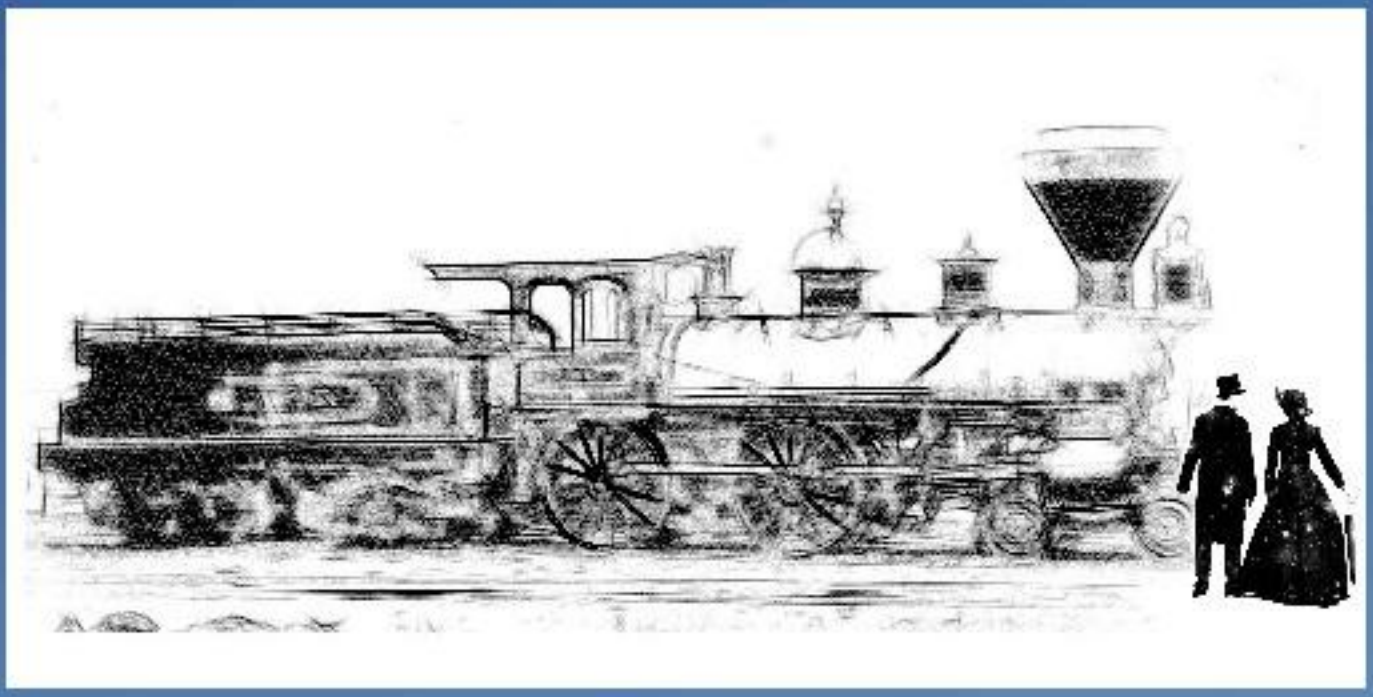
Love and Iron



John C. Nash

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Love and Iron

John C. Nash

nashjc @ ncf.ca

Ottawa, Canada

Love and Iron is a work of fiction. While certain historical persons appear, the main characters and their speech and actions are fictitious.

John Nash , Ottawa, 2017

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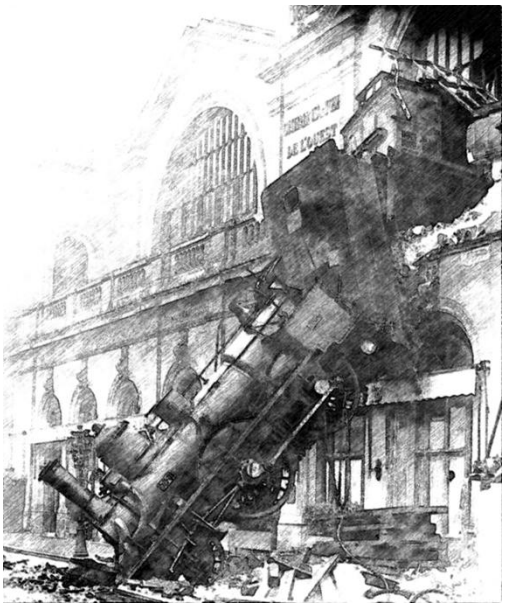
All Hallows Eve, 1895



The letter from the Chairman of the Board of the Great Northern Railway was exceedingly long for what was, essentially, a summons to a meeting in Edinburgh on November 1. On October 22, 1895, the combination of a train trying to make up lost time and a failure of the Westinghouse Air Brakes ended with the locomotive one hundred feet beyond the buffer and outside the front glazing of the Gare Montparnasse in Paris. A woman was killed by falling masonry. The locomotive was at a steep angle, with its front bogeys resting on the pavement while the tender was mostly inside the station building, as were the passenger carriages. There were rumours that there could have been tampering with the brakes. In the light of the ongoing competition between trains of the GNR and its North East Railway partner along the East Coast route and the London and North West Railway using the Western track, the company wanted to ensure the safety of its passengers and trains. And, of course, its profits.

I have done rather well as a consulting engineer for a variety of industrial clients, including the railways. In the light of the current competition, becoming known in the newspapers as the Race to the North, I had agreed to work only for the GNR/NER partnership. For this, my per diem fee was increased by 50%. I kept some work outside the railways. Indeed I had just been engaged by a company that exhibited at the Horseless Carriage Exhibition held in the Agricultural Show Grounds on October 15 here in Tunbridge Wells. As far as I know, this is the first exhibition of motor cars in Britain.

The summons, as I shall call it, arrived on Wednesday, October 30. To avoid alerting anyone that there were concerns of possible sabotage, the meeting would be in Edinburgh rather than London. Moreover, I was instructed that I should bring a companion so that my journey would appear to be a pleasure trip. I was to telegraph my consent as "Lunch at one acceptable" to a name and address I did not recognize.

After apprising Amelia of the letter – indeed I let her read it – I sent the telegram. The letter gave instructions about travel and accommodation with an address in London where tickets and, happily, an advance on expenses would be waiting. I put the letter away in my briefcase along with some papers I gathered relating to braking of trains and secured the lock. Not trusting that the advance would be generous, and content to indulge Amelia, I opened my strongbox and ensured my wallet and her reticule were comfortably supplied.

We informed Betty, our maid, that we would be going to Scotland for personal matters for a few days, planning to return on Tuesday night unless we telegraphed otherwise. She was to inform cook, our housekeeper Hilda, and our occasional yard man. I added that as long as the necessary house duties were complete and security maintained, they could arrange their own timetable. This news was gratefully – perhaps more than gratefully – received. Many people in my position might have more servants. I had grown up in comfortable but modest circumstances, as had Amelia. We were both imposters to the upper middle class.

In the event, we left our house in Calverley Park in Tunbridge Wells around 10 o'clock so we could enjoy the afternoon in London. The address for our ongoing tickets and the advance monies was near Charing Cross. We put our valises in Left Luggage and walked the short distance to the address in Aldwych. There we were met by a Mr. Boothroyd who gave me a fat envelope containing tickets, money, a note with the hotel address and instructions on how to find it. I was unfamiliar with the hotel, which was where we would also hold our meetings on Friday. Fortunately, it appeared to be in a reasonably fashionable area not far from Princes Street.

Mr Boothroyd informed me – Amelia was ignored on a seat in the ante-room and only I was ushered into his office – that the company had doubled the equipment inspections and added an extra guard in view of the unfortunate events in Paris. Moreover, two of the guards had been given revolvers. The management clearly had the wind up.

I was glad to escape Mr Boothroyd's nervousness, but before exiting I put the train tickets in my wallet and the money and instructions in a separate inside pocket. My briefcase was in left-luggage, actually inside a rather large valise. A pleasure trip, even a pretend one, would not be attended by a briefcase.

We found lunch in a pleasant public house along the Strand. Sometimes it is helpful to overlook class boundaries. They had a pleasant cider which we both had with some scotch eggs and bread, cheese and pickles. We spent the rest of the afternoon in the National Gallery. Amelia is quite knowledgeable about artists, and it is a joy to me to hear her

enthusiasms. Also I must read a great deal for my work, so in times of relaxation such as those at the Gallery it is agreeable to simply be able to listen.

Around closing time, we returned to Charing Cross and collected our luggage, then took a hansom cab to King's Cross. Boothroyd had suggested we take dinner on the train, which departed at 8 p.m., so we simply had tea in the café while we waited, though some scones took our fancy. They were, sadly, less tasty than they appeared. We even left them half-eaten, something that offends those deeply held habits entrenched by frugal parents.

At 7:30 we went to the platform. Forgetting our position, we omitted to engage a porter, and were the only passengers for our sleeper car carrying our own valises. Our steward was a Scot – I think from north of Edinburgh by his accent – and he informed us that we could proceed as soon as we wished to the dining car. Once he had opened our luggage and hung up our coats, I tipped him a florin and asked him to wake us in the morning about half an hour before arrival.

Amelia checked her hair. I combed what was left of mine, and we went to the dining car. Another scot greeted us.

"Good evening, Sir. Madam. May I seat you here?"

We took our chairs. Outside there was bustle and doors slamming. Finally a whistle and the train started moving with a slight jerk. Our waiter returned and said, mostly to me, "As it is All Hallows Eve, sir, we have a selection of malt whiskeys so that at least there will be some spirits about. Would you like to start with one?"

I should – at this rather late stage – tell you about Amelia. While I have achieved six decades on this earth, Amelia is barely 40 and looks a good deal younger. We met when my first wife, Geraldine, was dying of a cancer of the feminine organs. Amelia was a private nurse, and a very good one. That was about fifteen years ago. Our relationship then was always totally correct. It was not until a year after Geraldine's death that, by chance, I encountered Amelia on the Commons when she had a day off from her duties. I offered tea and she accepted. After several months where we met from time to time for walks or lectures or concerts, we realized we liked being together. We have now been married for over a dozen years, and they have been the happiest of my life. I believe also for her.

However, despite our entirely proper and legal relationship, she is often mistaken for ... well ... my mistress. In this late year of Queen Victoria's reign, many men in my general situation seem to have mistresses. It even seems that few married couples sleep in the same bed. I know this particularly from overhearing Betty talking to cook one day, saying "They must be the only pair in town that use just one bed. Not that I'm complaining – less work for me."

In the dining car I could see that there was another engineer I knew. His companion was not the wife I had been introduced to. This lady and Amelia were getting looks from other diners. Amelia took off her gloves and put them in her reticule and rested her hand where

her wedding ring was visible. I have told her, likely on more than one occasion, that this probably will not convince those willing to think badly of us.

The waiter returned with a trolley on which there were a number of bottles. I like malt whiskeys, but am not well-informed about their qualities, so I simply chose a name I recognized.

“Will you take water or soda?” the waiter asked.

“Neat please.” I said.

“And for madam. Perhaps some sherry?”

“No. The same as my husband. Neat.”

“Madam, the railway cannot serve a lady neat whiskey.”

“It is All Hallows Eve, I am Scots born, and I will have my whiskey undiluted.” Amelia said. She did not shout, but her voice was clear and almost certainly audible to all in the carriage. The waiter looked discomfited, sensing his gratuity evaporating faster than any alcoholic spirits present. I had, honestly, overlooked Amelia’s Scottish birth. She was brought to England as a baby, and she had no remaining family connections.

“Of course, madam,” said the waiter, and poured us our measures.

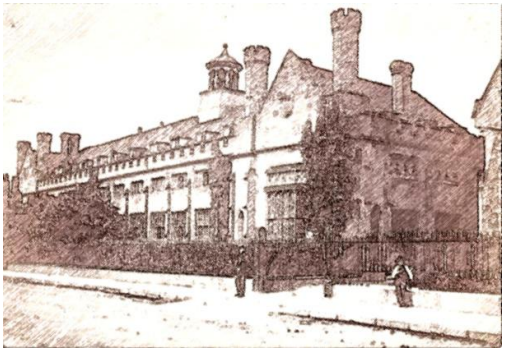
Other diners were now more interested in us than ever. I held up my glass, “To my wife, the love of my life.”

“To my husband, who is mine.” Amelia responded.

A middle-aged couple across the aisle caught our eye. They raised their glasses to us. We responded in kind. The train raced on through the night. We ate a splendid meal and retired to our compartment shortly after the train left Peterborough. After we had used the ablutions and donned our nightgowns I was about to take the upper bunk, when Amelia said “Richard, come in with me. I want you close. The Halloween demons have already put mischief words in my mouth and I need you to keep them away.”

As I said, the love of my life.

Ironmongery



Before I squeezed in next to Amelia, I gathered the pillow from the upper bunk. Once I had managed to arrange myself under the covers beside her, I extended my arm and she put her head on my shoulder, but interposed her pillow. We have done this often, so the whole operation was accomplished wordlessly. I could feel her unencumbered breasts beneath her nightgown. A wonderful comfort, and .... Was her intention that we share the bunk for more than sleep?

“Amelia. Do you want more than this?” I asked, knowing that she would understand immediately.

“Only if it would be uncomfortable for you otherwise,” she replied.

“No, your closeness is quite sufficiently satisfying,” I said, truthfully, kissing her on the forehead since her lips were rather out of range. “though I do hope we have some time to indulge ourselves while in Edinburgh.”

“Yes. I hope so too,” she said with evident enthusiasm.

Within a few minutes I could tell she was asleep. The train raced on with the steady clackety clack of the wheels on the rails. Almost certainly I slept too, but my dreams and my memories coalesced. I was somehow transported back to my youth.

I was born not more than five miles from where I now lived. My father, and his father before him, were ironmongers in Tonbridge, but until 1870 it was spelled Tunbridge, just as Tunbridge Wells now spells the name. My grandfather did well, and my father I believe did even better. By the time I was born as the third child to my parents in 1834, they had shops on the High Street in both Tonbridge and Tunbridge Wells, and my uncle ran a couple of waggons from which he sold similar goods over a radius of several miles. The shops and waggons both carried the same names, and though they were nominally

separate businesses, there was a good deal of overlap in how they acquired the goods, and they would also shift items between shops and waggons to balance the stock.

My grandfather and his two sons also ran a wholesale business under my grandmother's maiden name. This dealt mainly in ironmongery, and would aggregate products and materials for the retail trade of both themselves and other merchants. This evolved quite rapidly in the 1840s – which was after my grandfather had passed on – as the railways and other engineering works were undertaken in the area, and gradually the majority of the profits of the wholesale business were in supplying such projects with tools, nails, screws, and other items that might be needed in a hurry. The railways were large enough to contract their rails and sleepers and shingle aggregate directly, but there were always urgent necessities. Ever on the watch for a good return, my father and uncle tried to keep on good terms with merchants of timber, brick and other builders' needs. This was not too difficult as the brothers had three sisters, and each married husbands in such trades.

As I only occasionally worked in the business, I cannot speak to their manner of conducting it. However, the fact that they appeared to be mostly respected for fair dealing suggests they relied more on nimble and efficient response to opportunity rather than extorting a high price when they had a particular advantage.

I vaguely remember my grandfather as seemingly a very old man with a long beard. He had retired from an active role in the business and he died when I was but five years old. It is a shock to realize that he died younger than I am now. Life had been hard for him I suppose. He left each of his grandchildren £50, kept in trust at a small interest until we were each 21, including the girls. And he stipulated "For each to spend only on themselves and not given to a spouse, parent or child." For this, at least, I think him a great man, though it is almost certain the law concerning married women at the time would frustrate his wishes should the girls be wed.

I also recall the bunting and some scenes of the celebrations for Queen Victoria's Coronation in 1838, the year after her ascent to the throne, when I was in my fourth year.

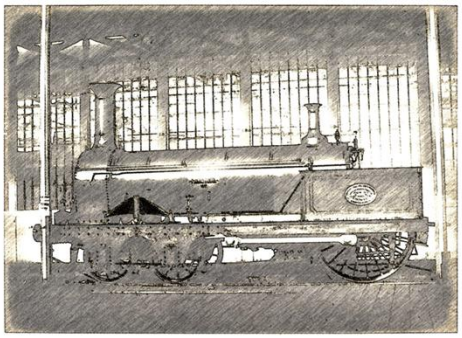
My schooling started at home, where my mother taught me to read and to do arithmetic. My father found my adeptness with figures pleasing, and the fact I could also reckon pounds, shillings and pence caused him to give me some pocket money for checking the account books when I was but six or seven.

At eight, I was enrolled in Tunbridge School, where I mostly enjoyed my studies, though I never found pleasure in Greek or Latin. In later years, I wished they had offered French or German or Spanish. In English, I found I did well, though my compositions were likely as stodgy as over-boiled dumplings. In arithmetic and later mathematics, however, the teachers could not keep up with me. Fortunately the maths master allowed me to study on my own and take tests he himself set for me. In this way I learned about logarithms and trigonometry. I bought my own copies of Barlow's tables as well as those of Mr. Templeton. In my last two years at school I even had occasion to work with the trigonometric and other

identities and with some of the series expansions of Taylor and McLaurin for computing the values of functions.

At the age of 13, my father asked me what occupation I should like to follow to earn my bread. I said that I thought that it would be interesting to be an engineer and that it should earn me a comfortable income if I were good at it. He smiled as I told him, and said he would look into the matter.

Apprentice



LOCOMOTIVE ENGINE.

The wholesale business was likely how I came to be apprenticed as an engineer under James Cudworth of the South Eastern Railway in 1848. It is probable that he knew my father or uncle and one of them asked if there might be an opportunity for me. They both knew I was madly keen on railway engineering, especially the locomotives. So three days after my 14th birthday, I said goodbye to my mother and sisters and walked with my father to the railway station and took the train to Ashford.

I had in my pocket a letter from Cudworth. When I arrived that Monday morning in Ashford, I went to the address where it had been arranged I would lodge and there met my landlady, Mrs. Babcock. She was a sturdy, friendly woman who immediately took me up to my room.

My room was tiny – just room for a single bed and a washstand along one wall, and 18 inches of space to walk. The room was fortunately long enough for the door to open inwards without hitting the bed, and there were a few short shelves attached to the wall parallel to the bed as well as two hooks on the same wall as the door. One of my first engineering tasks would be to strengthen the shelves and hooks before my few belongings rested on the floor. There was a small shelf for a candle holder on the wall opposite the bed, but no source of heat. A small window let in grey light beside the washstand.

My father, I knew, had paid a significant amount – I believe 25 pounds a year – for my apprenticeship, which would last 6 years. In olden times – in fact until after 1800 – the conditions were quite severe, and for 7 to 9 years. But now they were less onerous. I would not be paid, but would get board and lodging, with an allowance for clothing and work materials and tools. My father had also generously said he would allow 4 shillings a week for my pocket, but that he expected me to use it well.

Of course the Railway would get my work, and even as a trainee engineer I should be able to do some useful things for them. In the latter years of the apprenticeship, there might even be some remuneration for special jobs.

At noon I presented myself in Mr. Cudworth's office and was shown in to meet the man who would be my master during the apprenticeship.

"Ah. Mr. Carr. Welcome. Has Mrs. Babcock seen to your accommodation and feeding."

"Yes sir."

"Now I am wondering where I should start you a-learning. Tell me what you might be good at."

"I am told, sir, that I have a facility for reckoning, and that I am good at mathematics."

"So. You can add, subtract, multiply, and possibly divide?"

"Yes, sir. And recently I have been learning trigonometry and logarithms."

At this he looked at me suddenly. "Is that now part of the Tunbridge School syllabus for young gentlemen of your age."

I responded by telling him how the mathematics master had given me leave to read and study on my own with his occasional tutelage and tests. Cudworth said, "In that case, I think I shall assign you to Mr. Henderson and the surveyor's department. I will write him a note that you shall take to give him. I believe that he can, and should, have you check the calculations. He will, of course, have to explain them, and I will ask him also to use your time in learning how to survey, which is a skill all engineers should have. Let us see how you manage there, and then I would like you to come back at the beginning of December and we will review your progress."

It may seem like a boast to say that my time with Mr. Henderson went spectacularly well, but it seemed that Mr. Cudworth had chosen an ideal starting place for me. My only difficulty was that I recognized my fellow apprentices were far behind me in understanding the mathematics, and appallingly slow at calculation, and nobody likes to be seen inferior. At one point, I realized my understanding of some parts of the mathematics was better than that of Mr. Henderson. Somehow I was able to recall a conversation with my father to the effect that even if you are brighter than someone else, you should allow that knowledge to escape from your work and not from your mouth. It was a challenge to put that into practise, but fortunately I did, and managed to get along with my colleagues and my superiors.

After I had learned surveying, I was often given survey calculations to check, or else sent along with a survey team to plan a route or an alteration being considered. However,

Cudworth moved me around to various departments, including his own preoccupation, which was locomotives.

Through my apprenticeship, my ability to calculate was ever the introduction to new fields of engineering. At the Ashford works, I soon learned the importance of knowing all the properties of the materials that built and propelled our steam horses. Early workers used what they had, sometimes making overly heavy and almost immovable engines. Other times the boilers could not withstand the pressures. More commonly our enemy was inefficiency or instability.

