"Do you feel any pain as I push here?"

"Yes, a little."

"Do you ever feel as if your throat is dry and constricted?"

"Yes, right now it is."

"Do you ever feel light headed or dizzy?"

"Yes, this morning as I drank cider. It tasted funny somehow."

"Anything else?"

"He heard tinkling bells," said Mary with concern.

"You have had delusions in hearing?" the doctor asked as he attempted to hide his foreboding.

"Doctor, what the hell does it all mean?" Zygmont pleaded to know.

"Listen to me Zygmont," the doctor instructed him. "I want you to go back to your cabin and lie down. I must review some of my medical books and then perhaps send a telegraph message to a colleague in Manchester for a second opinion."

"A second opinion? Why do you need a second opinion?" questioned Zygmont with dread in his voice.

"Please relax, it is not good to get overly agitated. It is just simply wise to get a second opinion. If I prescribe a treatment I must be sure that it is the correct one or I might do further harm to you."

"Further harm?" gasped Zygmont.

Mary wore a look of grave concern. She prayed under her breath.

She appeared so distraught that Zygmont attempted to console her. "There, there, dear Mary. Everything is going to be alright." He hoped that it would be so.

They rode the mule back to The Rocks in a mournful mood. Upon their arrival at the cabin Mary helped him to the bed and said that she would make him some nice sweet tea, as it was known to relax the nerves. When it was ready she brought it to him.

He sat up to take a sip and immediately spat it out. "It tastes very strange! Awful!"

Mary was in a fright. "Oh, poor Zygmont, what is happening to you? Are you passing away?" Tears welled up in her eyes.

He was very concerned for her as well as himself. "Get Olin," he told her.

She hurriedly left and returned a few minutes later with Olin. All of the others had followed them realizing that a crisis was brewing and now they gathered at the doorway.

"What is it, Zyg," asked Olin with abundant concern. "Are you feeling worse?" Then he gave a command over his shoulder to Benjamin. "Ride the mule to town and get the doctor to come right away. Tell him Zyg is much worse."

Olin pushed upon Zygmont's shoulder to get him to lie back against the pillow and attempted to make him more comfortable. "The doctor will be here right away," he assured him.

The others edged into the room, throwing caution to the wind in regard to the threat of contagion. Olin was gravely worried. He had always strived to keep The Rocks disease free so he suspected, as Wolfi had suggested, that the ailment lay with one of Zygmont's internal organs. He put an arm about Mary's shoulders to comfort her. No one spoke as they waited for the arrival of the physician.

About twenty minutes later Arthur yelled out encouragement from the doorway. "Here comes the doctor and Benjamin. They are almost here and are riding fast."

The doctor rode up, dismounted from his horse and entered the cabin with his

medical bag. He went directly to Zygmunt's side and patted his shoulder in a consoling manner. But his face wore an expression of deep worry.

"Do you know what it is doctor?" Zygmunt asked in a plaintive voice.

"Yes," said the doctor solemnly. "I have received a second opinion from Manchester."

Mary held Zygmunt's hand tightly as she lowered her head and sobbed, her body shuddering.

Everyone else crowded in to hear the diagnosis. But before that, the boys appeared to want to reassure and prepare the man for the worst.

"We forgive you, Zyg," said Benjamin in a sad voice.

"Huh? Forgive me for what?"

"We never really got mad at you for the tricks that you pulled on us. At least you taught us a lot of things about drilling, and chemistry and other stuff."

"Yes, that's right," agreed Wolfi. "Don't leave us thinking that we are mad about the time you scared us with the half man, half goat monster, Pan."

"Leave you?" Zygmunt's voice quivered.

"We are glad that you didn't die from getting shot by the eleven murders," added Arthur. "Even though you later scared us silly with the Frankenstein Monster. We forgive you. Don't leave us without knowing that we forgive you. Promise that you will wait in heaven for us."

"Leave you?" he said more softly and desperately this time. "Wait in Heaven?" He was beginning to resign himself to his fate. Zygmunt cast his eyes over the group of them. They were his friends and he would dearly miss them. He looked at Mary who was still sobbing with her head down. He looked at the doctor with a sense of finality. "Tell me doctor, which disease is it?" he asked bravely.

The doctor looked into Zygmunt's pallid face and told him. "It is hypochondria induced by psychological, repetitive suggestion."

Zygmunt was stunned. He was sure that he had misheard the doctor's words. "Doctor, what is it that you said?"

Olin was in a state of profound confusion. He believed that he must not have understood the doctor's diagnosis.

Mary lifted her head all the way up and tears were pouring down her cheeks as she sobbed with laughter. They were all laughing uproariously. Except for Zygmunt and Olin. The laughter rang out so loudly over The Rocks that the animals of the woods turned to listen inquisitively.

Zygmunt jumped out of bed and stood up. "Mary! How could you?"

"How could I?" She could barely talk through her laughter. "How could I?" she repeated. "How could you scare the wits out of young boys? Twice! At least I only scared the wits out of a grown man! And now you know how it feels to be fooled and frightened."

Zygmunt was beginning to put together the pieces of the cause of the bogus illness.

"The bad taste of the coffee?"

"I put some ashes into it."

"The cider?"

"I put a little salt in it."

"The tea."

"I put some alum into it."

"The tinkling bell?"

Benjamin opened his hand to reveal a little brass bell which he rung.

Olin stood speechless as he realized that all of the boys, along with Paddy, Mary and the doctor, had been party to a retaliatory joke upon Zygmunt. He assured the man. "Zyg, if I had known of their plan I would have stopped it."

"That is why we didn't tell you," stated Andre.

Zygmunt began to laugh. "I am going to live! And I must say that it was a wonderful scheme, better than mine ever were. I congratulate you all, my friends and loved ones." He began to move about the room and hug each in turn. In his mind he was attempting to devise a means to get even with them.

Amid the sounds of their laughter Olin stepped out doors and walked by himself further into The Rocks. The weather of the day was beautiful and as he meandered he saw a falcon floating effortlessly in the sky above him. A chipmunk bounded away at his approach and gray squirrels scurried along the branches of oak trees.

He reflected upon how it had all begun. At age nine he had been parentless and in fear of being sent to an orphanage. By sheer good fortune he had found refuge in a library that had given him access to numerous books, and those had revealed the world of nature and mankind to him.

The simple observation of the laws of nature had allowed him to earn enough income to first procure The Rocks, and to then to have it provide a living to them all. The townsmen had been entertained by his scientific demonstrations and had paid well for them. He smiled to himself because he had also deduced how to weigh the 760-pound forge anvil without placing it upon a scale and that would earn him yet more money from them.

The classics that he had read educated him in the ways of humankind and allowed him to converse ably with men many years older than himself. They had also enabled him to guide five orphans away from the horrors of poverty and crime. The hard work of the boys had provided them with warm shelter, nourishing food, health and education. He thought of the many things that had been accomplished and knew that they all could be proud. It had been no small feat to construct a waterwheel that would power a saw and gristmill and which would be the envy of grown men. Holnami had made her way to Montreal and had found her daughter. They had managed to overcome the evil intentions of despicable and violent men such as Hortmuller and Catkin, even though it seemed at times that it would be impossible.

They had become a family and he believed that in the near future the family would grow, if the young ladies of the town were allowed a say in the matter. In his mind he could see the mill building, the additional cabins, the wharf, the smokehouse and the mansion. He could hear the music of the instruments and see the dancing figures on the days of celebration. He could see Judy and himself among the boys and their future families as they all went onward with their lives.

He was standing in a grove of trees but as he lifted his face he could see the serenity of the blue sky above him. "Thank you," he said.

The end