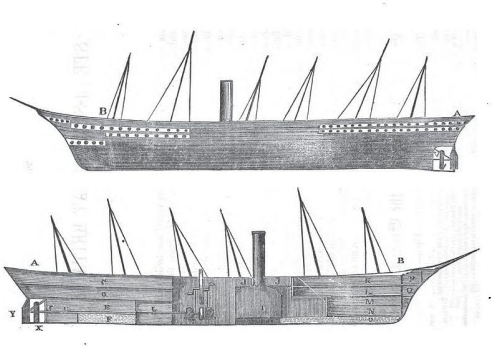
Cudworth, perhaps unknowingly, introduced me to the problems of dynamical forces. The South East Railway was one of the few companies to use the Crampton locomotives in England, though they were popular in France, becoming a synonym for express trains because of their speed. In today's world they look very odd, with four small wheels bearing the very front of the long boiler and two large driving wheels at the back, right below the footplate, which had no cab – the driver and fireman were outside in the elements. Moreover, as the 4-2-0 Cramptons were built for us by Mr. Stephenson's company, the cylinders were underneath and between the wheels, driving a crankshaft that then pushed the driving rods on the outside. One such was shown at the Great Exhibition of 1851 for which I was allowed three days leave – unpaid of course – to attend.

The placement of the driving wheels allowed them to be of a larger diameter, giving the Cramptons their speed. The internal location of the cylinders meant that the alternating movement of the pistons was closer to the centre of the mass of the locomotive, so the moment of these movements was smaller, allowing less dynamical oscillation at speed, especially on the relatively narrow so-called standard gauge of 4 feet 8 and 1/2 inches which the Stephensons had championed.

There were a number of locomotives at the Great Exhibition. Daniel Gooch of the Great Western showed off one of his Iron Duke locomotives. These were a 4-2-2 design, with very large driving wheels. They were able to pull a 120 ton train at over 60 miles per hour and it was believed that 80 miles per hour was possible. On the 7 foot Great Western broad gauge, they pulled the worlds fastest trains for a number of years. Indeed, some of these locomotives were still in service when I returned from Canada.

Yes. Canada. I had not met Amelia yet ...

Opportunity Abroad



My apprenticeship came to an end in the latter part of 1854, and I became an employee of the SER. Because of my ability in calculation, the company had previously allowed me some small extra monies, which were helpful to my comfort and afforded me some opportunity to purchase some books and tools of my trade, particularly a good ruler and extra pencils. In the longer run, the principal advantage turned out to be letters of introduction to engineers who were building railways in the Canadas, in particular to Samuel Keefer, Resident Engineer for the Montreal to Kingston section of the Grand Trunk Railway.

Early in November 1854, I received a letter offering me a position where I would be assigned variously to perform whatever engineering tasks were needed as they arose – that would be my official charge – but actually to carry out verifications of the many calculations that would be performed in the routing, design, construction, and operation of the railway. He asked me to keep the latter information confidential, and to note that my work may demand a certain level of diplomacy should I uncover errors. This lesson I had already had occasion to learn. Nobody likes to have their mistakes revealed. With the SER, I generally found it best to approach the person who made the calculations first and ask for help in fixing what I termed my mistake, thereby allowing them to discover and correct their own. Still, it required delicacy.

Travel to Montreal through the winter was not advised, and I received another communication in December that included a warrant that would give me cabin passage on the SS Great Britain, leaving London April 2, 1855. This was exciting news, as this ship was the first to use an all-iron hull, moreover, driven by propeller rather than paddle wheels, though she had iron masts for sail. She had been the longest ship in the world for almost a decade. I hoped I would be given permission to see the workings, to which there had been numerous revisions in the few years since the ship's launching. Indeed, the Great Western shipping company had gone bankrupt and the Great Britain was now owned by Anthony Gibbs and Sons and mainly used for the Australian route. I later learned that there were to be only 12 of us as cabin passengers and 23 in steerage, hardly a regular contingent, though

there would certainly be cargo. There were reports that the government was chartering ships to carry troops and supplies to the Crimea, so the ship may simply have been positioning to Canada to transport troops and materials from there.

My employment with the SER continued right up to the end of March in 1855. The news at the time was full of the unhappiness resulting from the war with Russia over the Crimean Peninsula. There had been some riots in London. I hoped that my journey would not be impeded, and in the event had no difficulty in getting myself and my baggage to the docks.

My departure from Tunbridge was, you may imagine, emotional and somewhat distressing. My mother was in tears, my father very quiet. Still, we had talked of the opportunities that the new ventures in Canada presented, and my father and uncle had both made useful suggestions of what things I might want to pack in my trunk.

The voyage from London to Quebec would take over a month. In part this was because London is on the wrong side of Britain for the Atlantic routes. Also there were few passengers and no prestige in speed on the particular route, so it made sense for Captain John Gray to steam at an economical rate of knots and to use the sails when favourable to employ them.

I was assigned to a first class cabin with a Mr. Owens who was taking up a position under the new Secretary of State for the Colonies. He would be getting off in Quebec, but I would stay on up to Montreal a day or so later.

There was one family of four in another first class cabin, four other gentlemen, two to a cabin, and two ladies who shared a cabin on the other side of the ship where the family had their cabin. Because we were so few, the dining saloon had been partitioned off and was used for light cargo and, I believe, our luggage that was not wanted on board, though the partition blocked any view and was sturdy and locked against pilfering or interference.

Because we were but two, Mr. Owens and I could each have a lower bunk, saving us the risk of injury getting in or out of bed should the weather become rough. Furthermore, the upper bunk for each of us afforded a space to range our clothing.

Before leaving home, my father had asked me how I proposed to shave on a moving ship. After some discussion, we decided that I would commence to grow my beard. This would remove both the risk to my throat and save me the daily – indeed sometimes more than daily – requirement to scrape my skin.

On the other hand, I brought in my luggage a canvas bucket. Mr. Owens found this a strange object, and was possibly hiding his mirth when I put it beside the bed. However, the motions of the ship gave both of us a bad time for about a day, and my canvas bucket saved a deal of unpleasant mess on the floor.

As I had been involved in surveying for the SER, and wanting some preoccupation to fill my time on board, I had made myself a simple cross staff for measuring the height of objects

above the horizon. Knowing that looking at the sun is injurious to the eyes, I modified this into a form of back staff using a small shadow target and also a small mirror that would allow me to possibly sight stars or the moon, but I still used simple cross bars to measure the angles.

The using of this object had important outcomes for my life as well as contributing to my enjoyment of the trip. When I went up to the weather deck to use the device, it was for the first few days an object merely of curiosity. Then as we left the Channel and started into the open Atlantic, Mr. Stephens, one of the officers, asked me if I was calculating our position. I told him that I was trying to do so, but was purely an amateur in navigation, though my occupation as an engineer involved surveying calculations which were not so dissimilar. He said if I wished he would let me compare my calculations with the ones he was using for the ship.

This led us to both learn some new things. Stephens found my method of calculation with additional check columns quite interesting, and at one point it revealed a small error in his calculations which he was able to correct before it put the ship on the wrong course. On my part, I gradually got better at doing the measurements of the inclination of the sun on a moving deck, so that eventually my accuracy was not so horrible compared to the professional figures. My friendship with Stephens also allowed my curiosity about the ship's machinery to be fully rewarded.

The second way in which my back-staff influenced my life was that I met Geraldine, who later became my wife. While I was on the weather deck the second time I tried the staff, she said "May I ask what your ruler is intended to measure?" which led to our initial conversation.

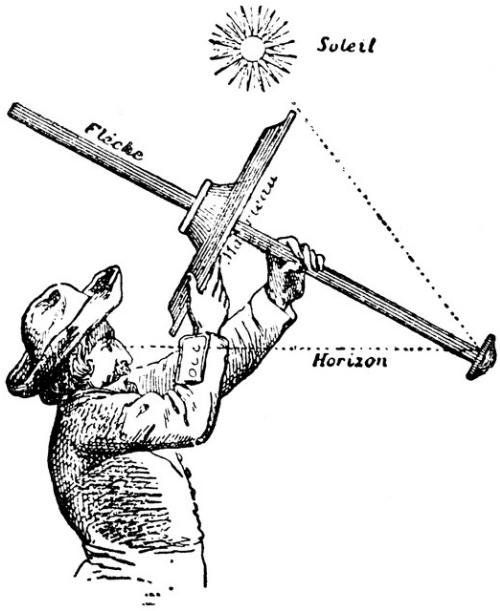
Geraldine Meade was from Winchester in Hampshire, where her father had been a clergyman. Her mother had died in childbirth along with the baby that would have been her brother. Her father was rather older than her mother, and succumbed to some crisis of the heart in 1853. Fortunately before he died, he had arranged for her to finish her education at a quite good girl's boarding school. Geraldine was left a little money, but her prospects were uncertain. Her father's younger sister had married a man who became a merchant in Montreal, and they suggested she join them there, where she might teach in a school or otherwise use her education.

By the end of the voyage, Geraldine and I had what is generally referred to as an understanding, though we dared not make any public announcement of our feelings. It is possible that we were both essentially alone and sought alliance and friendship.

We were fortunate in our journey to be so few as passengers, as I believe that reduced the chances of disease. As we approached Quebec, a doctor came on board and examined every member of the crew and passengers. Had anyone fever or other symptoms, we would have had to anchor and wait on Grosse Isle under quarantine.

As I left the Great Britain, I had occasion to shake the hand of our captain, Mr. John Gray. He had the reputation of a fine sailor and a stern but good master. It was with sadness I read of his loss at sea in November of 1872. He was seen one evening, then was nowhere on board the next morning. The purser found an open porthole that had been screwed tight the night before. The captain's loss remains a mystery. Perhaps a fitting story for All Hallows Eve.

Surveying and Calculating



I was pleasantly surprised to see a young man with a piece of card with my name on it at the bottom of the gangplank when we disembarked at Montreal on May 9, 1855. I had already said my farewell to Geraldine, but had the address of her aunt and promised to renew our acquaintance as soon as I was settled. My greeter was named Joseph Lefebvre, and while he spoke excellent English, it was clear his mother tongue was French. Later Joseph would help me to learn to speak the local dialect, replete with some words that have no use in polite company. Indeed, I do not know their polite versions.

Joseph conveyed me and my luggage in a cart he had engaged. We went first to a boarding house where the Grand Trunk had engaged a room on my behalf.

“If you find it not convenient, it is only engaged until the end of next week.” It was now Wednesday May 9 in the afternoon. “However, I have lived in a number of rooming houses, and this one – though a fraction more expensive than most – is the best I have been in for cleanliness and good food.”

Joseph introduced me to Mme Dubé, a jolly woman who I would guess was in her 40s. It was clear she spoke only a little English. I tried my French and received a wide smile.

“Ah. Les anglais. C’est rare qu’ils deignent parler français.” she said. I made a note of the information and the lesson it contained, and was quite assiduous in my efforts to learn and use the local language where it oiled the process of my work and life.

We did not stop long at Mme. Dubé's, but proceeded, now on foot having discharged the carter, to the offices of the Grand Trunk. There, after a short wait, Samuel Keefer received me in his office. I was surprised at the length of the interview. He wanted to know about the Great Britain and then, when I happened to mention it, my back staff, even to asking me to bring it to the office on some occasion. He seemed pleased that I had undertaken such a pastime while travelling.

The conversation then turned to my work.

"Carr. I will be frank. We need to make sure our calculations are all checked and double-checked. Small errors can cost thousands of pounds." This I knew from the South East Railway. He continued, "I will have you nominally as my fixer of problems, and will make known that people are to ask you if they are uncertain how to proceed. No. Do not fret that you will be out of your depth. You will not be expected to actually do the fixing, but to write reports summarizing what you observe, and then investigate what solutions may be available. At the same time, I want you to do as I will and talk of the importance of measurement and calculation done properly before resources are expended on iron and stone and wood and the muscles to work them."

I replied "That suits me well, sir, as I have in my study and apprenticeship come to realize the importance of the numbers from good measurement and careful reckoning."

"Mind you," Keefer added, "I'll have no slacking or lording it over others. Cudworth told me you had a good sense for working with folk, and I'm hoping he was dead to rights about that."

Keefer then showed me to a tiny office, the door of which already had my name. I nearly fell over with surprise. In England, someone as junior as I would never have an office, even one such as this that was hardly big enough for a small desk and single chair. However, I noted that there were a couple of gas lamps, one which lit the desk well, which would be good for calculations.

"Step inside, Carr." Keefer said, after which he shut the door. He reached in his pocket and took out a ring with 2 keys and handed them to me.

"The larger key fits the door. The cleaners and others, including myself, have that. The smaller key is for this," and he pointed to a small safe that was embedded in the wall in the corner. "I have the only other key, at least I hope so. Some of the work you will do may be of a sensitive nature in that it may reveal the route we may use or the materials to be purchased. That information in the wrong hands could cost the company dearly."

"If you write any report containing such information, I will ask that you not send it to me by the regular way. Rather simply send me a note with a suitable subject and possibly some general information of particular profit to nobody. Include the phrase 'I have the following task or tasks completed', rather than 'I have completed the following tasks'. Then I will

know to find the important information in the safe, on the topmost shelf. Keep other sensitive material elsewhere in the safe."

He continued "If I have something for you, I will send a note or telegraph 'Earliest please ...' rather than 'Please urgently ...' to indicate you are to find my communication or materials in the same place. I have not thought how to communicate if you are far away for work and I need to get you information quickly, but I will likely use the services of a trusted messenger, probably M. Lefebvre who you have already met. He is but 15, but I find him able and quick."

"Yes, sir, I found him so."

"I have arranged that there are pencils and pens and paper for you here. You should see the pay clerk to arrange for payment of your salary. You may wish to establish an account with the Bank of Montreal and your salary will be then deposited whether or not you are in Montreal. You will have room and board when travelling, but I recommend maintaining an address here, even if you have to pay the cost of food not eaten. On the desk is a set of instructions for tomorrow morning. I'm afraid you will be travelling right away almost, as I will have you leave Friday morning for Kingston to check on the surveys and also meet the men doing them. A very good day to you, Mr. Carr."

"Thank you sir." I said, but Keefer was away like an express with the safety valve held down.

I went immediately to find the pay clerk and glean what information I needed from him. He wrote me a note for the Bank of Montreal, but it was too late for me to go to their offices on this day. He also gave me a letter for an outfitting shop, and told me the Company would pay half my expenses up to an overall total of 20 pounds. Moreover, I could purchase items there on the Company account, and a regular deduction would be taken from my salary until the total for my half – up to 10 pounds – were refunded.

Returning to my own office, which I had locked as a practice I wished to become habitual, I tried the safe, checked the contents of my desk, noted that I had a good coat-hook, and then looked at the instructions for Kingston. It appeared the bridge west towards Kingston was completed in the year before my arrival, but the line was still being constructed and had not yet reached Brockville. I had already found a set of maps in my desk in an oilcloth envelope. It was clear I would need them, and, moreover, I would need to learn the geography of the Province of Canada.

Looking at the maps, I saw Bytown on the Ottawa River and the mark of the Rideau Canal to Kingston. I hoped I would get to see that. Colonel John By had apparently built a particularly well-engineered canal, with very large locks by the standard of the day. But now I recalled that someone at dinner on the ship said that as of January 1, Bytown was to be called Ottawa.

My maps were thus already out of date, and my work and that of my colleagues would make it more obsolete sooner rather than later. I soon learned that they also did not include the Bytown to Prescott Railway that had started operating at the end of 1854.

There was a knock at my door and Joseph was there. I showed him my office, tiny as it was.

“Mr. Keefer says that you are not required to stay until 6, and that I am to take you to shop for clothing suitable for surveying. He said the pay clerk has given you a note for the particular shop where such items can be obtained.”

Off we went to an area where there were a number of merchants. As we walked, Joseph confided that Mr Keefer had told him I would be checking the work of others. We were, apparently, his eyes and ears – Joseph to learn if there were trouble brewing with the workers, the neighbours or possibly competitors, since he was good with language and young enough to seem innocuous, and I to take care of the engineering side. I hoped my knowledge and skills were good enough.

At McIsaacs I acquired a good set of items, which all but exhausted my allowance

- two heavy woollen shirts
- two linen shirts
- two under-shirts
- two pairs of long drawers
- two pairs of short drawers
- a short but heavy blanket coat for warmth but ease of movement
- a large leather belt for the coat
- two pairs of woollen trousers
- one pair of linen trousers
- a belt for trousers
- three pairs of heavy socks
- a woollen hat, called a toque
- a pair of mittens
- a pair of heavy working gloves

- a warm scarf
- a pair of strong boots
- a pair of moccasins

The last item was one I would not have purchased, but I took Joseph's advice and over the years would wear moccasins whenever I could. They were much more comfortable than either shoes or boots, and could be doffed quickly should a canoe upset or one fall into water.

To carry the above, Joseph suggested I buy a heavy canvas sack with a good drawstring. For my maps, I added some extra oilcloth and canvas ribbon. Thus burdened, we retired to Mme Dubé's house where we had time to wash up before supper was served at seven.

Dinner was my introduction to cassoulet, a sort of stew made with dried beans and usually with goose meat, though tonight a brace of ducks brought by a member of Mme Dubé's family had been employed. It was very good. The house had eight lodgers in all. Five were French Canadian and two were Irish immigrants. The Quebeckers chattered in French, with Joseph occasionally translating, though I found I started to get the gist of things as my ear accustomed to the accent and my long-ago school French came to memory. The next day I suggested to Joseph that he need not translate for my benefit, but that I had said nothing for fear of alienating the Irishmen, whose inclinations I did not know. Given the troubles in Ireland, I had no wish to seem a particular ally of the Orangemen.

Thursday I was, according to my list, to arrange a bank account so that I could be paid, even if out of town, and also so I could transfer monies to other towns for my needs if the sojourn were more than a short while. Then I was to visit a list of gentlemen in the office so that we were acquainted with each other and I would know their responsibilities. I made sure to talk up calculation and measurement.

For the afternoon, I was to familiarize myself with the layout of the track so far, then at two o'clock go with Joseph to the Depot to learn its plan and its resources. Getting a good presentation of the locomotives and the cargo for tomorrow took us until five o'clock, when we went to find the supervisor for the next day's run to the end of the workings near a town called Cornwall.

Armand Belisle was a large, heavy-set man in his late 40s. He welcomed me and told Joseph and me to be at the Depot at a quarter to seven, as we would depart on the moment of seven o'clock. He wished to get to Prescott, unload, and be back before dark to avoid running in the dark before all the signals and safety provisions were in place. A voice called out something in French I did not comprehend, and Belisle dismissed us and hurried away to some task.

We could not think of more to do, so, thinking of what we might need for my work, we stopped at my office to get some paper and pencils – I decided ink would be too risky to carry. There was, however, a note on my desk.

Earliest please report general impressions of rate of
progress of line to Brockville.

Keefer's signature was below.

From what Keefer had told me, Joseph was part of the private enquiries to be made, so I locked the office door and opened the safe. There was a single page message in the appointed place.

Carr,

I am concerned that there have been three boiler
failures of the engine on the steam winch used on the
Brockville line. We have had to repair the boiler each
time already, and work is much slowed when it is under
repair. See if you can find out what is going wrong.

Keefer

We put the letter back in the safe, but not in the place where exchange of messages would take place, locked the safe, then the office, and retired to Mme Dubé's to pack our bags for the morning. We would likely be away up to two weeks.

Supper tonight was a hearty pea soup with pork hocks cooked therein, along with some splendid bread. The others planned to go for a glass of beer, but I felt fatigued by the novelty of my new situation and took an early night, asking Mme Dubé to wake me at six if she could. Joseph had also said he would wake me, his usual time to rise being five.

* * *

We journeyed to the end of the rail construction, which was near the town of Cornwall. Joseph and I rode in the brake car at the back of the train of several loaded flat waggons along with Belisle and the brakeman. The roughly seventy-five miles would take us a good three hours. We were carrying construction materials, not paying passengers, and stopping for fuel and water would lose any advantage of going faster. Thus it was nearly half-past 10 when we got to the workings.

Belisle said "You can put your sacks in here," as he opened a small hut that had a lock. "Joseph has a key. So do a couple of other people, but not the local workers." I wondered about this, but would have to wait until later to ask Joseph about it.

Joseph told me I should probably bring my moccasins, so I got them and put some paper and pencils in my small haversack and we walked up to where the rails were being laid. Belisle introduced me to Sean O'Reilly, the foreman. He was a rough, wiry man of about 35.

"So, Carr. What've they sent you here for?" he said accusingly.

"My main duties will be to verify calculations for surveys and such like. But first of all, I have to learn how things are done here."

"Oh. Then you'll tell us how the English expect it to be done." O'Reilly sneered.

"We are not in England, Mr. Reilly. This is Canada. I said I was here to learn, and I meant it."

"We'll see. We'll see." O'Reilly said, turning away.

It was not a good start. But I wasn't about to kowtow to the foreman. There were enough men about who heard the exchange, and I noticed some sideways glances.

Joseph and I walked on up the right of way. We'd been told there was a survey team checking the position of the stakes for the laying of the line. We found them about a mile and a half from the end where there was a small watercourse to cross. The crew was on the other side, but they sent a canoe across.

Joseph took off his boots and set them in a bush upside down. I realized this would let them air and also make sure they didn't fill with rain should the weather turn. In our moccasins, we walked down to the canoe. The paddler was clearly a local Indian. I said,

"Hello, I'm Richard Carr, here to learn and to check calculations."

The Indian seemed surprised, but said, "They call me Adam."

"But that is not what your family call you, I suspect." I replied.

"No sir, but the railwaymen here don't like to use the name my people gave me."

"Perhaps later you will tell me. And no 'sir' please. Either Richard, or if you must, Mr. Carr."

Joseph greeted Adam in French, well, a sort of French I was just beginning to comprehend. Then he explained how to get into the canoe without tipping it, which we did, and Adam paddled us across the quite narrow channel. It could not have been more than about 30 to 35 feet, depending where on the banks one measured.

The head of the survey team was a Mr. Henry Shaw. We made our introductions and I suggested to him that I could be put to work verifying calculations, to which the reply was a big smile and "If you can reckon quickly, we can use you very handily."

Joseph said he had other business and would meet me at supper. The small hut where our bags were locked would be our sleeping place. I'd noticed some tents a bit further back along the line, which I guessed – later to be confirmed – were where the workers slept. However, work would go on as long as there were sufficient light, and pay was by track laid or other such measure of output.

This day my work was not at all difficult, as the general route had already been laid out. We were to decide the particular line of the track, smoothing out any curves that had been established to avoid major obstacles. We also were to put down markers for distance from the start of the current section. These gave the men an indication of how much progress was being made.

For the most part, once the line was taped, the distance measure could be made with the Gunter's chain and poles to place it. We'd not need our surveying compass for that. There were some measurements of the distance of the tape from set markers and landmarks, and those did involve the compass and theodolite and trigonometry. I'd my knapsack with paper and pencils and a thin board so I sat on a bank of earth as did Mr. Shaw and we both did the calculations. I was done in half the time it took him. When we compared values, my heart sank. I said,

"Oh dear. I must have made an error."

"Let me look and see if it is obvious," Mr. Shaw said. He was being very polite. I was the new boy.

Then he said "What are these figures in this column to the side?"

"Oh. I use a system of check values. They don't prove something is wrong, but if there is a mismatch, there is almost always an error."

"Never seen that, but it could be useful," Mr. Shaw conceded.

After a few minutes, he said "Maybe you should look at my figures. It could be the error is mine."

I spotted almost immediately a copying error where two digits were transposed, and asked "Mr. Shaw, can we compare the result of the first section?"

As we did, he saw his error, which saved me pointing it out. After he'd made corrections, we found we were in agreement. Shaw said, "You did those calculations prodigiously fast. I've a mind to let you do them all."

"Would that not defeat the purpose of checking?"

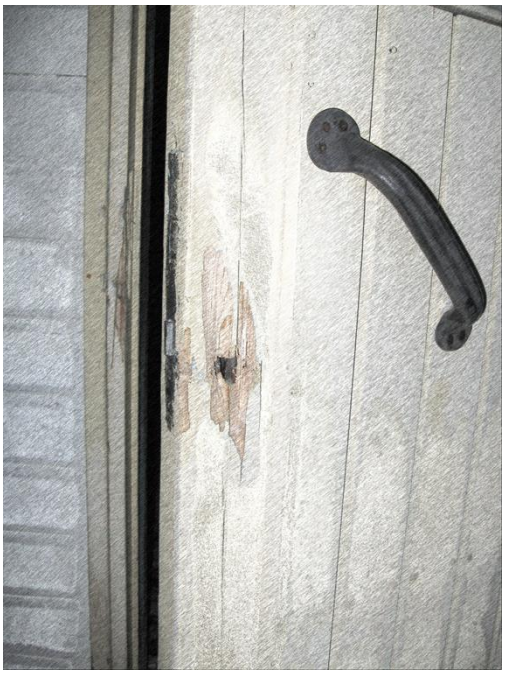
“Aye. I suppose it would. But maybe you can help me – and also the others – to learn your check columns and also to do things quicker. The reckoning is the most onerous part of the job.”

“Most people say that. I suppose I’m a bit odd that I find it suits me. And I’ll be glad to share what I can of my skills.”

Thus we established a good working relationship.

* * *

Menace and Strife



It was dusk when I got back to the hut. Joseph had just arrived with a pot – a sort of covered bucket – of stew. His face showed a very worried look.

“Richard. I have to tell you that when I got here not five minutes ago the lock was smashed and someone has gone through our things.”

“Has much been stolen?”

“I think not. But you had better check.”

There was much chaos of my things. The half of the pencils and paper I did not take with me were strewn about, and each pencil broken in two. Well, I could use the stubs. I gathered up the paper. Most of it was a bit soiled, but still usable. Our clothes were on the floor, and we picked them up.

“Joseph, I don’t think anything is missing, but I keep all my important personal belongings with me in my knapsack or pockets. Is anything of yours missing or damaged.”

“Nothing missing but some buttons off my shirt. Someone cut them all off and they are not here. It looks like this has been done to annoy us, but possibly to find out if we were carrying any particular instructions. Like you, I keep anything important with me.”

“For the shirt, I have some buttons and a needle and thread in my knapsack. But who is the likely culprit, Joseph? Wandering thieves?”

“I think if they were thieves, we would have nothing here. I am inclined to think it is someone who doesn’t want anyone interfering with their business.”

“Who might that be?” I asked.

“My immediate thoughts are Sean O’Reilly. There have been rumours that men who he engages have to pay him a tenth of their pay or they lose their job. There is discontent. And there are other things going on that Mr. Keefer doesn’t like, besides the breakdowns of the steam crane.”

“What other things?”

“It’s thought there may be theft of materials such as spikes or fuel. The tools are on an inventory. Men are charged if a tool is lost. If one breaks, it has to be exchanged for a new one.”

“Surely spikes are easy to check?” I said.

“But it would be easy to lose a few boxes, then sell them to the company again if one had an accomplice in the right place.”

“We can, at the very least, estimate the losses. We can know the extent of loss easily by subtracting the number of spikes used from the number the train brings up.”

“Well, I have the numbers delivered in my knapsack,” Joseph said.

“I don’t have the exact length of progress, but we can estimate it, divide by the distance between ties, and multiply by 4 – 2 spikes per rail per tie.”

We had been eating the stew with bread, and Joseph had a kettle going on a small fire. We lit the lamp and had tea, and he took out the delivery numbers. Very soon we had an estimate that about a fifth of the spikes were being lost somewhere.

“I think Keefer should be informed.” I said.

“Belisle will come up with another train, probably not tomorrow but on the next day. If you write a note, he will take it to Keefer, but it won’t be by the special arrangement.”

“Can Belisle be trusted?”

“Yes. He’s no fondness for O’Reilly, and he’s said to me he suspects some theft, and that reflects badly on him, since he runs the depot. I can ask him to put a note in Keefer’s hand and not trust any intermediary.”

* * *

In the morning, which was Saturday, we found materials to fix the door where it had been forced. O'Reilly seemed to grin at us as we made these crude repairs, which delayed our getting busy for the day. Joseph was going to walk back along the completed track, nominally to deliver a letter to someone in the town of Cornwall, but actually to visually inspect the completed track, and, he told me, to telegraph Keefer a message "IMPORTANT CALCULATIONS FROM CARR WITH BELISLE" so that Keefer would be watching for my short report. In case Belisle were on today's supply train, rather than that of Monday which he had said he planned to ride, Joseph had my note with the estimates of missing spikes.

Today I would first examine the steam winch, which was fitted up with a derrick to make a crane. The boiler had been repaired and it had been brought up by a small shunting engine from Cornwall where it had been on a siding while being repaired.

The man in charge of the crane was Angus Macdonald, and I fully expected a strong Scots accent, but it turned out he had been born and grown up in Canada. He seemed happy to show me the crane. Apparently Belisle had told him one of my duties would be to suggest ways to keep this engine functioning.

I could see the general design of the crane. Actually it was a steam winch with two windlasses, and gears that could engage each of them, one at a time. There were brakes on each of the windlasses to hold them fixed if the engine were not working that particular windlass, or if the steam pressure were insufficient to hold the load. The engine was a single cylinder, but double acting. That is, the steam entered at one end and pushed the piston one way, then entered the other end and pushed it back. There was a flywheel that turned a small gear, which turned a bigger gear, which turned another small gear that was on a pivot so it could be moved to engage a large gear on one or other of the windlass axles, that is, the ones with the ropes on them .

I asked "Is that squared end of the flywheel axle so you can put on a crank to manually turn the winches?"

"Yes. And we need to do it far too often lately," Macdonald replied.

"Is the engine not powerful enough?"

"Oh. The engine is powerful enough, but the boiler don't seem to take the pressure needed to drive it."

"And there's no pressure gauge either," I commented.

"No. Just the safety valve."

As Macdonald said this, I noticed that the safety valve had a rather larger weight ball on it than I would expect.

Let me explain how this worked. The valve was essentially a pipe that came out of the boiler then bent at right angles to turn upward. Into the open top of this pipe a simple stopper kept the steam from escaping. The stopper was held down with a rod that hinged a short way along a bar that was itself hinged to the side of the boiler. At the end of the bar was a ball that provided weight that held the bar down, and hence the stopper in place. That is, until the pressure inside the boiler lifted the stopper.

This sort of safety valve was pretty common, and at first sight looked very ordinary. Essentially a lever held the stopper in place until the force of the steam overcame the weight holding the stopper down. Sometimes a small sliding weight could be moved along the horizontal bar towards or away from the fixed ball. That would let you do a crude measurement of the pressure, since you could adjust the force on the stopper.

But when I made a closer examination, I could see the ball weight had been modified. It had extra material put on it – probably plumbers lead – then painted.

“Do you know if anyone changed the ball weight here?” I asked as innocently as I could.

“No. Been like that since I took over a couple of months ago. The last feller he got scalded when the seam broke here.” He pointed to a seam in the vertical boiler.

I asked carefully “So you don’t think that the ball has had metal added, then been painted?”

Macdonald looked at the ball from several angles, then said “Now you have me look, I think you may be right, in which case we’re running at a good deal more pressure than we should. No wonder she’s been breaking.”

The boiler was being heated, so there was an increasing danger if we were correct in our observations.

“Can I suggest we lift the safety valve and put a piece of wire between the stopper and the seat to let it bleed off, then remove as much of the fire as we can from the boiler, then take a look at the weight?”

“The crew won’t be happy, but I’ll go along with that.”

I attached a piece of thin wire to a broomstick bent so it could be put down the safety-valve pipe while Macdonald lifted the ball with a stick. There was a lot of hissing noise and much steam and the wire kept being blown out of the pipe until the pressure dropped, but eventually we got it in place. Then we quickly shovelled coals out into a wheelbarrow I had wetted with a bucket of water, and threw more water on top when we had the firebox more or less empty. We got some more coals out through the ash bucket under the firebox.

We were then able to unscrew the weight ball, which was held on with a simple machine screw through it into the horizonal bar.

Macdonald pulled out a sheath knife – I had one too thanks to Joseph – and was able to cut into the ball easily.

“You’re right, Mr. Carr. Lead.”

He was about to cut it away, but I said “Let’s weigh it first. I want to work out the pressure at which that valve would have released.”

It was a pity we didn’t have a scale or steelyard, but with a stick and some string we made a sort of balance, with a bucket on each side so it was level. Then we put the ball in one bucket and Macdonald held the balance string while I poured water in the other until we got the bucket with the ball to lift. We took a quart beer bottle and found that we filled it about 5 and a half times. The ball weighed about 14 lbs. The safety valve pipe was 1 and 1/4 inches in diameter. The hinged bar was 18 inches to the center of the weight ball, but the hinge to the stopper rod just 3 inches from the where the bar was hinged on the boiler.

Like I did, you can work out that the area of the safety valve pipe was a little less than 1 and 1/4 square inches. The hinged valve bar had a 6 to 1 ratio, so there was about 85 lbs force on the stopper, or about 69 pounds per square inch pressure to lift it. This was well over the 50 pounds per square inch which was the maximum. In fact, the valve was supposed to pop up at 45 pounds per square inch. Taking a few more minutes, I worked out that the ball, if all iron, would be about 4 and 3/8 inches in diameter. Indeed, when Macdonald cut off the lead, it was about that, and we put it back on after putting grease on its surface to stop it rusting.

“But do you think it will do the job, Mr. Carr? Perhaps the engine isn’t strong enough.”

“We can only try it and see. If it isn’t strong enough, we could perhaps change the gearing, because I cannot see finding a stronger boiler, and a bigger cylinder or an additional one would be difficult to both find and fit. However, I think the easiest solution until we can get a more powerful engine is to add some pulley blocks. But we should work out what the maximum load will be. We don’t want the crane tipping over.”

“It shouldn’t be too much of a problem today. We’re just moving gravel for ballast, so I can arrange smaller loads. It’s when they were doing the big stone blocks for bridges that the boiler blew out.”

Thus we got the crane working, albeit about an hour later than it was supposed to. In the meanwhile, the workers had moved the gravel to ballast the line by wheelbarrow. With the crane lifting a shallow tray and gradually extending the boom away from the waggon it was on, the men could rake gravel out in a relatively smooth ribbon. Then they used big iron poles and pieces of railway tie to lift the rails slightly while other workers poked at the

gravel with pikes to move it around and under the ties, filling any gaps so the line was well supported.

While this was going on, I measured the length of the boom and the distance of the back of the crane platform from the boom bearing, the number of teeth in the gears, and various diameters, minimum and maximum, of the winches etc. Also the approximate diameter of the cylinder. With these measurements, I retired to the edge of the right of way and sat on a boulder and did my calculations. It was clear that stones 3 by 2 by 2 feet would weigh nearly a ton at approximately 150 lbs per cubic foot density. We would need to add some counterweight to the back of the platform to be safe. And the engine, at the working pressure of about 45 pounds per square inch, would not lift them without a pulley to double the lifting force. And, of course, that would halve the lifting speed.

I wrote a note to Belisle to ask for pulley blocks. We'd need several, since the boom winch as well as the hoist would each need one, possibly two. And I suggested some extra cables and shackles that we could use to secure the angle of the boom once that was set by the boom winch.

Going back to the crane, I checked that there were places such cables could be anchored. We'd need the blacksmith to make some more rings on the platform. And I checked that the platform slew rotation could be anchored. If we put some holes in the crane platform and reinforced them, and similarly in the waggon deck, we could drop an iron pin or a rail spike through both holes to stop rotation. That would be quicker and likely more secure than ropes. The crane rode on a circular track on small roller wheels. There was a sort of brake that simply pushed a large block of wood against the deck of the waggon. That could be improved. There were holes for wooden bars like on a ship's capstan so the crane could be rotated or slewed. That wasn't controlled with steam power as yet, and we could possibly rig one of the winches to do this. It rather depended on how often we needed to change the angle of the boom versus turning the crane left or right.

All in all, the crane was clearly a patchwork catch-as-catch-can job, probably cobbled together out of available resources, as was much of our equipment. However, there was no reason we could not improve it, and that was my remit from Keefer.

After I finished the note to Belisle, I wrote up a report to Keefer, then copied it out for myself. I included my calculations as an appendix, keeping for myself the originals made with Macdonald which were a bit untidy. I started my report with a quick summary of findings, a statement of my intent to add pulleys and counterweights and other improvements, and a recommendation that the cylinder be made more powerful or another be added when this was possible.

By now it was late morning. I walked back to the rail-head and found Joseph there talking with the foreman of the supply party. Belisle would not be coming out until Monday, so after discussion, it was decided that Joseph would go back with the supply train and return on Monday morning. He hinted that he had other matters that needed attention of Keefer

or someone of similar authority. Having given Joseph my note for Belisle and my report for Keefer, in addition to the note about the spikes he already had, I said,

“I wish you god-speed, Joseph, and hope that you are not the messenger who is vilified for bringing bad news.”

“I think not, Richard, as Keefer has engaged us to find out things for him. Mind you watch out for yourself. I’d keep out of O’Reilly’s way for a day or so until we have a decision on what Keefer wants to do about things.”

* * *

It proved relatively easy to keep out the way for the rest of the day. It was nearly noon, so I got some food from the cook at the rail-head, then I walked back to our hut. There I gathered a spare shirt, socks and underclothes, wrapped extra paper in oilcloth and put all in my haversack in case I were out for one or more nights. I walked up the right of way to the stream, where there was no-one about, but the canoe was tied to a loop of rope that went around tree branches on either side of the stream so I could pull it over to my side of the water. Indeed, I didn’t need the paddle, but could haul myself over to the other side. I found the survey crew about two miles further up the right of way. Here they were actually doing a check on the original survey of the route, so the calculations were more complicated and Shaw was glad to have me along.

Quite sensibly, he chose to do the measurements, then he and one of the crew would work on the calculations while I and another man carried out the same calculations.

“Mind you watch how Mr. Carr does those check columns. They seem like a good idea, so we should learn the technique,” he said.

Over the course of the afternoon, Shaw and one of the three assistants worked with me, and over the next few days I would work with each of the other two from time to time. At first the assistants showed polite reluctance to have to learn the check columns, but at different points when they caught errors and where some of my ways of organizing the calculations let them increase their speed in getting results, I noticed a grudging approval. Even by the Saturday afternoon, Shaw commented “I do believe we’re doing the reckoning a bit quicker, Mr. Carr. And even if not quicker, I think we’ve fewer mistakes.”

That, for me, was a happy outcome.

* * *

At the end of the day on that Saturday, which was about five o’clock rather than the normal dusk to allow for some recreation, Shaw asked me “Have you plans to go with some of the workers to the tavern in Cornwall?”

"No, Mr. Shaw, I like wine or beer, but mainly with a meal and company, but I'm not much for rowdy drinking, as I suspect will be the case in the tavern. Joseph Lefebvre made sure there was some bread and biscuits and some cheese and a couple of eggs in a tin-lined box. And we have some tea and a kettle. So I'll make a simple meal and get an early night, then walk into Cornwall tomorrow and find a church and then explore the area a little."

"Well, if you'd rather, you can come with me to Long Sault. My wife has family nearby there and there should be a space in the barn if you're not too fussy. We go to the Holy Trinity Church, which is Church of England."

"I'm not very religious, but the school I went to in England followed the Church of England. But will I not be an extra cost to you?"

"If we see a chance to buy some extra food, that will certainly help, but there's always enough."

Thus I came to walk with Shaw to the west about five or six miles. Along the way, we passed a house with the sign of a bakery. There was no outward indication of business, but Shaw knocked and a woman came to the door. Shaw asked if there were any baked goods still for sale, and it turned out there were some remnants of the day's production, so I bought a loaf of bread and some small cakes with currants or raisins in them, which was practically all to be had. It would have to do as my contribution to the communal meals.

I had a very pleasant evening with Shaw, his wife Mabel, her sister Joan and husband Michael and their children. They had a modest farm, but seemed to be prospering in a steady way. On the Sunday morning we went to church, had an enjoyable lunch, and in the late afternoon, Shaw and I walked back to the rail-head.

This evening I found no disturbance of the shed. I made a modest supper of bread and cheese and a couple of the small cakes from the bakery. They were a bit stale, but some tea helped wash them down. Then I arranged that the small window was a fraction open, but secured the door from the inside. I was nervous that my presence was a threat to someone, and that they wanted me gone. As it turned out, I was not disturbed during the night except by insects. Canada seems to have a lot of them, though fortunately for the time of year there were but a few.

* * *

Late Monday afternoon, after I had worked with them all day, I made my way back towards the rail-head with the survey crew, and I was glad to see Joseph there. When we were returned to our hut, and sure nobody was in earshot, he said "Keefer was very pleased with your report on the crane. He's sent this letter, but told me it has nothing about the other matter. He plans to come to discuss that personally with you later in the week. In the meanwhile, we are to pretend nothing is amiss in that regard."

I looked at the letter from Keefer.

Montreal, 12 May 1855

Dear Carr,

Thank you for your clear and well-organized report on
the steam crane. You have my wholehearted support for
the improvements you suggest. Unfortunately, it may
take some time to do anything about the engine power,
but I am asking Belisle to investigate possibilities.
It could be that a second, more powerful, crane is
worth acquiring, and more economical in the long run.

Yours,

S Keefer

Joseph told me Keefer would come on Thursday or Friday, as he had obligations before then. We were to tell nobody, as Keefer would make it a surprise. In the meantime, Joseph was to carry a confidential package to Ottawa, which had only incorporated as a city on January 1 of the year, previously being called Bytown after Col. John By who built the Rideau Canal. My suspicions were that the package related to possible negotiations about links between the Grand Trunk and other railways, of which there were several lines either being built or considered. However, I did not ask Joseph anything about this, simply when he would likely return, which was late Thursday. He also told me that Keefer wanted me to meet Belisle on Tuesday and/or Wednesday when he came up with the supply train in case there were messages for me.

For the rest of the week I worked when I could with the survey crew. It was work I liked, and I found that my interaction with my colleagues was cordial. By Thursday morning, the rails had reached the small stream. They had not been ballasted yet, but at a slow pace the steam crane could be brought up and used to aid the building of the bridge. There were drawings showing stone abutments and a pair of iron girders about 30 feet in length. However, initially we would build a bridge of wooden beams braced by similar beams angling down to the bank and fastened to piles. We would use the steam winch with a crude pile-driver made on-site from a pair of beams that we would grease and fit with a sliding hammer-head filled with stones. The driver would be supported and positioned using cross-beams fastened to it and staked into the ground with large pins like huge tent pegs. Though we could not move the crane to the west side of the stream, we could run a line to the driver so we could haul up the weight and let it drop with one of the winches. On that side of the stream, we could not, unfortunately, use the crane to position the driver quickly, but would have to drag and heave instead.

Once the wooden bridge was in place, we could use it to move materials into place and drive piles for coffer-dams to build the stone abutments. Eventually the rails would be

moved over to the new bridge and the wooden one dismantled. Indeed, the wooden beams would be reused for a similar job later on.

Though I was working with the survey crew if they were not too far up the right of way, I made sure to meet the supply train on both Tuesday and Wednesday. Belisle on these occasions had given me copies of the loading inventories for these and some previous few days. In the evenings I would review these and estimate any differences between the deliveries and track laid. Material seemed to be evaporating, as we suspected.

The survey crew were on hand on Thursday morning to put in stakes where we would drive piles to support the beams for the temporary bridge deck and supports, and to set the angle for some of the latter, since they would be driven into the bank.

Already by 10 o'clock four pointed logs had been driven to the level needed to lay the deck and the driver was being re-positioned. I was on the west side of the stream but was needed to measure from the east side to get a good line of sight. Adam and I were in the canoe and about half way across when I noticed O'Reilly on the crane platform. And the driver beams were leaning outward from the shore. Fortunately, our rope to tug the canoe across had been in the way of the temporary bridge and the shrubs we used to hold it had been cut away. Thus Adam and I were paddling, a skill still new to me, though I was improving and rather enjoyed the way the canoe moved across calm water.

Suddenly, as I watched, O'Reilly hit the winch brake release with the back of a hatchet kept on the crane in case a line needed to be cut.

"Adam! Left!" I yelled and dug in my paddle to push the nose of the canoe away from the likely arc of the falling beams. The driver beams pivoted out from the shore and fell towards us as we were moving away from them. We almost escaped harm, but the very top of one driver beam just caught the gunwale of the canoe a few inches behind Adam, who was in the front of the canoe. It smashed this and sliced through the birch bark and ribbing. Before we knew it, we were in the water, which was about six feet deep. Though never a great one for swimming, I did know how and made for the eastern shore. It seemed Adam also knew how to swim, and we struggled up the bank, dripping as a couple of the men came down to help us.

"Are you all right, Adam?"

"I think that something is wrong with my wrist. The beams hit my paddle." He was holding his left wrist awkwardly.

"Might be broken if the paddle came up fast as the beam hit the boat," said one of the men.

"Did anyone see what happened?" I asked.

Adam looked uncomfortable, then said "I think someone released the brake on the winch."

From the other side of the stream Shaw yelled “I saw you O’Reilly! That was deliberate and I’ll testify in court if I have to.”

Then Adam said “Yes, that’s what I saw, but nobody believes a Mohawk.”

“Since I saw it too, which is why I called out, I believe you,” I said.

“I didn’t see, but I believe you too,” the other man helping us out of the water said quietly.

O’Reilly was now at the top of the bank. “It was an accident. That winch is always breaking down,” he shouted.

“Then why is that hatchet in your hand?” I asked.

Other workers were gathering round now, and there was some murmuring.

“There was nothing wrong with that brake,” Macdonald shouted. “And I would have been beside it if O’Reilly hadn’t told me to put more wood in the boiler and pump in more water for steam.”

“I think someone had better accompany Adam to Cornwall to see if there is a doctor there to examine his wrist and to ask the Sheriff to come and take statements.” I said.

“Maybe better to settle things here and now,” said a loud voice. “I’ve had enough of O’Reilly’s funny business.”

“You want to take me on, McIsaac?” yelled O’Reilly, holding up the hatchet in a threatening way to the man who had called out.

“O’Reilly, put down the hatchet and we’ll all wait for the Sheriff and keep to the law,” I said loudly.

Actually, I was convinced there would be no calm outcome, but was unprepared for what actually did happen. O’Reilly turned and ran eastwards down the side of the track. As he did, I saw that there was a saddled horse tied to a bush a couple of hundred yards away. A couple of men started to follow him tentatively, but clearly were wary of the hatchet and possibly some other weapon. Then McIsaac picked up a long prying bar which the men used to lift and joggle the ties when ballasting. This he ran with and tossed like a javelin. He must have been strong, as it went the 20 yards or so to O’Reilly and a bit beyond. However, either the aim was bad or McIsaac simply wanted to scare O’Reilly into stopping, as it went into the ground to the left of the line a couple of yards in front and to the left of the running man.

This startled O’Reilly, and he moved to the right and stumbled over the rail, tripped, then fell across the track at an angle. There was a loud clunk as his head hit the far rail, and he lay still. Men walked up to him cautiously. I followed them. When we got to him, it was clear

he'd suffered a bad injury as there was blood on the rail. His eyes were wide open. After a few seconds, I bent over and felt for a pulse at his neck. There was none.

"Well, we'll need the Sheriff for sure now, but to act as the coroner. Who will go with Adam to Cornwall?"

"I will," said a man who I recalled was named Jamieson. "I know where the office is and the Sheriff will know where to find a doctor or how to telegraph for one, or else someone who knows about bones."

"All right. Jamieson, isn't it?"

"Yes. Mr. Carr."

"In the meantime, I'll write down a statement from each of the rest of you and from myself. But we'd better leave O'Reilly where he is until the Sheriff has seen him. Can someone make sure that nothing comes down the track."

"I'll put some ties on the track a couple of hundred yards up," said one of the men, as Jamieson and Adam started up the track.

"Perhaps I should make myself scarce," said McIsaac.

"I can't stop you," I said, "but I think the truth is that O'Reilly tried to do harm to Adam and me and the rest of you tried to apprehend him until it could be determined if his actions were deliberate. When he tried to leave, he tripped. The bar you threw did not hit him. It was well away. See where it is lying. Does anyone have a different view of what happened."

"Seems he got what he deserved," said another man.

"All right, then. Can a couple of you get the canoe out of the water along with anything that was in it, including the paddles. They will be evidence of how the driver beams fell. But we should leave the beams there until the Sheriff has seen them. As I said, we should write down a statement from each of us, and I'll witness the signatures and I'll take down the statements for those who cannot write. Leave everything here untouched for now, except for the canoe, and work on bringing up materials for the bridge when your statements are done."

This we did, and given the writing skills of the men, it took about two hours, and then the Sheriff came up on a horse, shortly followed by Keefer on foot from the train that had arrived.

"My God, Carr. What's been going on here?" he asked, even though I was engaged in giving the Sheriff the statements. They were in pencil, given that we didn't generally have pen and ink on the work site.

“Hello, Mr. Keefer,” the Sheriff said. “There’s been an accident and O’Reilly tripped and hit his head on the rail and is dead. One of your Mohawk boys was injured and is being looked at by the fellow in Cornwall who sets bones.”

After about a quarter of an hour the story had been repeated, the statements read and understood, and the Sheriff said “Well, it looks like O’Reilly released the winch brake, seemingly as a deliberate action for which, at the moment, the motive is not known, and as the workers tried to apprehend him, he tripped and died from hitting his head on a rail. Nobody appears to have pushed him or hit him. I will write the report and file it in my role as coroner with the statements. Thank you, Mr. Carr, for keeping the site untouched. The body can be removed and you can remedy the damage to the equipment. I will, however, want the statements of the Mohawk boy and the man who took him to Cornwall. I’ve already told them that. May I ask you, Mr. Carr, to arrange that I receive their statements?”

To this I agreed. Keefer asked for volunteers to remove O’Reilly’s body and two men agreed. The Sheriff was asked who served as undertaker and gave instructions on how to find him. Keefer also asked who knew how to contact O’Reilly’s family, and this question got no response.

“I will put in train enquiries,” Keefer announced. “For the moment, I will put Mr. Carr in charge while we decide who will be the Foreman here. Come, Mr. Carr, we have much to discuss, and it is past the time of the mid-day meal.”

Keefer and I walked back to the supply train, and climbed into the brake waggon where we found some food. Keefer gave the brakeman a note and asked him to get it telegraphed to Montreal.

“That was to ask if there is information on O’Reilly, but also to remove any ears that may hear our conversation. Now, I was very pleased with your report on the steam crane, and I have started enquiries where we may get a more powerful engine or winch, or indeed a complete crane. However, that will take time, so go ahead with the blocks and other improvements you see fit to make.”

“I hope that the incident today has not done damage. But it will be repairable, simply occasion delay.”

“Yes. We always seem to get delays. However, to the other matter of the missing materials. Belisle has confirmed your estimates, as he had his own that are very similar. Unfortunately, O’Reilly seems the likely culprit, and we now cannot interrogate him. Have you any idea who his accomplices may be?”

“Unfortunately not. I have been working mainly with the survey crew, so I have not had time to become familiar with the workers. There are a lot of them, and Joseph has said O’Reilly may have demanded bribes to get and maintain their employ, so some may have been encouraged to help him. Or he may have simply engaged men who were already involved in his scheme.”

“Yes. That is the conundrum. And from what happened today, they are not above violence. Since I need you to undertake other tasks, and we have no idea who might have been working with O’Reilly, I think we had better bring a foreman from outside. I had already been considering this, and asked Belisle if he has any recommendations, and he said he thought there was one man in the depot who could be suitable, but I wish to interview him myself first.”

“That would be most sensible, Mr. Keefer. And shall I continue to work with the survey crew and watch for improvements of the equipment or working methods?”

“Normally, I would say yes. However, your good work, and the way you seem to get on with folk have given me another idea. By the way, I had a note from Shaw. Said at first he worried you might be a clever bookish fellow, but found you were friendly and helpful, and the tricks you taught them have made the work more efficient. Well done.”

“I am most grateful to Mr. Shaw. He was also very hospitable last weekend in inviting me to his sister-in-law’s farm.”

“Now, Carr, because you seem to have an eye for how things may be improved, I think I will have you get an overview of the Grand Trunk’s undertaking in this line from Montreal to Toronto, then have a look at what is happening between Kingston, Ottawa and Montreal. It will mean walking a good part of the right of way. I’d like you to look at the track laid and similar matters on our own works, and the Rideau canal and the Prescott to Bytown and then the Carillon to Grenville.”

“That is an big assignment. I thank you for your confidence in me.”

“You’ve shown ability, young man. Now here is some money to finance this work. I want you to leave as soon as a new foreman has had at least a full day with you to learn what he needs to know. More time if you feel necessary.”

“That is no problem, Mr. Keefer, but I wonder if I may need some measuring equipment with me such as a chain and compass.”

“Of course. I had thought you might take someone as an assistant, but not Mr. Lefebvre. I need him to continue the investigation of the missing materials, and he is very good at quietly finding out things.”

“Yes. Joseph is most capable. Then perhaps, if his injury is not severe, I might take Adam Brant. He has been assisting the survey crew, but will likely not be able to do much work with a broken arm or wrist. However, he should be able to lead a pack horse or hold the end of a measuring chain. And I believe he knows the country. I would not like him to lose his job because of O’Reilly’s wickedness.”

“That is acceptable to me, though you may find some people have a dark view of the Indians and be unwilling to help you or offer you accommodation or services with him as your servant.”

“I will accept that risk. As we will be walking the right of way, I will take a tent and sleeping blankets. Now, do you wish me to receipt the money.”

“That would be proper, and I thank you for suggesting it. And you should count it. I have put in some of our own notes, as currency is still in short supply here in the Province. And a mish-mash of Sterling and the new decimal coins. You had better count what is in the pouch while I eat my lunch, for I have to be away soon.”

There were a couple of meat pies and bottles of beer, and Keefer set to eating while I looked at the money, which indeed was a motley collection of different coinage and notes, including the private notes of the Grand Trunk which were redeemable at the Bank of Montreal. Such was the shortage of coin and bills that businesses issued their own. Some merchants even gave higher value at their own establishment to encourage loyalty of custom.

I copied the list of amounts and noted it “Received, R Carr” and the date and gave this to Keefer, who said,

“You probably saw the note that instructs Grand Trunk employees to supply you with equipment or services as you need, and that you will give them a receipt. I have added that they may telegraph to me if they require confirmation, but I have already sent word to several people that you will be coming along in due course. Of course, you will be more or less on your own up to Ottawa, and you will need to go back and forth to see both the Rideau Canal and the Bytown to Prescott and look over where there is a proposed railway between Brockville and the Ottawa River upstream of Bytown.”

It was an impressive assignment, and in hindsight, I believe that I did it justice, in the journey learning a great deal about Upper Canada and from young Adam Brant a view of the world very different from that of the colonials. I also learned about black-fly and mosquitoes and some of the native methods of trying to deal with these nuisances, though truly they are one of the worst aspects of the Canadas.

Coming “home” to Montreal from Ottawa on the steamboats and Carillon to Grenville railway, I learned that expansion of that line was unlikely in that one of its principals, James Sykes, had been lost on the *SS Arctic* disaster in September 1854, taking with him a large sum of money raised for the railway in England. So much in life hangs, like O’Reilly’s life, on a thread of circumstance.

Geraldine

The northbound express clattered on. I dozed and remembered that early adventure in Canada, then my semi-dream moved on to the times I shared with my first wife, Geraldine.

After my first excursion to the rail-head in 1855, then my perambulations around Upper Canada, it was the penultimate day of June before I got back to Montreal. Adam and I had, after walking the right of way to Toronto, worked our way back along the line to Kingston, from which we followed the Rideau Canal to Ottawa. We walked the Bytown to Prescott route, but took the train back to Ottawa again, where Joseph had telegraphed he would meet us. Ottawa was then a burgeoning settlement on the Ottawa River at the junction with the Rideau River and the Canal, but I doubt that anyone seriously thought at that time it would be chosen for the capital of a new country. In any event, Joseph, Adam and I took the steamboat, train, and steamboat journey from there to Montreal together, after which Adam was to go home to his family near Cornwall for a few days.

Mme Dubé welcomed Joseph and I warmly and told us she would heat water so we could each take a bath and she could wash our clothes. There would be a modest extra charge for these services, but Mme Dubé would, I soon learned, in large measure repay her gain from our absence at meals when we were away with small treats such as biscuits or buns and generous allowances of water for bathing.

There were letters Mme Dubé had placed upon my bed (my room had a locked door, which was a good thing for someone away so much). However, my general state of cleanliness – even though I had bathed when possible, which was less often than I would like – meant that I did not read these letters until after I had bathed.

When I looked at them, I saw from the writing that the first was from my parents, so I opened the second upon which I did not recognize the hand. It was from Geraldine and was quite short. I had written her from Brockville, outlining what I was going to be doing and forecasting I would be home before the 1st of July. Her note – for that is all it was – invited

me to dinner on that day, being a Sunday, assuming I was back. I would send a note in the morning giving my assent.

I then read the letter from my parents. There was a lot of family news and questions about Canada that I would have to answer. I thought I would write that evening, but after dinner, as I sat down to write, I found I was ready for my bed, and did not wake until morning.

While Joseph, Adam and I would normally work on a Saturday, at least for the morning, we were excused on account of our time away. After breakfast, I wrote the note for Geraldine, then put on my walking shoes and a fairly light jacket that I could carry and walked to the address I had for her. I simply put the note in the letter slot. However, the door then opened and it was Geraldine herself.

"Oh, it is you, Richard. Did you not think to knock?"

"I was concerned your uncle and aunt would consider it inappropriate for me to call when I was invited to dinner tomorrow."

"Yes, I suppose that might be the case. At this moment, they have gone to shop for some new furniture. Let me look at your letter."

"It simply accepts the invitation."

"Good. But if you are not at work today, are you at liberty to share some time with me so that we may talk of what we have been doing since our arrival?"

"That would please me, and no doubt there are things to be said that may not be for the ears of your uncle and aunt."

"Precisely. Since it could be looked upon badly for me to come with you now, shall we agree you will collect me at a quarter past one for a walk in the oldest part of the city."

"Certainly. I will return then."

If our conversation seems perfunctory, you must note that I was standing in front of the door of the house, and we were open to public observation. However, I was most pleased that Geraldine wished to converse with me in confidence, though of course our walk would be entirely public, even if our discourse was not audible.

Thus I walked, as had been my intention, up the hill called Mont Royale which gives the city its name. From there I had a good view over the southern arm of the St. Lawrence as it passes the island upon which the city is set. I could see why it was a grand location for transport by water – at least when things were not frozen. That was something I had yet to experience. But for the moment I could see why the location was also a nightmare for a railway engineer, of which I was now one. There was only in the past year a bridge over the western point of the island towards Vaudreuil and Dorion. That was a considerable

working, but the bridge to the east was the one that would challenge us for the next few years.

* * *

I timed my walk so that I could return to collect Geraldine at the agreed time. We walked into the older part of town and found a small establishment to have tea, and then I escorted her back to her accommodation before half-past four. In that time we had a goodly exchange of what we had been doing. I have already mentioned my own activities, so will omit those.

Geraldine had been cordially received by her aunt and uncle. It being almost summer, there was but little chance of a teaching position immediately, though she had made enquiries and started to find out what might be possible. In the meanwhile, her uncle was able to employ her to aid in correspondence and bookkeeping in his supply house, which was a sort of general store but which also made up and shipped orders to customers who might be some distance away.

Geraldine's primary objection to her position was that he presumed that she was "family" and given she lived under his roof was only willing to pay a small allowance, of the level of 10% of what he paid his other staff, albeit they were men. I have always felt that the labour should set the wage, not the gender of the worker, but I am in a minority in holding that opinion, I am certain.

We were already, as I have said, rather fond of each other, and without a formal proposal from either of us found that we were both willing to talk of how we might succeed together. At the moment, I did not have a clear idea how far my salary would go to cover the expenses of living as a married couple. Geraldine was rather unhappy that she would not, in her present circumstances, be able to contribute very much to our prospective household.

During our conversation, I asked if she got to meet other merchants and business persons. The answer was that, as she generally worked at the main counter, she would quite often see customers and occasionally be introduced. I urged her to learn as much as she could about the businesses and persons running them, as it was quite likely that bookkeeping and correspondence were needed elsewhere. Moreover, my experience was that most people were not very good at keeping good records, and many found correspondence tedious. Geraldine had a fine hand, as I had only observed the previous evening, and she was quick-witted.

This line of talk cheered Geraldine greatly. By the end of our walk, we had agreed we would say little of our plans, but learn as much as we could about our new land and its opportunities, with a general intention to marry, if it were feasible, at the end of the year.

* * *

As you may imagine, I would have liked to spend much more of my time with Geraldine, but in the next six months – that is until the end of 1855 – we had the occasion to be together less than a dozen times, and about half of those occasions at the house of her uncle and aunt, Rupert and Anna Ogilvy. I made sure to be a welcome guest by bringing a contribution to the meal. Montreal was becoming more cosmopolitan, and I was able to bring from time to time a bottle of sherry, some pastries, or some fruit or preserves.

My conversation with Geraldine about employment sowed a fruitful seed. Rupert Ogilvy sold cloth among other goods, so a number of seamstresses and dressmakers were among his customers. Geraldine realized some of them spoke very little English. Their talents were with their needles. Geraldine spoke French, but discovered as I had that the local dialect needed some training of the ear. However, by dint of saying she wanted to enquire about a dress or shawl or whatever, she was able to meet and talk with these industrious ladies.

Her idea was at once simple but brilliant. Geraldine knew that she would lose employment once she married me. This, she felt, was not desirable. So she proposed that she could keep books and write up the invoices and receipts for the women who sewed. At first, she used whatever ledger books and paper the women had, but soon recognized that she could, for a fee, offer to provide standardized order books and paper that could be used for letters, invoices or receipts, and if requested could have the business name printed thereon. Remember, this is before carbon paper and rubber stamps came into general availability two decades later. She gradually evolved a fee to establish the minimum necessities for the bookkeeping and other duties, and a schedule of rates for ongoing work. For invoicing and receipts, she offered to carry out the work for a small percentage of the total actually received. This pleased her clients in an age when people sometimes made their living running up debts they had no intention of paying. Geraldine helped several of her clients by insisting she would only work for them if they required payment for materials such as cloth before garments were made, and if they offered a small discount for cash on delivery. My intended wife had a hard nose for business which I could not help but admire.

A further benefit of Geraldine's enterprise was that it could in large measure be conducted outside of business hours, that is, in the evening and weekend. One might think that a clergyman's daughter would eschew working on a Sunday. She put me in my place by noting that Sunday was a parson's busiest workday.

While there was some concern that Geraldine's uncle and aunt might disapprove of her scheme, Rupert was, in fact, pleased at her initiative and decided that he would increase her pay and furthermore allow her two afternoons a week to pursue her own enterprise. He seemed, in fact, intrigued that a young and inexperienced woman should have such courage and will to carry forward her plans.

A consequence of Geraldine's independent business was that it did not have to cease when we married. Moreover, by the time she was with child with George and later Emily, she had acquired a woman partner, Lisette Tremblay, who was of roughly the same age as herself and married to a schoolteacher. Their childbearing fortunately did not overlap in a way to

threaten the business, and Geraldine's contribution to our household fortunes was such that she could cover the entirety of the ongoing expenditure, while I looked after capital outlays and built our savings.

* * *

During this time my work was as peripatetic as ever. Keefer sent me thither and yon to investigate, check calculations, make recommendations, and sometimes, it seemed, to show the Grand Trunk flag. Nevertheless, I learned a great deal, and occasionally Geraldine was able to come with me if the circumstances allowed.

With O'Reilly's death, we were unable to follow the trail of the missing materials, but losses stopped immediately. Several workers came forward to say they were glad they did not have to pay him to keep their job, and the efficiency of that crew actually improved.

In O'Reilly's trunk, found in his hut, a bundle of bank and other notes was found. This was inventoried and on approval of the Sheriff put in a bank account. The other belongings were itemized and stored. A search for family proved fruitless. McIsaac turned out to have known O'Reilly from both being on the same Irish immigrant ship in 1832. I had thought McIsaac to be a Scot, but was mistaken. In any event, O'Reilly was eight years old and McIsaac six and the cholera took all the rest of their respective families. Both were taken in by French Canadian farm families, and it seems O'Reilly was not well-treated, which may explain his character. McIsaac said he had to sleep in the barn and had to work from a young age, but the local priest insisted he learn how to read and write, and the family had been, though not generous, not unfair or cruel.

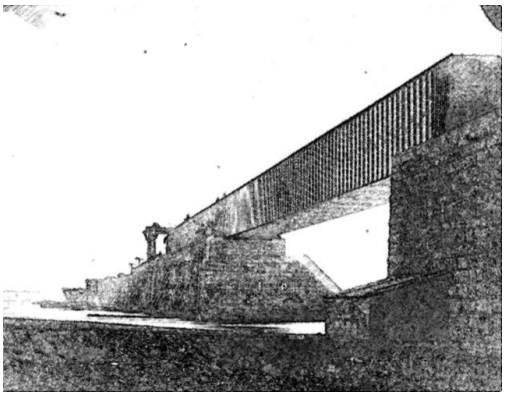
Rumours got out, and no less than three women, two with children in tow, presented themselves as O'Reilly's wife. Joseph and others were kept busy finding out who they were, as no documentary evidence of marriage or paternity was provided, though two of the women were accompanied by other women who said they would swear to the marriages.

It turned out all were residents of brothels, and well over a year after O'Reilly died, he was declared intestate and without heirs. Eventually the money and his effects likely went to the crown under escheat.

* * *

I awoke as the express stopped and heard "Grantham" called. I eased my arm from under Amelia to renew the circulation and lay for a while on my side. The dreams of my early times in Canada seemed to float around the small compartment. It was strange how I remembered so many practicalities. Somehow my thoughts of Geraldine were of the house we purchased and repaired to our own needs, the business she ran, the early years with George. But also I seemed drawn most to remember my work of the time.

The Long Bridge



Amelia stirred and we adjusted to change our cramped position. I could, I supposed, climb to the upper bunk, but truthfully I delighted to be close to this woman I loved so much. The popular cliché is that only the young are permitted to indulge this physical closeness, and definitely not people who have been respectably married for a dozen years. Now more comfortable for a while I started to fall asleep again as the train, from the noise, crossed a bridge.

Ah. The bridge. THE bridge for my money. I already mentioned how Montreal was on an island and that we had bridged the waters to the west on the Kingston route. But the railway would only really be profitable if we also could link to the east and south. Politically, it would be desirable to have the British colonies joined by rail. Thus Moncton, St. John and Halifax should be joined to each other and, via Quebec city or its environs, to Montreal and thence places in Upper Canada. Ferries would still be needed to Charlottetown, and there was a question of how to get to and from Quebec city proper. If a route along the North shore of the St. Lawrence were used, then a crossing would need to be made to the South shore to get to the Maritime provinces, while if a South shore route from Montreal were chosen, Quebec passengers would need to take a ferry from Levis to get to the city itself. The question of a bridge at Quebec had been considered in 1852, but shelved as too expensive. Indeed, there is still no bridge as Amelia and I journey north this All Hallows night of 1895.

The siting of the bridge in Montreal, and in consequence a South shore route, was made by Thomas Keefer, half-brother of my superior at the GTR and also an engineer, who designed the supporting piers of the bridge. While the Railway was to be the user of the bridge, the builder would be the company of Peto, Brassey and Betts, with superstructure design by Robert Stephenson and Alexander McKenzie Ross. Stephenson's father George was, of course, the man who led us into the railway age with the Stockton to Darlington railway and the locomotive *Rocket* which, even if it were not the first to use it, brought the steam

blast that gives trains their familiar "choo-choo" sound. That steam blast drew air through the firebox, making possible continuous train operation, rather than cycles to build pressure then run along the tracks.

The many interests in the bridge meant that there were plenty of discussions and exchanges. Mr. Samuel Keefer wished me involved quite frequently in checking calculations. Even if the GTR were not directly paying for materials, he was worried that miscalculations would lead to the bankruptcy of the builders before the completion of the bridge. Thus I was constantly estimating how much of each major material would be needed.

James Hodges was the chief project engineer. He had been at the SER, but I do not think our times there overlapped. However, when I later was introduced to him, he said he had been told to watch out for me in a letter from Cudworth. This must have contained a positive appraisal of my abilities, as I later received some assignments that were directed from Hodges and were of profit to me. Hodges has described in detail the struggles we had to build the bridge in his fine book *Construction of the Great Victoria Bridge in Canada*.

My own role in the bridge was, as I said, to make and check calculations. This didn't prevent me, of course, from taking an interest in other things going on.

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One of the more interesting aspects of the bridge project was the tools and machinery that had to be developed to allow the work to be done. I was not yet in Montreal when some of these were constructed.

To move materials and men to the middle of the river where the work would be executed, barges would be needed, along with tugs to move them against the swift movement of the current of the St. Lawrence. Ultimately 25 barges were built, which had to be able to hold 100 tons of stone when laden but still only draw at most 4 feet of water and not roll so much that workers were imperilled. These barges were 92 feet long and 22 feet in beam.

To move them, two steam tugs, the *Beaver* and *Musk Rat* were constructed, approximately 150 feet by 26 feet, drawing only 3 feet, but with paddle wheels over 23 feet in diameter powered by condensing engines of 30 inch bore and 10 foot stroke. These were significant enterprises in the Colony.

Hodges had made some rough drawings for a steam traveller, that is a gantry riding upon a pair of widely set tracks that delineated a sorting yard for stone. The traveller could move up and down the rails and a jenny upon the traveller could move from side to side. All was powered by a steam engine upon the traveller. From the jenny, hoisting gear was suspended and heavy stone blocks could be moved about the sorting area and readied for loading onto the barges as required.

Hodges had approached contractors in England who, at least according to their assertions, built and experimented with such a device. However, when it arrived and was set up, its strength was so feeble that it was set aside for scrap. Fortunately, Hodges had shown copies of the same drawings to Benjamin Chaffey, a local contractor and self-taught engineer. He very quickly constructed a rough, crude traveller which to everyone's astonishment worked extremely well and became much loved of the workers and engineers for its simplicity of use and reliability. This was being finished as I arrived in 1855, so I did not see the construction of it.

A bit later, the same Mr. Chaffey came up with a steam derrick that could be used to position the stones for the piers. One such derrick was eventually built upon a barge. Mr. Hodges called them "the most perfect derrick", a sentiment with which I must concur.

Chaffey illustrated a lot of what was best about the local engineering staff. They were masters at improvisation with the materials at hand. When building track for the railways, they could find timber within short distances of the right of way and turn them into the most fantastic trellises and other structures. In England we would scoff at such objects, mainly because they would not last long and were at risk of burning in a fire, for example, one of the many forest fires in the Colony. However, the Canadian engineers knew that the main chance was to get the railway running and generating revenue, at which point the wood improvisations could be replaced by more permanent stone and iron construction.

In the case of the Bridge, besides Mr. Chaffey's lifting mechanisms, we initially used specially designed coffer-dams to build the piers, but later adopted the local approach of simple crib-work that made use of nearby wood and stone crudely put together.

For the Victoria Bridge, we could use improvised tools for the construction, but wanted a structure that would last without too heavy a maintenance cost. Thus the piers were going to be made to last and to withstand ice and logs that would shove against them. Moreover, the track would live in a wrought iron tube held high enough that ships could navigate underneath.

* * *

I was largely relieved of any responsibility for the 25 tubes of rectangular cross section that would be placed on the built-up shore abutments and 24 limestone clad piers. The parts for the tubes were prefabricated in in England, brought across the Atlantic by ship and moved to the place of construction by barge or later by means of rails on the partial bridge.

In 1855 we had only hand-made quantities of steel for expensive blades or similar high-value small items. Large scale steel was still over a decade away. Cast iron could possibly be used, but was known to become brittle in the cold. Stephenson had designed the cast iron Dee Bridge that collapsed in 1847. So the choice was wrought iron, laboriously hammered into relatively small pieces, but sometimes with two hammers, each wielded by a team of

three men. They would literally pound the red hot metal into the desired shape. A scene of hell, of which I had witnessed only a much smaller version for making coupling chains.

The resulting pieces of the tube were plates, angle irons or T-irons pre-punched with holes for the rivets. Generally the engineers were well-satisfied with the accuracy of the manufacture, and the tubes came together well, albeit with a huge amount of labour to bolt the pieces through sufficient holes to line up a section, then to rivet them securely using hot iron rivets and much hammering, at that time by muscle alone. Finally the bolts were replaced by rivets and the next section started.

To avoid sagging in the middle of a span, wooden structures or trellises were built. Then jacks or wedges were used to adjust the level of the floor of the tubes as they were built to avoid sagging or other deformation in the final bridge tube. Each tube rested on one pier or abutment and rolled on rollers at the other end to allow for expansion and contraction with temperature.

While the iron work interested me, and occasionally I was called in to check the rate of delivery and use of plates, bars and rivets, it was the support piers that sent me more calculation work. They had integral starlings, that is surrounding bulwarks, also called cutwaters, to protect against the current of around 8 miles per hour, much faster than ducks can swim. The water was 21 feet deep, and, of course, it froze to thick ice in winter, and in the thaw carried blocks of ice and tree trunks from the Ottawa Valley lumber industry. Therefore the front face of the starling was angled at about 45 degrees, in what is sometimes called a stark-water. There was a lot of limestone that would have to be quarried, tailored and placed. When I worked out the volume of stone, the amount surprised me - about 3 million cubic feet taken from nearby Pointe Claire. Over a beer with my fellow railwaymen, someone said it must be more stone than the great pyramid. That comment stuck in my mind and eventually I was able to learn that the Giza pyramid was about 460 feet high and 755 feet on a side, with a volume of around 87 million cubic feet. Indeed you can compute the volume as the base length times the base width times the height all over 3. The claims of my drinking friend were much exaggerated, but seem to have acquired a popular currency, even to this day.

Of course, the pyramid did not have to sit in fast moving water, often very cold and freezing. After the piers were built, the joints between the stone blocks were pointed, then grout forced into the gaps from the inside. We could not afford to have water get in cracks then freeze. I therefore had another calculation for the volume of grout to be prepared for each pier.

The Victoria Bridge was first used by a freight train on December 12, 1859, but was officially opened by the Prince of Wales on August 25, 1860. Geraldine and I were there, of course, almost within arm's reach of the Prince, since we were considered part of the official entourage due to my work.

That was definitely a special day.

* * *

Remembering those celebrations I came out of my reverie as the northbound express slowed for a grade. It was strange that Geraldine did not figure much in those memories in the way that Amelia surely would. Nor had I thought much of the men injured or killed. We lost 26 dead out of over 3000, which was considered a good safety record for the time. I know not if that included those who died of the cholera in 1854 before I arrived in Montreal. At that time, of course, the cholera was everywhere. Dr. John Snow was in that very year active in getting the handle of the Broad Street pump in Soho, London, removed, thereby showing that contaminated water was the agency of transmission. However, it was not for some years that his theory was confirmed, and his brilliant use of numbers and graphs in support of the public health vindicated.

Amelia rolled against me and murmured something that included my name. I did not hear precisely, but her tone was affectionate. Possibly she did not wake. Though lying beside her, I fell to thinking of the early years with Geraldine.

My Family

As I dozed beside Amelia, I thought back to my first marriage. 1855 had proved busy. Keefer sent me out on a number of missions to check surveys and sniff out problems. Indeed, I got to see quite a lot of what used to be called Upper Canada. Since the Bytown to Prescott Railway ran its first train on Christmas Day 1854, I had been able to get to what was now called Ottawa. In fact, the railway changed its name during 1855 to use Ottawa rather than Bytown. It was not until the last day of 1857 that Queen Victoria decided to make Ottawa the capital of Canada. When I visited there first in the summer of 1855 it was a rough and tumble lumber town. Not for some years did it grow into a town that could truly present the face of a nation.

However, Colonel John By's canal was of great interest to my engineer's brain. His calculations achieved an accuracy of 6 inches in 120 miles in the water levels that are critical to running a canal without pumped water. He correctly forecast that steamboats would need larger lock widths than traditional English canals.

Several railways were busy laying track across both Upper and Lower Canada, and I was here, there and everywhere. Before the Bridge opened, I had ridden the whole way from Sarnia in the west to Fraserville in the east, though most people call the latter town Rivière du Loup. And there were many side journeys and detours related to my engineering work as well as to my curiosity.

So I was not much in Montreal and Mme Dubé saw less of Joseph and me than she or we would like. Moreover, Geraldine was left a more or less unmarried widow for much of the year 1855. Nonetheless, we announced our intentions late in that year, and were married on the 5th of January 1856 in the old Christ Church cathedral not long before it burned down.

It being the middle of winter, we went by sleigh to the church. The ceremony was small. Joseph stood up for me, and several colleagues were there too. Geraldine was supported by her aunt and uncle, and Lisette Tremblay was her witness. We repaired afterwards to a nearby establishment that was something between a café and an inn, where we gave our few guests a good lunch and they gave us their good wishes.

I gave Geraldine a small wedding ring and a new coat as presents. Our friends gave us a number of welcome items for our household, which was most generous of them and materially aided our comfort. Aunt and Uncle Ogilvy gave us a small painting of a scene of early Quebec by the artist Krieghoff. At the time, I thought it an odd present, but it rests now on the wall of my office, and has, I believe, much appreciated in value since the artist has become a favourite of those who dictate fashion. At the time we married, he was becoming known and rather popular, and was one of the few members of his profession to be able to live by his canvases, but even now not considered a grand master.

In preparation for marriage, we had arranged the rental of a small house not too far from the railway depot in the western part of the town. There was much building going on as Montreal was expanding vigorously. Soon we would purchase land and erect one of the new dwellings. For now we had a modest house, and found ourselves there in the late Saturday afternoon. It was already getting dark, so I lit a pair of candles. We could have used oil lamps, but kerosene – the English say paraffin – was not then available, and whale oil was, on balance, more expensive.

We had engaged a local girl to come in and ensure the stove was fed sufficient wood to keep the house warm. At this stage, we did not have running water in the house, and still used chamber pots. Indoor toilets were the preserve of the affluent.

To our pleasant surprise there was a pot of venison stew keeping warm on the edge of the stove where it would not burn. We both enjoyed a hearty bowl, then simply went to bed, Geraldine preceding me. Given the cold, though the stove-pipe passed through our bedroom, we both maintained our nightgowns throughout.

Both of us were inexperienced in the manner of conjugal activities, but with humour and fumbling we achieved a consummation. I do not recall that Geraldine was either particularly pained or excited on the first occasion. In the morning, we tried again and found ourselves happy to be joined and able to share affection and laughter while united. I think that was a pattern maintained throughout our whole marriage. That is, there was respect, comfort and affection, and a love that was more than adequate to a lifelong partnership. But having known and loved Amelia, there was not the overarching passion that hits like waters tumbling over Niagara. However, we did not, at least I did not, know what was absent. I believe it was the same for Geraldine.

Our activities in the first month were sufficient that our son George was born at the beginning of October of 1856. The GTR had opened the line as far as Brockville in

November 1855, then Oshawa to Toronto in August, and when George was hardly 3 weeks old, I had to attend the opening of the full line of Montreal to Toronto.

Despite being mother to an infant, Geraldine, in partnership with Lisette, maintained her bookkeeping work. Indeed, it was sufficiently lucrative that they could engage local women and girls to handle their everyday household tasks.

My own activities were also progressing. At that time there were many engineering and railway works under way in Canada. Ottawa had its link to the GTR via Prescott, coming into the town at the Rideau River near where that river tumbles into the Ottawa River. Indeed, the railway was terminating for some time to the eastern side of the Rideau before a bridge was completed. However, the times were such that a rival company decided to run rails from Brockville via Smiths Falls to Perth, Almonte, Arnprior and the Ottawa River at Sand Point, primarily to exploit the lumber of the Ottawa Valley. Indeed this company opened the first tunnel in the Canadas on May 16, 1860. This ran 1/3 of a mile under the town of Brockville to reach the harbour on the St. Lawrence. The Central Canada Railway joined this line from Carleton Place to the Lebreton Flats on the western side of Ottawa.

Would it surprise you that I was quietly asked to review the calculations of this tunnel, which was more or less carved through the rock using black powder? Since there would be houses and roads above the tunnel, it was necessary to ensure the bearing capability of the rock once the tunnel had been excavated, and my calculations were along these lines. Some parts of the tunnel needed to be reinforced, but in the section where the rock was solid, there was simply excavation.

A lesser problem was to make sure the gradient of the tunnel would drain the inevitable water that would enter from fissures in the rock and from the upper end of the 1700 foot tunnel. Work on this project had started before I arrived in Montreal, and it lasted until after the Victoria Bridge was in use, even if not officially opened.

That I was for much of the year out of Montreal may explain why George was our only child until Geraldine found she was with child again in the summer of 1858. Unfortunately, she bore a little girl prematurely in January of 1859. The child lived but 5 days. Besides the anguish of a lost child, Geraldine then endured some form of fever that stayed with her on and off until the summer. Indeed, when we took George with us to the opening of the Victoria Bridge, I believe it was the first day when I saw Geraldine smile since Emily had died.

At this time we were living in our own house. Geraldine and I had managed between our arrival – that is before our marriage – and the Spring of 1858 to save enough to buy a building lot and materials for a modest house. As an engineer, it was simple for me to design it, and I knew who would give good materials at a fair price. Even better, I had got to know many men who could do the work informally, that is, an hour here and an hour there, when their regular tasks allowed or when there was one of the many strikes or other

interruptions. I was also able to work myself, and even Geraldine undertook very light jobs, as well as ensuring food and drink to keep a positive mood among those working.

The memory of this was warm and cosy. Geraldine had been a good partner. Our life together was almost always calm, cordial and respectful. Of course, I was away from home a great deal. On the other hand, communications around the world were improving through this period from our arrival in Canada in 1855 to the start of the American Civil War in 1861. We were very excited by the news that a transatlantic cable had passed a telegraphic message in August 1858, then disappointed when the cable failed a few weeks later. It would be almost a decade before a reliable telegraph was established. However, the Royal Mail steamships and the railways allowed that a letter from England to us or vice-versa rarely took over a month from posting to arrive.

In some ways, this time was fraught with senseless competition for some routes with neglect of others. I have talked of both the Prescott-Bytown and Brockville-Ottawa lines. And even within one project, there were conflicts of will.

For example, the Brockville and Ottawa Railway wanted to end their line at Brockville with a tunnel – the one I already mentioned – through the hill on which the town was generally situated. Samuel Keefer (I will surmise as Inspector of Railways rather than as Engineer for the Grand Trunk) was opposed to this, favouring a route that passed around the hill to the west and ran along the shore to the harbour. However, the Railway went ahead, and the contractors got into financial difficulty. After much wrangling – and several years delay – the tunnel was finished. And as I said, it was the first tunnel in Canada, with part having man-made support and part born by the raw Canadian rock. However, Keefer, through other engineers and contractors, let it be known that I would provide honest estimates of the work and the risks, and I was able to earn some good fees to augment my GTR salary. As I was not greedy, other commissions of a similar nature came my way.

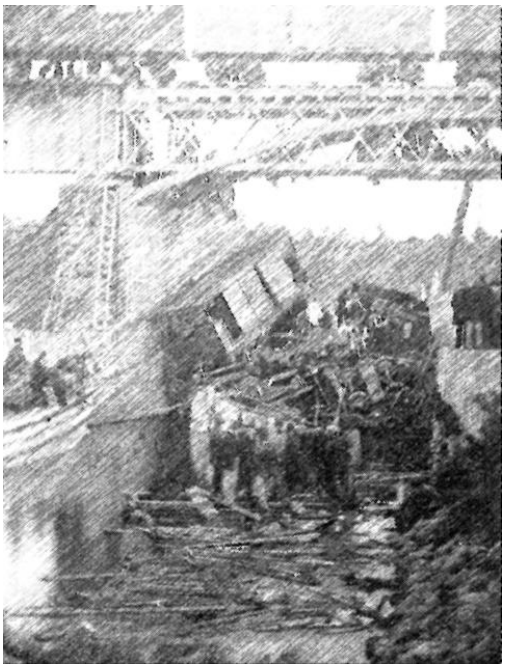
Perhaps I should mention that the tunnel was first used on the very last day of 1860. Though that tunnel has served well, it was designed – to my mind at least – too small. At only 14 feet 9 inches high and 14 feet wide at the maximum, the 1721 feet of its length required small locomotives. When the town hall was built over the tunnel its apparent chimneys were, in fact, ventilation shafts to exhaust smoke from the tunnel. Nevertheless, as Canada's first tunnel, it reflected well on the enterprise of the young country.

Clearly I found the work that came my way interesting. More than interesting, it was exciting. Whenever I came home, Geraldine made sure I had comfort and rest. Remember that much of my time was spent in wilderness and construction sites, amid dirt, wet, insects, and vulgar people, mostly men, but sometimes quite rough and often disreputable women. The authorities would sometimes prosecute the operators of bawdy houses for vagrancy, but generally would tolerate them unless there was excessively disorderly behaviour. Some of the men I knew would frequent such places. Perhaps they thought me fastidious when I excused myself from accompanying them so that I could review the day's work and calculations.

In a way I was fastidious. My parents and relatives in Tunbridge had provided me a life of security and, in large measure, comfort. It was a life where hearth and home, along with their denizens, were central to all I experienced. But once I was an apprentice, I saw the behaviour and difficulties of men and women who did not have the guidance and company of parents and siblings. Thus I was, from time to time, a witness to poverty and disease, particularly diseases spread by depravity. Some will argue this as an absence of moral fortitude. I have neither the inclination nor means to say, but I knew that consorting with street women cost many men their health and took bread from the mouths of those who depended on them. I like pleasure, and sensual pleasure too, but in a well-ordered family. Nor do I believe in being a miser, but I had taken to heart the maxim of Mr. Micawber from *David Copperfield* and always spent less than my income. Perhaps these reservations make me dull company.

Of course, though I was for much of my time away from home, when I was able to be resident in Montreal I had Geraldine's company, including in bed at night. From the perspective of the night sleeper to Edinburgh, I fear we were rather formal with each other, even as we passed the nights side by side. Nevertheless, I believe there was contentment, and at the time would have said happiness, though with Amelia my emotions seem much more intense.

The American War Between the States



Geraldine and I were really just beginning to feel more or less settled when events outside our home gave rise to general anxiety.

We had been doing well, and much happened with the railways in the Province of Canada in 1860. Besides the Victoria Bridge, the GTR opened the section from Quebec to Rivière du Loup. As I mentioned, the Brockville Tunnel was opened. And there were many other starts and progresses.

Later that year we had news, of course, that Mr. Abraham Lincoln had won the Presidency in the United States, and that he was unsympathetic to slavery. In the west of Canada – that is near Chatham and Windsor – I had seen a number of escaped slaves making new lives for themselves. For myself, and I suspect most other people who came to Canada from the British Isles, the Negroes were somehow outside our comprehension. We knew the fact of slavery but not its meaning. We read about cruelty, but did not see its face.

Thus, when the news of the firing on Fort Sumter appeared in our newspapers a few days after April 12, 1861, most of us did not appreciate what was going on. Indeed, I did not manage to get even a cursory appreciation of the differences between the factions until some time later.

* * *

It was late in 1861 that we learned that the Union warship, the *USS San Jacinto*, had stopped the *Royal Mail Ship Trent* in the West Indies and removed two Confederate diplomats on their way to England and France. The American newspapers that came in on the railway boisterously celebrated this for the most part, though there were one or two commentaries that British removal of American seamen from ships was a factor in the Revolutionary War and practically started the War of 1812.

More worrisome was the possibility that Her Majesty's government would take the action as an act of war by the Northern states. Suddenly it became imperative to consider how the British colonies in North America would be defended if the Americans decided it was in their interest to attack us.

As of March 1861, Britain had only 2,100 regular troops in Nova Scotia, and 2,200 in the rest of Canada, while the Union Army could probably field 50 times that number. What was only much later revealed and is still largely overlooked is that gunpowder needs saltpetre, and the Americans obtained nearly all their saltpetre from British India. Not that that would stop them immediately, of course. However, they also were buying prodigious numbers of rifles and muskets as well as bullets and percussion caps. Indeed, in the first 18 months of the conflict, the Union obtained nearly 50 million percussion caps from Britain.

The British government rather quickly blocked the saltpetre and arms supplies, and similarly raced to organize transport of men and materiel to the Colonies. Within the Province, we started to mobilize and organize, though the result was not immediately impressive. I myself registered and later was a volunteer in the Engineers Corps that was formed among the Militia.

Later there were serious concerns about raids by either Union regulars chasing Confederate saboteurs back into Canada or Fenians seeking to do damage in support of Irish independence, and this led particularly to the formation of the Grand Trunk Rifles. This was intended perhaps as a force to protect the railway, but they served even after the Civil War ended because the Fenians were still active, and were used beyond the protection of communications and railway property.

The winter of 1861-1862 was particularly nervous. The British government was struggling to get men and arms to us in Canada, but the lateness of the season meant that they were landed in Halifax and then St. John. Those destined to Canada were disembarked in St. John, New Brunswick, and undertook a winter march from there to the railway at Fraserville on the St. Lawrence. The trek was sometimes within sight of the border with Maine, and it is not clear if the Union government knew of the troop movement. In any event, I was peripherally involved with ensuring sufficient rolling stock and locomotive power were available for their transport to Montreal. We also tried to arrange that there was enough food and fuel for the men's comfort.

Some officers who landed in Halifax took a more unorthodox route by donning civilian garb and papering over the labels of their luggage so it would not be recognized. Then they embarked for Boston by steamer and took the train to Montreal.

After all these reinforcements arrived, however, the immediate crisis that the apprehension of the *Trent* caused had blown over, as the Confederate commissioners were released quietly on the second day of 1862 and many feathers were smoothed down, though a good deal of wariness prevailed.

* * *

Early in 1862, the naval and engineering communities were intrigued by what has become known as the Battle of Hampton Roads between the *CSS Virginia* (formerly *USS Merrimack)* and John Ericsson's *USS Monitor*. These two very different ironclads fought to a draw in early March, but it was immediately clear that the design of armed ships would henceforth be changed. Ericsson was already known to engineers for his screw propulsion ideas. His rotating turret offered a very different approach to housing large guns from the more traditional gun ports on the *Virginia*.

By the time 1862 came to an end, the focus of attention became the horrific violence of the large battles between the Blue and the Grey. Britain, France and their dependencies, along with other countries, walked the delicate and narrow ledge of neutrality. This was no theoretical exercise for us. Montreal was particularly the focus of agents for both sides. Indeed, late in the war the Confederates staged the raid on St. Albans from our city. After the final surrender, Montreal and Lennoxville were even home to Jefferson Davis until beyond the time Geraldine and I had returned to England.

Within the city, it was common to see about town men – I don't know if any women agents were involved – whose occupation was unclear, but whose function was strongly suspected. The authorities were mainly concerned to prevent them doing violence to each other or to the local population, and also to avoid any smell of Canadian collusion with one side or the other.

Since we were sharing a border and considerable trade with the Northern states, and some of the trade involved materials of use for military purposes, there was always an awkwardness and a looking over the shoulder in case saboteurs were near. Because the Civil War was fought with supplies carried on railways, there was some interest in what the GTR could supply, though I do not know of any major shipments of materials or of any rolling stock sent south.

Almost all the locomotives on the North American railways at the time were 4-4-0 pattern with a spark arrester chimney and a cow catcher on the front. We used the same style of engine, indeed called it an American pattern. It seemed no other design was approved for North America, though of course there were a few of different design, though mostly used for yard and shunting work.

The War slowed down direct progress of development of the railways, but the threat of the Americans and their well-known view that it was their *manifest destiny* to govern the whole of North America pushed the squabbling British colonies together into the Confederation. Even if the original pact only involved the Canadas, New Brunswick and Nova Scotia, other territories soon joined and by the early 1870s only Newfoundland was still under rule from Westminster. By then, of course, my family and I were no longer living in the Western hemisphere.

On the other hand, by the time we did return to England, the *Great Eastern* had established a working transatlantic cable in 1866. The world was definitely shrinking.

* * *

These advances were not a steady progression. Interspersed with progress were a scattering of disasters, and I was unable to avoid being involved in some of them, though fortunately neither as victim nor culprit.

Our competitors, the Great Western Railway (the one in Canada, not Brunel's enterprise), had suffered a serious accident in 1857. On March 12 of that year, the afternoon train from Toronto was due at Hamilton at 6:15. As it approached its destination, it had to cross the Desjardins Canal leading from Lake Ontario to Dundas. Unfortunately, as has been determined later, an axle on the locomotive broke as it was crossing the bridge over the canal. The bridge was timber, which was certainly strong enough in total to easily bear the train, but individual timbers were crushed by the locomotive falling from its wheels on the broken axle. Further timbers broke and the locomotive fell the nearly 60 feet to the ice on the canal. It appears the engineer jumped from the locomotive, but broke his neck on the 18 inches of ice. The locomotive and tender actually went through the ice, but the baggage car that followed hit the tender and slid along the ice without overturning. The next car – the first passenger waggon – unfortunately overturned and landed on its roof and was, in the language of the news reporters, "crushed to atoms". The next car fell on its end, and stayed that way.

The Hamilton depot was only about half a mile or so away, and a railway worker noticed that the train suddenly disappeared and raised the alarm. However, given the steep sides of the canal gorge at that point, it was not easy for rescuers to get to the wreck. In the end, of just over 100 passengers and crew, 59 died and 18 were injured. Among the dead was Samuel Zimmerman, reputedly the richest man in Upper Canada.

I was far away from that disaster, but was not so fortunate when the Grand Trunk suffered what has so far been the worst railway disaster in the Canadas on June 29, 1864. This occurred just after one in the morning near St. Hilaire, about 30 miles east of Montreal where the track crossed the Richelieu River. We had a rule – indeed it was part of a statute – that all trains were to stop before the swing bridge and only proceed when signalled that the track was clear. However, this particular train with about 450 German and Polish immigrants had a recently hired engineer who, along with the conductor, failed to see the

signal and apparently was unaware he had to stop in any event. A tug pulling five barges was transiting the bridge location, so the bridge was swung open. The locomotive, tender, two baggage and eleven passenger cars all ended up in the river. Indeed, they landed on the last barge, which may have reduced the loss of life due to drowning and may have broken the fall of some of the rolling stock.

One of the first newspaper reports, in the *Irish Canadian*, gave an incorrect name for the engineer, and blamed him entirely, furthermore saying he had been in the job for 11 years. While I feel the engineer bore some blame, on October 5, 1864, a grand jury stated "...the Grand Jury consider it their duty to reiterate their solemn conviction that the Grand Trunk Railway Company of Canada are mainly responsible for the melancholy catastrophe of the 29th of June last, and the great destruction of life caused thereat, and that they trust the said Company will be found amenable to tribunal for their shameful treatment of their numerous passengers on that occasion."

I am not sure that this vilification of the Railway is entirely justified. Before the crash we were already looking for ways to create a safer crossing of the river. And there was intense pressure on the Company to provide transport and communications in the Province of Canada, often to the extent that corners were cut. However, it was our train and our bridge.

The Company were at some pains that I not be asked to testify. I had been, on the night of the disaster, sleeping in a small room at St. Hilaire station on the east side of the Richelieu River. My reason for being there was to consider the costs that traversing the Richelieu imposed on our operations. Was it reasonable in the long run to build a bridge that was high enough for navigation on the river? Could the operation of the swing bridge be better managed? That the Railway was already looking at the situation should be considered to its credit, but there was concern that my investigations could be construed as having advance knowledge of the disaster.

At the time of the wreck, I was asleep. I was woken by a commotion some 30 minutes after it happened, when one of the station agents who had attended to the train banged on the door of the room I was in. I managed to open the door and call to him before he ran off to the bridge, which was about two miles away. I told him to telegraph to all stations on both sides of the river with both a warning and a request for urgent assistance. Was the telegraph still working to the other side of the Richelieu, or had the accident torn down the line? Fortunately, in this area, there would be another route for messages, but the rescue effort would be more effective if we had our telegraph fully working.

"Also set extra lamps to stop any train coming from the east as soon as you can. I know that you want to get to the bridge, but we need the telegraph manned and we need someone to be able to set signals and run messages."

In my haste, I overlooked that the man was French speaking, so I repeated the order in that language. He responded that he had several children who could be used to run messages since they knew the area well. As there were now townsfolk walking up the track toward

the bridge, he went out and managed to find someone he knew to go to his house and ask the children to come. Apparently, that person took the initiative to rouse others to come also.

Realizing that I might be the most senior Railway employee, I made a list of things we would likely need at the bridge. Lanterns, ladders, ropes, axes and similar tools, for sure. Then I gathered a satchel with paper and pencils – we would need to take names of passengers, alive or dead, injured or whole.

I asked the agent if there were another telegraphist, and arranged that he would be woken and, if possible, sent to the bridge with a portable key and battery so we could send messages directly from there.

Soon I was trotting down the track as fast as I could. I had hoped that there might be a hand-car I could use, and possibly some tools. As it was, I managed to grab a lantern, an axe, a spade, a bucket and a rope before I left the station. Indeed, these items were in the room where I had been sleeping.

At the bridge, it was clear the whole train had gone over the edge. It landed on the last of the five barges, which may have saved some lives, but it was difficult in the dark to make out what was what among the wreckage.

Some local people were milling about, and there were a number of people huddled near the bridge abutment. I called out "Is anyone here a Railway employee?" but got no reply. I walked over to the huddled people and saw that they were wet.

"Were you passengers on the train?" I asked, holding up my lantern.

One man stood up and walked towards me. In halting English he said.

"Yes. We are mostly German and Polish immigrants. We speak little English."

"Perhaps you can help me translate?" I suggested.

"I will try."

There were now a couple of boats in the water, and I could see at least one other downstream, possibly from the steam tug. It would not want to risk getting its paddles fouled with the debris, nor to hit anyone floating.

Seeing a man I believed to be a local with a couple of children, I asked in French if he were from St. Hilaire.

"Oui, Je suis un marchand la bas."

I asked if he could arrange for his children to be runners for messages to the station when we had need of them, and if he could take down the names of the people who were out of

the water. He said he could do that, but that we would also need to record the dead and the injured.

In French, I agreed that we should set up an area for the dead, as they would need to be identified. Cautiously, I noted to him – his name was Robichaud – that we should get several people to guard the dead and injured so they were not robbed. A disaster attracts vultures of more than one sort.

"Oui. Il nous faut. Ah. Ici ma femme. Elle peut l'organiser."

Indeed, I gave the stalwart Mme Robichaud some paper and pencils and she immediately called out to someone she knew. With these two women, soon to be joined by a couple of youths from the town, we set up an area where bodies could be laid out and watched.

We sent one of the Robichaud children with a note to the station to arrange for hot drink and some food, as eventually we would need some sustenance and it would take time to arrange.

Pretty soon I had also organized a place quite close to the tracks for the injured. I wanted to close the bridge, but would need to see what damage there might be. But the bridge would let us quickly move survivors or the dead to Montreal where there were better facilities. Also I could ascertain if the track was properly signaled to stop any eastbound train.

I wanted badly to get to the task of rescuing anyone still alive. While I was making the necessary arrangements on the shore, a couple more boats came up and several men from the town along with wives and children were arriving. There were people on the other shore as well. Calling out to anyone who wanted to help to gather round, I pointed out that we needed people to assist with identifying and recording who was alive, dead or injured, as well as keeping them safe from further injury or robbery. I said that we had already sent a messenger to try to arrange food and drink, and that I would be glad if some people would take charge of that. Several women and girls stepped forward.

The wreck was the next concern, and I asked those willing to help to be extremely cautious, as it was likely unstable and our actions could occasion further injury, including to those trying to help. We called over one of the boats, and arranged to get a rope across to the pier on which the swing bridge pivoted. Having a rope tied to each side just above the water meant boats could haul themselves back and forth. I arranged another on the other side of the wreck, then two more where the ends were in the hands of strong men with a boat tied between. This allowed the boat to be pulled into a position next to the wreck. In this fashion we were able to get next to some of the damaged cars. I also arranged a message to be carried to the other side to ensure eastbound trains were halted.

Ladders were arriving, but the danger was in their placement where they might move unstable wreckage. I tried to insist that the top end of such ladders was tied off to minimize movement if the footing should shift.

I took a lantern and descended the first ladder we secured. I did not have to go down far, as the last waggon was on top. It was badly banged about. Bending down I could see through a gap that there was someone lying close by the opening wearing typical heavy trousers and a plaid shirt, even though it was summertime. I could just reach the back of the shirt, so I grabbed it and managed to slide the person towards me. In the weak light, I could make out very little, but that the face looked smooth. A youth. I hung the lamp on a piece of wood that stuck out, and reached my arms round under the shoulders to try to pull them out. I got a shock when I joined my hands, as the front of the chest was soft. A woman! Too late to be polite, I hauled with almost all my strength and got her outside. People had found a door and put ropes on its corners and lowered it. With a man who had descended the ladder we got the woman on the door and called out to haul her up. I think she was dead, but there was little time to be curious, as I heard a child's voice saying something I could not understand. Holding my lamp carefully, I could see a child's face, and he or she crawled towards me. Carefully we got the child out and on the back of my helper, whoever he was, and he carried the child up.

We repeated similar tasks a number of times. Though I was reluctant to stop, I realized that there were now plenty of men willing to help, but few places to actually get at the wreck, so I ascended the ladder and arranged one of the men to rotate teams of two men every 10 to 15 minutes so nobody got too tired. In any event, there was need for people to pass tools, hoist the makeshift stretchers, and move the survivors or bodies to appropriate locations.

Slowly we started to probe the wreck and found several survivors, including some uninjured but trapped until we could free them. It was slow work, and we were far from finished as the sun came up. Then boats were able to retrieve a number of bodies in the water. By now a train from Montreal had arrived with some doctors and nurses and once ferried across the river, they looked to the injured we had extracted. There was also a small group of soldiers. I asked if a pair could be used to guard the dead in rotation, as I was still concerned that bodies might be robbed. Immigrants would almost certainly carry their money, what little they might have, on their person. If they had dependants, I was determined they would get any resources we could salvage.

It was late afternoon when I saw Keefer on the other side of the bridge. He called out to me to ask if the bridge could be closed. I had by then had a chance to look at the condition of the rails, and damage was likely minor enough that with care we could pass a train even before making repairs. The ends of the rails were a bit bent an inch or so where the cars had twisted as they fell. There was also debris that might be high enough to foul the bottom of the bridge, but it would likely clear. I shouted over that we should try very slowly, as the bridge would serve to aid our communications as well as providing a platform to lift some of the debris if not too heavy.

Slowly we pivoted the swing bridge and were able to secure it so a train might pass very, very slowly. I walked over the bridge and Keefer said,

"A bad business, Carr. You look done in. Did you see it happen?"

I related what I knew, and Keefer told me to gather my things and come back to take the next train to Montreal. He would arrange that there was someone to continue the rescue and repair work. I was to go home and rest and stay out of the way. It took me a little while to realize that Keefer was nervous that my work in St. Hilaire might be taken as an admission that the GTR knew what might happen.

This was not true, of course, even though ultimately we should have ensured the driver of the train knew he must stop. My work at St Hilaire had nothing to do with expecting a disaster. Good engineering considers all risks and puts them in an order to deal with them. However, newspapers would certainly present things very differently. I was becoming old enough to know that reality and perception are very different.

Return To England

When the Canadian colonies decided on Confederation, Geraldine and I both thought that we would stay in the new Dominion to pursue our fortune. However, I had been carrying on a correspondence with several of the engineers of the companies building underground railways in London, as well as some civil engineers working on large sewer projects in British cities. A small pamphlet that I had written for the GTR on calculating the strength and other properties of both the ground and supports for tunnels had been found useful. There were two offers of consulting arrangements, with hints that others could be available.

While I liked the life in Canada, I felt that I would probably enjoy being closer to the scientific developments going on in England and elsewhere on that side of the Atlantic. I did not have access to the scientific society journals easily in Montreal. And the ending of the American Civil War had coincided with some coolness towards the British North American colonies both in the United States – because of perceived bias towards the South – and in London because the colonies were thought expensive to the Crown. Several trade agreements were annulled, a number of Canadians and Maritimers moved to the United States where they thought opportunities were better, and immigration sagged.

After some conversations, Geraldine and I decided we would move back to England. My family, such as it was, was still in Tunbridge, and we planned to find a house near there. The celebrations of Confederation were, of course, a great moment of optimism and joy, as well as a statement to the Americans that there was a different point of view among those who lived to their north. However, we had already made our plans by that point, and had arranged the sale of our modest house. While we did not make a huge profit, we were not unhappy with the price agreed.

We took trains to New York, which we had never seen before, thence after a few days as tourists boarded Inman's *City of Paris* where we had booked a first class cabin. When we arrived in Tunbridge in early November of 1867, my parents, now looking elderly but still spry, welcomed us warmly, especially their grandson George. We boarded with them initially, but by the second day in Tunbridge were already looking at property.

We were most fortunate that my father, wanting to spend time with me, came with Geraldine and I while mother and one of my sisters looked after George. We had seen an advertisement in a local newspaper about a house in Tunbridge Wells. When we viewed it, we were quite pleased with its space and general possibilities, but its price was more than we had to spend. My father, seizing the occasion, suggested that he lend us the extra we needed at the going rate of interest, since he then would know where his capital was deposited. I knew from conversations with him when I was a boy that he would never give one child something that another would not get. This would be a formal loan, but we would avoid going cap in hand to a bank manager.

The house was the end part of a row of quite formal houses built in the 1830s and 1840s. Like many others it had a modest portico entering into a small hallway that led through the house to the back, with a stairway on one side. On the ground floor at the front was a sitting room. Mid-way along the corridor was the kitchen from which there was access to the larder and scullery. In the latter there was a coal or coke stove that could heat water via pipes in the back of the firebox. This was likely added after the building was constructed, as there were newish sinks with hot and cold running water in the scullery and the bathroom above it. The kitchen had a gas stove, for which I was thankful, not liking the effort of having to light a fire before boiling water for tea.

At the rear of the ground floor was a large drawing room which could also serve for dining. Indeed I later arranged a hatch from the scullery through to this room. There were glassed doors, now sometimes called French doors, to the outside from this drawing room. As it was an end house, there was a door to the outside from the scullery, and attached to the house was a small out-building. This had two doors, one of which revealed a water-closet, the other a bin for coal. The garden behind had a small shed, no doubt for potting and for tool storage. I eventually simplified the garden and made this a small workshop.

Up the stairs on the first level were three bedrooms, a bathroom and a water closet. Then on the upper floor were two rooms, one quite large with a skylight, and both with doors into a sloping part of the roof which could be used for storage. We eventually used the smaller room as a bedroom for the cook we eventually employed, and reserved the larger as accommodation for maids, though by the time we employed two of them, one had married and lived out. As we had but George, who decided he wished the smallest bedroom – it was in point of fact rather cosy – Geraldine took the back bedroom as her personal sitting room, except in times when we had guests. Later, even before she became ill and we used it as her sick room, she decided to use it for her bedroom. For some reason, while in Montreal we had always slept together, on our return to England she found herself unsettled at night and often unable to sleep. Thus, the front bedroom, which was large and

overlooked the street, and normally the master bedroom, devolved to me. Well, I suppose I was the master, but I seem always to have associated a master bedroom with both man and wife.

After discussion, we also decided that the general habit of the middle classes in England to use the front reception room as a "sitting" room that was reserved for special guests – notably, it would seem, the vicar but hardly anyone else – did not suit us. Our conversations while in Canada had led us to the conclusion that I could probably do well by offering my services as a professional consulting engineer, rather than take employ with just one company. While I could have engaged an office or offices elsewhere, I felt it prudent to start modestly and minimize my expenses. Over the years, I never found the need to expand to other premises for my own work, though we did later rent space for my assistants, one of whom became a partner.

* * *

Though it was not really ready for our particular needs, Geraldine and I decided to move as soon as possible. We had become accustomed to being in our own house. Though Geraldine was a quiet woman, she still had a firm inner core. There was iron in her constitution, even if it were not immediately revealed. She wanted to maintain a warm relationship with my family, particularly my parents, and there is nought so dangerous as two strong women trying to get along in one kitchen.

It was also important for me to have a place where I could array my notes and books when I needed to prepare a report. We had already decided that I would take over the front reception room for my office, and indeed we always referred to it as the "office", even though the term "study" was becoming common at the time.

Our challenge was to furnish the house in a short space of time. Geraldine and I had a brief argument about second-hand furniture, which I lost. Or, rather, she made me see the wisdom of not bringing any second-hand soft furnishings into the house, since they may carry with them bedbugs, mice, or other vermin. We did, however, decide to seek hard furniture and bedsteads from dealers in used furniture, as I will explain below.

First, however, Geraldine said we must clean the house from top to bottom and ensure we left no corners where dirt and corruption could conceal themselves. We took possession of our house on Thursday November 21, 1867, and renamed it *Sans Pareil* after the locomotive of Timothy Hackworth. Though not as successful a locomotive as Stephenson's *Rocket* we thought the name had the right tenor for our residence. It was shortly after eleven o'clock that morning that we put the key in the front door. George was with us, full of energy as any ten-year-old will be, wanting to see the new house. As we were about to step inside, a young woman came up us and asked

"Excuse me, Sir, Madam, but might you be the new owners?"

With some suspicion, I answered that we were.

“Well, sir, my name is Hilda Brown. I am seeking work as a housemaid.”

I looked to Geraldine, who responded, “We may be interested. Do you have references?”

The young woman was not much more than a girl, and plainly dressed. Her expression became very sombre at this question.

“No Ma’am. My father died when I was but eight years old, and Mother and I and my younger brother have been in the Tunbridge Workhouse since then.”

Geraldine asked, “And how old are you now?”

“I’ll be fifteen in January, Ma’am.”

I joined in the interview by asking, “Would the Master or the Matron of the Workhouse give a good account of you?”

At this the girl brightened a bit. “I think so, sir. I’ve never been in any trouble. It was Matron who told me there were new owners taking over this house today.”

“Then we will make enquiries. May we contact you at the Workhouse?” I said, wondering what string of connections had communicated that our house had new owners to the Matron.

“Yes, sir. The Matron gave me these clothes to go looking for employment, but I’m still living there.”

“Then I will send you a note there with our decision, either positive or negative.” I said, then added, “Oh. Can you read and write?”

“Yes sir. Not long words, but plain writing. And I can reckon money and keep a tally.”

“All right, Hilda. Thank you for approaching us.”

We now proceeded inside the house to verify all was in order. The rooms were all empty, and Geraldine wanted them left that way while we did the cleaning. I checked the coal shed, and found the previous owners had left only enough for a few hours of burning. I had fortunately brought a notepad and pencil, and wrote a note for a coal merchant who had an office near the West Station and sent George off to deliver it, giving him sixpence for his own amusement, but telling him to be back within the hour with a reply. The note asked for a delivery of 5 cwt of coal and 2 cwt of coke in the morning, and to put it in the shed which we would leave open if we were not there.

“If that girl gets a good report, I can use her right away, even though we have arranged some temporary help for cleaning tomorrow and Saturday.” Geraldine said.

Given that request, which knowing my wife I took for an edict, we arranged that I would go that very day to the Workhouse to ask about Hilda. When George returned we would have lunch in a café as a treat, then George and I would go to Tunbridge, leaving Geraldine to peruse the shops for suitable material for curtains and for soft furnishings and possibly a sofa and some chairs. While we waited for George to return, we were not idle, but measured all the windows and doors. There were no curtains or blinds, so we would need to arrange those quite quickly to ensure our privacy. I also realized we would need some candles, though the gas was on. Our solicitor – Jessop – had said he would arrange to transfer the gas account to our name.

George came back, panting and out of breath – he must have run all the way – and said the coal would be here early. We unlocked the coal shed – there was a key hanging on a hook by the back door – then closed the house and went down to the High Street to find lunch. George enjoyed that. Indeed, Geraldine and I had, in the course of our return to England, spent more time together and with George than at any other time in our life together. It could sometimes be a little chaotic as well as close, but I found I mostly enjoyed such times.

After lunch, and in spite of the expense, George and I took a hansom cab to the Tunbridge Workhouse. Geraldine would take the train back to Tunbridge. (There were still over two years before the spelling changed to Tonbridge.)

The Matron of the workhouse did not impress me as entirely business-like, but she was warm in her approval of Hilda, saying that so many of her charges were lazy or stupid. Indeed, she had allowed Hilda to pursue an initiative to find work in service. Success would, of course, reduce the burden on the workhouse to feed and clothe the girl. I wrote a note to Hilda, outlining the terms of employment, asking her to present herself at the house at nine o'clock the next morning, and including two shillings. This was more than enough for her expenses to get to our house in Tunbridge Wells. I made sure to mention the two shillings in my note to reduce the temptation for the Matron to appropriate all or part of it.

As the weather was not inclement, we walked back to my parents' house in Tunbridge and began a list of things I should need to do in the next few days. In particular, I arranged with my mother to borrow a palliasse and some bedding for Hilda, as she would be staying in the house.

I also talked to my mother about food, and together we made a list of some staple items and sent the housemaid to buy them. We would send Hilda out in the morning to get anything we omitted. I also asked to borrow some bowls and utensils, but my mother gave me some old or chipped items she was planning to discard. These would keep us going until we had the household established.

Just before closing time, I went to my father's ironmongery and had extra keys made. Eventually I should change the locks, but for now we needed to make sure we had more than the two keys I was given for each of the front and back doors. I made a mental record

to check the locks of the internal doors. Many had locks, but I saw no keys. I should also duplicate the coal-shed key in case of loss.

It was dark when Geraldine came in, and I had started to become anxious. However, it turned out her day had been productive. She had found a mercer with some good quality materials for curtains who had an arrangement to get goods made up into curtains and such. Geraldine was somewhat concerned that she did not get my approval, but had arranged for curtains for the three bedrooms, two living rooms, and the kitchen window. The scullery window and others would, for the moment, have to wait.

The next two days were a hurricane of activity. We arose very early on the Friday and got to our house before eight o'clock. George was offered the opportunity to stay home, but insisted on coming. We needed a porter and some assistance to bring various bedding and utensils and some other items with us, but it was worthwhile. As soon as we were in the house, I set light to the few coals I had found the previous day and already put in the stove in the scullery. November is cold, and we would need heat and hot water.

We had previously engaged three char ladies and an odd-job man to assist for two days. They arrived at eight o'clock, bringing their brooms and mops as instructed. The odd-job man had a wooden toolbox and stepladder. Though I had checked that all the windows with sashes opened prior to concluding the purchase of the house, I had him verify the state of the window fastenings and the cords, and also to re-secure or change as necessary the curtain rails. Given that George was available, I assigned him as a messenger and assistant to the odd-job man. On a list, I also set them to check all the gas lights, to verify that there was hot water, and to check all the taps and water-closet mechanisms, including the main water valve.

Geraldine supervised the char ladies and Hilda, who arrived by half-past eight. The char ladies were put one on each floor, and Hilda and Geraldine worked out what would be needed in the way of supplies for the next few days. They decided to go out together to find suitable purveyors of groceries, baked goods and meat, and to set up accounts for the household, over which Hilda was surprised to learn she would be in charge, at least for a probationary period.

As they left, the coal arrived. The coal shed had a partition in the bin, and it was fairly obvious which side the coke went. I planned to burn coke in the scullery stove as it would generate less smoke and the chimney would be less likely to get sooty and need sweeping. That reminded me, and I put on the list for the odd-job man to inspect the chimneys, at the same time warning George he was NOT to get close to the fireplaces when Mr. Rickett, which was the name of the odd-job man, was doing this. I realized in any case I would want to get in the sweep to ensure we did not get a chimney fire.

The coal man, Mr. Cox, was most happy that I had offered cash on delivery, but a little surprised I had him sign a receipt for me when I paid him. I got a rather grubby receipt back from his coal-dusted hands, but he said as he handed it to me, "I'm much obliged to

you, Mr. Carr. So many folk keep me waiting for payment, often 'til the coal is long since burnt."

I replied, "Mr. Cox, you will have my custom and quick payment as long as you deliver fair weight and promptly. I look forward to mutually satisfactory trade. Good day to you, Mr. Cox."

He touched his cap and led his horse away to the next delivery, and I turned to my next task, which was to see about furniture. While I waited for Geraldine, I looked to see what was urgently needed and what could wait. Also I put the rather dented kettle we had brought with us onto the little stove in the scullery, in fact opening the lid of the stove and putting the kettle over the hole to get more direct heat. I could have used the gas stove, but I knew there would be a steady demand for water for tea.

The three char women managed to remove a lot of dust and dirt. Rickett made a place in the back yard so we could burn any rubbish or dust, which he would do tomorrow. I soon realized I did not need to supervise the team of workers closely, and went to survey my office. I decided that I would have to add some bookshelves, though likely they would be used to hold boxes of papers, and I would need a good desk. The gas lighting was currently on either side of the mantelpiece. I would need to arrange that there be a light near my desk. On the desk, I thought I would use an oil lamp. Paraffin, what the Americans called kerosene, was becoming available and the lamps were portable so I could position one where I needed it.

Besides a desk, I would need a chair. In fact several chairs if I had clients or assistants. Perhaps a modest sized desk and hard chair, for working, and an armchair with a side table to hold materials so I could sit beside the fireplace when reading. Ah. The fireplace. Perhaps I could put in a small stove and avoid open flame. It might even allow for me to heat water for tea. I would watch for such a possibility, but clearly the lighting and desk were critical.

I measured the bay window again with my measuring tape. Geraldine already had the window measurements, but I now wanted the floor plan. The central window was four feet across, as were each of the angled sides. Each triangular side of the bay was three feet deep and 32 inches across. Leaving room for curtains, I could have a desk, say, six feet wide by four foot across and put it perpendicular to the window and get good light across the working surface. I could sit facing the door of the room, and when the curtains were open this would also allow me to see anyone coming to the front door of the house. The fireplace would be behind me to my right. I could put an armchair on the other side of the fireplace where there would be light from the left-hand gas mantle, or I could use an oil lamp on a side-table which I would want anyway. Yes. The layout was coming.

Carpets? Yes we would need some carpet to make the place quieter and cosier. I hoped my capital would not be too taxed by all these expenditures. I pulled out my tape again and made some notes on how big the carpet should be, then went to the other rooms and did likewise. In the process I made small sketches of each room. Geraldine and I had already

decided to try the new Linoleum made by the company of Mr. Frederick Walton for the bathroom and water-closet. Indeed, she had already written to the company to find who was a local agent.

As I returned to the main floor, Geraldine and Hilda were coming in. Hilda had a big smile on her face, and it was clear she was happy. After greeting them I said, "The kettle should be boiling. Shall we have a cup of tea?"

This was very agreeable, and when the tea was in the pot we called the workers and George to the kitchen, though there was no place to sit yet. Geraldine enquired as to the state of work, and was pleased with what she heard. As tea was drunk and pasties Geraldine and Hilda had found at the baker were eaten as lunch, we arranged that Hilda would, with the charlady cleaning the main floor, clear and clean an area of the kitchen and set up her bed there for now. We tasked her with keeping a very low fire in the scullery stove, which could be used for boiling a kettle and small cooking tasks. There was the gas stove in the kitchen itself, but the sink was in the scullery, and it had a draining board, so was immediately useful. It was clear a good kitchen work table was urgently needed, as well as some chairs.

Geraldine and Hilda had made arrangements with a baker, a grocer, a greengrocer and a butcher so that there were accounts for the household. Geraldine had also visited a stationers and purchased a notebook and a couple of pencils. The cleaners and Rickett went back to work, and Geraldine showed Hilda how she wanted the household accounts recorded in the notebook. Geraldine also took a small masonry jar and put ten shillings in coins in it, and started a petty cash page in the notebook and showed Hilda this page. There was one cupboard on the kitchen wall that had a lock and even a key. Geraldine found a string and tied the key to it and gave it to Hilda.

"That's the only key for now – do look after it. When next you go shopping, you can get two others made so Mr. Carr and I each have one. Mr. Carr's family runs that ironmongers we passed on the High Street where you can get the key cut. And here are front and back door keys."

Hilda looked quite surprised at this confidence given to her. Then she said, "Oh. Mr. Carr, I only spent a few pence on the train fare, so I've still got over 1 and 6 left. Shall I add it to the petty cash?"

I replied, "No. I think we should treat that as a starting bonus. But I'll be sorry if you spend it unwisely, though treating yourself to tea and cake might not be considered so."

The grin Hilda showed at this, and her profuse thanks told me this decision was one that would ensure loyal service, and indeed to this day she has been a great support.

After a short discussion of how Hilda should continue her day – she would set up her temporary bed, keep the fire going in the scullery and take notes of anything that might be needed, as well as undertake any tasks she felt would be useful and not be in the way of the others – Geraldine, George and I left to shop for furniture and carpets.

This expedition took us to the north end of town, as the second-hand merchants were more in the working class area along the Camden Road, so we had about a mile to walk. We soon found a shop packed with odds and ends of furniture. The proprietor was an aged man with a strong Kentish accent – and I'm a Kentish man myself though I'd been in the Canadas for a while – and he remembered a table and chairs he had under a pile of other goods.

After he and his assistant moved a great many objects and stirred up a lot of dust, there was indeed a quite nice dining table, though the finish was very dirty. There were no less than eight chairs, which would be very helpful were we to entertain. I would need to arrange some refinishing of the table, though it might not need a full sanding down to bare wood. We asked that he set this table and chairs aside while we considered other items.

While we had decided not to have any old mattresses or soft furnishings, we would need a bed for Hilda and one each for any other staff we engaged, as well as a double bed for ourselves and a single for George. (Not much later, we got a second double bed for the room Geraldine used for her own sitting room, which would be used for guests.) We soon found two single bed frames made of iron, and a double made of oak and rather heavy. However, all of them came apart, so would be relatively easy to transport.

Did the shop have a kitchen table or a desk? We found a modest kitchen table. It was a little smaller than either Geraldine or I would like, but we decided to take it. There were six chairs that would be suitable as well.

"But we don't need six." Geraldine protested.

"We could use one or two in the bedrooms." I pointed out.

"Yes. And we need some wardrobes too."

I hadn't thought of that. We found two that were, if not very attractive, at least serviceable for the time being. Geraldine was, I had always been happy to note, practical about our resources. She would, in time as she had in Canada, replace the interim items with ones that were better suited to our taste and needs. But for now, we wanted to have a workable home, and the furniture was needed.

George, who might have got bored and troublesome, was in fact a great help in pointing out potential items of interest. We had not seen a desk at all, but George saw a quite fine plain oak table and also a pair of small chests with drawers that looked like they would fit under the table. Indeed they did. We decided to use one of the chests with the table for my desk, and the other would go in the attic room for Hilda or another servant. Instead of a wardrobe, I would have some hooks installed with hangers for her. The chests even had one drawer which locked, though one of the locks seemed broken. Possibly we could replace the broken lock.

I also noticed two small side tables, but said little about them. They would be useful for my office or the living room.

It was time to move on, so I asked what the shopkeeper wanted for all the items. He took out a pencil and a piece of paper and scribbled for a few moments and said a figure that was higher than I wanted to pay, but not outrageous.

I decided that I would not bargain on price, but on some extras.

“Can you deliver the items tomorrow?” I asked.

“Certainly sir.”

“Well, I am willing to pay your price if the delivery is included and if you also include those two small tables.”

The shopkeeper thought for a moment, then said, “That would be agreeable, sir, as you and your wife have purchased a goodly number of items.”

We agreed that the delivery would take place in the morning, and I paid a deposit of two pounds and got a receipt with a list of items, the balance to be paid on delivery. I had fortunately been to the bank the previous day and ensured I had plenty of cash for purchases.

We wanted to look at carpets and armchairs. George was starting to look a little bored. He asked, “Mother. Father. Can I go and look at the goods station and watch the shunting? I could take the train back to Tunbridge from High Brooms.”

Geraldine looked anxious, but knowing how I liked trains, I said, “Do you have enough money for the train plus for an emergency?”

“For the train, I still have the sixpence you gave me, but nothing else.”

I gave him another sixpence and told him to put it in a separate pocket. It was now approaching three o’clock and at this time of year would be dark soon after four. So I said, “You may watch the trains until it starts to get dark, but you must be at High Brooms before it is dark. Don’t disappoint us, or we will not give our consent another time.”

George thanked us and ran off. It was time he started to become more independent. Many his age were already at work, which was entirely too early in their lives.

Geraldine and I looked in several shops for armchairs and carpets, but were not entirely happy. My family would know other merchants, and this was our first day looking. We tumbled upon a shop that sold bedding, and ended up purchasing a minimal collection of four single and two double sheets, four pillows, four pillowcases, two single mattresses and one double mattress, along with two double and four single blankets. We still had some bedding from Canada along with some quilts of the patchwork kind which seemed popular in North America but less so in England. However, these were in trunks we had yet to transport and unpack.

By now it was getting dark, so I hailed a hansom cab to take us to the station. When we got to High Brooms, I saw George on the platform, so hailed him and he joined us. I think he was glad to see us. Despite the urge for independence, he still leaned towards the security that came with family.

The deliveries and other activities put in train this day led to a busy week for Geraldine around the new house. We wanted to redecorate some of the rooms before putting too much furniture in them. With one of my cousins who was in the paint and wallpaper business we selected some brightly patterned papers for my office and the master bedroom. We would use the back bedroom for a few weeks, and I would manage to work in the large attic room until my office was ready.

We would need to get Rickett to remove the fashionable green – but very dark – papers in those rooms. I would warn him to be cautious, as the colouring was likely Scheele's green and made with arsenic. There was some controversy concerning its safety. My own view is that one should not chance health to fashion, and we had in any case become used to brighter levels of light in Canada.

Consultancy

As it turned out, I would not be around for the redecoration work. There were opportunities for me in my profession, and I was required to meet with both directors and engineers of the Metropolitan Railway and the Metropolitan District Railway. I will follow others and use simply District Railway for the latter. They were allied companies, with common directors and both had John Fowler as Chief Engineer, who was possibly the highest paid engineer in the world.

The Met was already operating services from Hammersmith to Moorgate by this time, but it would be another year before the District line opened. My task, as usual, would be to verify calculations and possibly make recommendations. In this case, my employ was prompted by grumblings that some buildings were being damaged due to subsidence as earth settled after the cuttings had been made. Indeed, the Met was not truly underground. It was built by making cuttings then covering them with a deck. A lot of the line was open, which was necessary for the operation of the steam locomotives. Here these were usually the A class locomotives attributed to John Fowler, but for which he specified some relatively minor improvements on a design already being made by Beyer Peacock of Manchester for a Spanish railway. They condensed the steam from the cylinders so the “tunnels” were not full of vapour.

A resurvey of the track and its roof had been done, and I would be sent the data for this and the original survey. The work I would have to do would be dull and tedious, but I would be well-rewarded.

When I was in London, the Met paid for my accommodation and expenses. However, my evenings were my own, and I had written to David Kirkaldy, a Scottish engineer who had

just a year before established a materials testing business in Southwark. He had invited me to see his workshop, and to there I repaired at the end of a meeting. It was almost six o'clock when I arrived. Kirkaldy was most generous in showing me his testing frame, which was nearly 50 feet in length. I was particularly happy to see a plaque above his door that said "Facts not Opinions".

After we had looked over the works, we went to a nearby public house and enjoyed a simple but satisfying meal. Our conversation about measurement and testing continued and we agreed on a plan that he would send me short notes of measurements and I would collate and organize them into useful tables and graphs that we could use and possibly eventually publish as handbooks for engineers. Also I would endeavour to inform him of any testing and measurement work that could be of value to him.

We talked rather a long time, and then it took a while to find a hansom cab to take me back to my hotel on the north side of the river. My driver took the quite recent Westminster Bridge of Thomas Page. His other bridge – the Chelsea or Victoria Bridge – would have meant a longer route and a toll. It was past midnight when I was finally to bed, and gave thanks that on the morrow I had no meetings.

What I did have to do, however, was take a train to Sheffield, where I was to meet Henry Bessemer. I had written to him to ask about the strength properties of his new mild steel. His answer was not illuminating, but he invited me to come to talk with him. Thus the purpose of my visit. My train left mid-morning from St. Pancras and I had to change in Rotherham Masbrough, it being three more years until there were direct trains to Sheffield. Indeed, the connection led me southward from Rotherham to Sheffield.

I met Bessemer at his office late in the afternoon. He had apparently heard about my work in Canada on various calculations. We talked about different projects and ideas and eventually he admitted that he was still uncertain about the actual properties of his mild steel. It appeared that one needed to burn off all the silicon and carbon in molten cast iron then add back carbon and some manganese. This had been discovered by Robert Mushet, who died shortly thereafter. Bessemer apparently gave Mushet's daughter a pension, whether from gratitude or to inhibit legal action is not clear to me.

However, if there were phosphorous in the iron, then the product was very low grade. Consequently, only low-phosphorous ore could be used to make the cast iron, and there were but few sources of such ore. About ten years later, Sidney Thomas found that replacing fire clay with dolomite or limestone as the liner of the converter ladle would capture the phosphorous in slag that could even be processed and sold as a form of agricultural fertilizer while the steel produced was of better quality.

It was clear to me, however, that there was not yet good information about the properties of the mild steel from the Bessemer process, and that testing and recording of the results would be needed. For the moment, each batch needed testing or else the process of manufacture had to become much more carefully executed.

Given the commercial sensitivities, Bessemer decided that he would offer me a small contingency fee to tabulate measurements on his products. I managed to convince him to include Kirkaldy in the enterprise if I could persuade the Scot to do so. This came to pass as Kirkaldy was happy to have first-hand measurements on the mild steel and between us we built up a gradual understanding of its behaviour. Our involvement was fortuitous as to its timing, as Bessemer's efforts, alongside those related to the competing open hearth process, dropped the price of material for buildings, bridges and machinery considerably.

As time went on, we learned that Bessemer mild steel often suffered from some brittleness. We suspected this was worsened by cold. The competing open hearth approach of William Siemens and Pierre-Émile Martin was possibly capable of producing better mild steel, and Martin had just won a Gold Medal for his products at the Grand Exhibition of 1867 in Paris. When I wrote to Kirkaldy, I asked him if he knew how to get some samples that he could test and compare to those Bessemer would supply. Over time, both products would be used widely, but it was important to know what steel was used in each application.

Thus it was that I was away the better part of two weeks, returning home when December was already over a week old. The journey had been tiring, the weather was seasonal, thereby cold and wet, and I had not slept as well as I would like, ending up with a cold. In short, I came home rather miserable.

* * *

Given my cold, Geraldine put me to bed in the back bedroom on my own, using George's bed. She resurrected the palliasse that Hilda had used and installed it in George's room. He found this amusing, and in fact said he preferred it. I used this palliasse in a bed similar to those on the trans-Atlantic ships that Rickett and I built, putting drawers underneath. Indeed that was a present we made for George, giving him the drawings for it for the upcoming Christmas, and building it over the month of January.

It took me until nearly the Solstice to recover from my cold. I had, however, been able after a few days to get up and see my "office" and found the work done altogether satisfactory. Furthermore, Geraldine had found a shop with some leather covered chairs and a sofa. One of these, a wing-back design, she bought for my office. Two others and a sofa were put with the dining table and some of the chairs in the living room. We put other dining room chairs in my office and in the attic, from where they could be brought back if required.

Linoleum had been installed in the bathroom and WC. In the kitchen the tiles had been re-grouted where necessary and a couple of cracked ones replaced. Rickett had done that, and similarly checked the scullery. Rickett was kept on for 1 day per week, and we discussed whether to get another maid or cook or .... In the event, Geraldine said she did not want the upset of another person in the house at the moment, and rather liked cooking.

She also had found some good fire screens, which would prevent damage to the carpets and floor and lower the risk of a fire starting. I was immensely proud of her and wondered what

would please her most as a present from me for Christmas. I would have to think more on that.

* * *

I felt the slowing of the northbound train and the gradual application of the brakes and we came gently to a halt. I wondered where we were. The carriage had a small lamp so we could avoid falling, and I thought of rising to look out, then heard someone say something about Doncaster. Yes. That made sense.

I had been dreaming of our first Christmas back in England after our sojourn in Montreal. Ah. The time I had to try to find a good present for Geraldine.

It had surprised me how much emotion had been generated by the sharing of setting up our new household and our new house. *Sans Pareil* was a good name for the house and for the feeling I remember having then. Perhaps it was that Geraldine and I had lived a lot of our married life rather independently. How strange that through this night on the train to Edinburgh I kept visiting the way I feel now about Amelia and how I recall feeling about Geraldine.

I realize my feelings for Geraldine were warm and steady and honest but lacked the sense of compulsion that I have felt with Amelia. Nevertheless, Christmas of 1867 was a time when I felt a particular fondness for Geraldine. I was bursting with pride at how well she had managed the house decoration and establishment. And I recognized that perhaps it was time to show my feelings in some quietly extravagant way.

At this juncture – the last few days before Christmas 1867 – the realization came upon me that despite a dozen years of marriage, there were many aspects of my wife's character about which I was woefully ignorant.

For example, I did not know her tastes in clothing or jewellery. We did not have the wealth to indulge in fashions – even had they really been available in the Province – while we were in Canada. What baubles Geraldine had apart from her wedding ring were unremarkable, even if of sentimental value. I knew she valued good quality fabrics, but that was but an extension of her practicality, giving no hint of her predilections should money be no object.

We were fortunately walking down the High Street on the Solstice – the Saturday before Christmas – when we passed a jewellers. Without formal agreement we stopped to look at the wares displayed in the window, and Geraldine said,

"Richard, is that not a fine watch?" indicating a gold or gold-plated pocket watch that was of smaller than usual dimensions and of a very clean and simple design.

"Indeed it is rather fine." I replied, then as a minor devil got my tongue, I said, "Perhaps I should buy you a waistcoat so I could then buy the watch for you as a present for being such a splendid wife."

“Richard. Your words please me no end, both with mirth and with a deeply felt joy. You need not bother about the waistcoat, for I would be most pleased to have such a watch in my reticule. I find myself from time to time anxious that I am late for appointments, and a watch would allow me some peace of mind.”

Thus we came to buy the watch – which was expensive but not extravagant – though we decided that I would wrap it and it would be a Christmas present. In the process of purchasing it, I had learned more about Geraldine’s tastes and likes. Having taken it to wrap, I visited the jeweller on the Monday and had it engraved

To my devoted wife
Geraldine Carr
Sans Pareil
1867

* * *

My mind came back to the train as it jerked slightly beginning its departure from Doncaster. Amelia stirred and shifted a little and I did too. It was cramped in the single bunk, but the warmth was welcome. It was interesting that I had experienced a certain peak of affection for each of my wives after a dozen years. The cliché of marriages was that they became rather less affectionate after such a time, that a routine would set in. That clearly did not fit my own memories. Nor, if I thought about it, my parents. My father and mother were never overtly demonstrative, but now that I put my mind to the times I recall them together, they would hold hands when they sat on the sofa together. And they would sometimes be speaking to each other in not much more than a whisper and both would smile. Perhaps the popular story was wrong, or at least far from universally valid.

This thought was very comforting and I drifted off into more dreams.

* * *

Our return to England and purchase of *Sans Pareil* took place proximate to the first Ferndale Colliery explosion on November 8, 1867, which killed 178 men and boys. Indeed, disasters were, I am rather ashamed to admit, very profitable for my consultancy, since they led to many commissions to assess and estimate what had happened or what remedies should be instituted. The same Ferndale Colliery had 53 dead on June 10, 1869. Each year there were mine accidents, if such catastrophes can be called accidental when they are so regular.

By the time of the Ferndale disasters, we had, of course, knowledge of safety lamps and mine ventilation, but the poor light from safety lamps compared to candles led men to use open flames, often in mines with ventilation that was poorly designed or badly implemented. Such poor practice was common. Indeed it still is, and some mines are more prone to firedamp than others. There were also matters of proper tunnelling, proper

support and safe methods of movement of men and materials, all of which were common to both mining and tunnel building and which were a source of commissions for me.

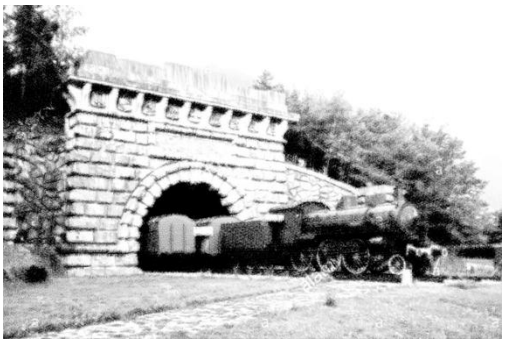
Railways too, had their share of disasters. One of the worse happened on the 20th of August in 1868 at Abergele in North Wales when some goods waggons were being shunted on the main line and were being held on a 1 in 100 gradient by a single brake. In the jostling of the shunting, which should never have been on the main line in any event, they escaped and collided with the oncoming Irish Mail.

I have mentioned how candles were giving way paraffin lamps, and this fact now becomes a contributor to the carnage, for the waggons that rolled into the mail train held some 50 wooden barrels of paraffin oil – 1700 gallons. These ruptured and the paraffin caught fire around the first three waggons of the mail train. Thirty three persons died. Colonel Rich, the Board of Trade Inspector pointed out serious operational deficiencies in the railway's operating rules, in particular allowing shunting on the main line and the failure to apply brakes on all waggons.

It seems, however, that the admonitions of Col. Rich were not heeded, and on September 12, 1870, just two years later, the same sort of accident claimed 15 lives with 59 more injured. At Barnsley top yard ten goods waggons were held on a gradient of 1 in 119 with a single sprag in the spokes of the wheel of one waggon. This seems to have been a stout stick pushed through a hole in the wheel so that it would jam against the axle support. Two gas tank waggons were then shunted up against these standing ten and the sprag broke, letting the 12 waggons proceed down the roughly 7 mile gradient, at places 1 in 72, into Stairfoot station, where there was a passenger train standing. The waggons, moving at more than 40 miles per hour, did much damage, and the human toll may have been increased because the passenger train was set up in an unorthodox manner with the engine and tender running in reverse to pull first a brake waggon, which would normally be last, then the passenger cars.

These two accidents did, however, begin a fairly general practice of installing catch points that, when set, would stop or derail runaway rolling stock. However, a large part of the cause must be put to the lack of properly functioning brakes that could be applied without having to exert a lot of force on levers or cranks on each waggon or car. Even with such inventions as Mr. Westinghouse's air brakes, we still saw disasters. Indeed, the most recent one in Montparnasse led to my commission in Edinburgh.

A new decade



By the start of 1870 the Suez Canal was open. Indeed the official ceremony was November 17, 1869. It shortens passages to the East remarkably and I hope the shareholders will win their fair reward for the risk of building it. Since then, of course, the French have tried to put a canal across Central America during the 1880s, but a lot of workers have succumbed to disease and no canal is yet open. My work did not impinge much on canals. It seems railways and the tunnels associated with them have been my bread and butter.

Before we put up a new calendar for 1870, my consultancy business was earning a comfortable living. Geraldine had thought of starting up a bookkeeping and correspondence business like the one she ran with Lisette in Montreal. From letters, we knew this continued and prospered. A friend of Lisette – a Quebecoise married to a retired Scottish army officer much her senior – had been considering a similar venture, and when she learned we were returning to England offered a modest but nonetheless adequate amount to buy Geraldine's share, essentially for a share of the current client list. We made sure Lisette was happy with such an arrangement, and it worked out for all three ladies.

In our first year in Tunbridge Wells, the exigencies of establishing our house and outfitting my office kept Geraldine relatively busy, especially as she did the cooking and household management aided only by Hilda, though Rickett did odd jobs one day a week. Most houses like our own would also have a cook and quite often a second maid. Thus Geraldine had not seemed inclined to seek remunerative activity, though I was most happy that she organized the correspondence, filing and bookkeeping of my consultancy. This became more important as the work grew and I engaged helpers for the calculations. In fact, before I hired helpers, Geraldine would often assist me in checking calculations, for which I was most grateful. One can never do a good job alone. Another pair of eyes sees a different page.

George was, of course, now going to school, following me to Tonbridge. He usually took the train each day, though sometimes he would stay with my sister Maude or else with my parents, though they were now both around 70 years old. This would occur when I had a particular press of work and Geraldine wished to help me. We could telegraph to let them

know George was coming, and this was easier now the Post Office had taken over all the telegraph companies.

Thus Geraldine became, at least to outside view, a seemingly typical middle-class wife. In our own foyer, of course, she was her own person. I was quite bemused by clippings she made of news reports, fairly early in 1870, that women had gained the vote in Utah, which somewhere I had read had some history of polygamy with a breakaway Christian sect. Then also she kept some clippings of black Americans voting and getting elected to office. The hopes these events inspired will, I am afraid, be a case of two steps forward and one or more back before society becomes egalitarian. However, we had in August of 1870 Mr Forster's legislation to mandate elementary education for all, with women allowed to stand and vote for local school boards. At the same time, the Married Women's Property Act was amended to allow them their own money and property. Our bank manager was still reluctant to open a separate account for Geraldine until I suggested that our personal and business accounts might be transferred to another institution.

It is strange how so many events took place together at the start of August 1870. I had been calculating for Peter Barlow and James Henry Greathead as they built their Tower Subway under the Thames. It opened as a railway August 2, and though that particular usage ended later in the year when the lack of reliability of the railway workings led to bankruptcy, the tunnel has had a very useful life as a pedestrian passage under the River. Moreover, it demonstrated the soundness of the engineering.

Tunnel news also ended the year, as we learned that on Boxing Day French and Italian workers met underground to complete the Frejus Tunnel. Given the length of the borings from each end, it is remarkable that the alignment was to within about a foot and a half horizontally and two feet vertically.

* * *

Others, I know, do not share my own peculiar fascinations with human enterprises. Oh, they may note them, but the viewpoint is different. This was brought home to me during the year as, on morning of Friday June 10, 1870, I went out for a walk to clear my head from some heavy calculations. This is my accustomed way of avoiding headaches and of maintaining my focus. When I came back into the house it must have been close to eleven o'clock. Geraldine was out, I believe to provide some assistance at the church. As I closed the front door and hung up my hat, I heard quite violent weeping from the kitchen and went to investigate. There I found Hilda wetting the morning newspaper with her tears.

"Whatever is the matter, Hilda?" I asked.

"He's... he's.... he's dead, Mr. Carr."

"Who is dead?" I queried, worried it might be George or my father.

"Mr. Dickens, sir. 'e died yesterday at Gad's Hill."

“The writer, you mean.”

“Yes sir. It’s a terrible loss.” And more tears flowed.

I was nonplussed. As far as I knew, Charles Dickens was not a family relative of Hilda, and I did not suspect she was his doxy, though there were rumours he did not respect the marriage contract with his wife. So I asked cautiously, “Was he special to you?”

“His books are just so beautiful, Mr. Carr. It’s a tragedy that he’s gone.”

While I had enjoyed some of Dickens’ novels, and could regard his demise as unfortunate, my mood was clearly less affected than that of Hilda. I suppose I could have told Hilda she was silly to be so overcome by emotion about someone who was not close to her affections, but instead suggested she have a cup of tea, then see if some manual activity or other would provide perspective to her feelings.

Similarly, when hostilities broke out between France and Prussia in late July, I was very concerned England might be drawn into the fray, or that British interests might be harmed by unintended but nevertheless damaging activities of the combatants. Bombs and bullets do not respect neutrality. Reading the newspaper accounts, I overheard Hilda and Geraldine bemoaning the possibility that the war might make it difficult for corset-makers to obtain baleen, commonly referred to as whale-bone, though it is not really bone. As a man, I regarded corsets with some trepidation, more as a hindrance than a useful article of clothing. Even the recent introduction of steam moulding to shape them was of but passing interest, and more as a production process. But to the ladies, the war-induced shortage of an unnecessary item of fashion was clearly the main concern.

* * *

Even with Geraldine keeping track of my commissions and correspondence, by the beginning of 1871 I was starting to find my time very occupied. It would be nice to have a bit of time to enjoy life, and to share some travels and experiences with Geraldine and George. It would not be so long before George would be grown and making his own life. Thus, soon after the New Year I approached the Headmaster of Tonbridge School – still Revd J I Welldon from my own time there – and asked if he knew of any boy soon to finish who might be interested in coming to work with me and learn the profession.

In due course, in fact over the Easter holidays, a young man about to turn eighteen named Roger Parks wrote to me and we arranged for him to come for a morning and see the kind of work I did. He seemed keen and intelligent, and commented sensibly on the way I organized some calculations I was checking that required trigonometry and others with logarithms. He was the son of a local solicitor in Hildenborough, a widower with a daughter younger than Roger. As mentioned, he was seventeen, and planning to leave school at the end of the summer term. The family was nonconformist, which would bar him from Oxford, Cambridge or Durham, though that restriction was ended later in the year. However, I

believe the family, though not poor, did not have the resources for him to go to University. Nevertheless, he was completing his final year in the Sixth Form.

In that it could be a disaster for both me and Parks if either he did not work out well or he did not find the work agreeable, we decided I would give him a trial at very modest pay of a few hours a week during term time and perhaps more if we found it suited us during school holidays, and if we both were satisfied towards the middle of the last term, which was also his last term at the Tonbridge School, we would formalize arrangements for a sort of apprenticeship, though he would be paid for his work.

I related to Parks my own experience with Cudworth, and how it had been arranged that I earned some remuneration when doing work of profit to the railway, and that my intent was that any apprenticeship should advance from training to professional practice. However, I pointed out that my consultancy was almost entirely reading, writing and calculating, so we would have to figure out how to include some practical training, either with associates or clients.

Though it is jumping ahead somewhat, I am pleased to say that Roger Parks is now a partner in the consultancy. We found practical assignments with Kirkaldy in materials testing, and some modest assignments with the local railway locomotive and track engineers, and I managed to lend him out quite early on to a local land surveyor who was measuring some land for some building enterprise near Broadwater Down, and later for settling a boundary question near Kippings Cross. In these tasks he did well, his calculating skills allowing him an advantage.

* * *

Outside of the positive development of engaging Parks and a steady run of commissions for me relating to tunnels and mines and such, the newspapers tried hard to keep us in a bad mood. The weather did not help, and the Great Gale of February 10 1871 sank 28 ships and the Bridlington life-boat. It appears over 50 lives were lost. The war between France and Prussia – now united with south German states into the German Empire under Wilhelm I and his chancellor Bismarck – nominally ended with the fall of Paris on January 18, but then the Commune was declared and lasted until the French Army defeated the Communards in May. We will probably never know the total death figures, as there seems to have been much murder and mayhem. And then trials for 40,000 of the Communards. A very black time for the French.

There was, of course, some good news from Canada: British Columbia had joined the Confederation and a census reported that there were now over 3 and 1/2 million residents of the Dominion. A small news item also reported that the Weights and Measures Act would become law next year allowing use of the metric system, though it was not clear from the small note whether this meant that shopkeepers could quote prices in metric units. I suspected it simply meant that engineering calculations could be conducted and reported in metric.

From the United States, October saw four huge fires around Lake Michigan. For some reason, that which took place in Chicago is the best known. It caused 300 deaths, but left nearly 100,000 homeless. The nearby and very large – 1875 square miles burnt – Pestigo Fire will never have a true death toll, but perhaps 2500 died. However, it seems almost unknown to the general public.

In September, 33 whaling ships got stuck and crushed by Arctic ice. Amazingly, all 1219 people on those ships were rescued. Perhaps there were some suicides among the insurance underwriters! Clearly, one aspect of engineering that will need to be developed for future ventures into polar regions is suitably reinforced ships capable of breaking the ice to allow for transport and rescue in these latitudes.

And near the end of the year the telegraph cable from London to Australia was hauled ashore near Darwin. Amazing that it has come this far in about two decades, and communication around the world is almost a matter of minutes. Of course, we still have some work to do to get the messages quickly from the telegraphy offices to business premises and private homes, and also to route messages between different telegraph companies. Fortunately, in Britain the General Post Office has now held the monopoly on telegraphic communications for over a year. Many telegrams had errors and when they crossed company boundaries, they were often “lost”. However, things were improving and David Hughes had already showed how to transmit from a keyboard. We certainly could not imagine this when I was in school.

Engineering and Leisure

The northbound express clattered through a cutting, and I dreamt of it running through the years of the 1870s. Somehow late August of 1872 came to mind. A few days before the more practical Portland Breakwater was completed, the Hastings Pier, designed for amusement and pleasure, had opened on the 5th, albeit in pouring rain.

In the latter part of the month, I suggested an outing to take a look at it. Geraldine took up the theme, and suggested we go mid-week, when it might be less crowded than on a Saturday or Sunday, and moreover that we take Hilda and Roger too. So on a Wednesday, we started quite early by train.

As the train slowed to stop in Robertsbridge, Parks asked “Mr. Carr, did you read that item on the Westinghouse air brakes?”

“Actually, Roger, I’d been meaning to look at it, but somehow I seem to have not had the time. Do you think they will be adopted by the railways?”

“I’m not sure, Mr. Carr, if the precise model from Westinghouse will be used, though he does now have the patent. But I think the general idea that the brakes get applied when pressure is lost is the right approach. It ensures that if a coupling fails, the brakes are applied. Also that opening the valve in any carriage applies the brakes to all the carriages.”

“Yes. That makes sense. I suppose the difficulty is ensuring that the force to apply the brakes is available, either in stored pressure or springs.”

“I think they intend to pre-pressurize the actuators somehow. But if that pressure is lost, then the system could, of course, fail. Springs would be better, but then there is a lot of energy in the springs that could be awkward to release when maintenance of the brakes is needed.”

Parks was getting the hang of engineering thoughts. But I could see Geraldine and Hilda giving us the evil eye for discussing work. George simply ignored us, watching out the window to survey the passing countryside. However, if I were honest, my own reason for wanting to visit Hastings was that I was very interested in the pier and its design and construction, it being the first purpose-built pleasure pier in the country, possibly the world. The designer, Eugenius Birch, had apparently adapted the iron screw pile developed by Alexander Mitchell for the supports of the pier. These were, it seems, iron pipes with a large screw – much like an oversized wood screw used to attach hinges to a door – on their base. This screw was forcefully wound into the sea-floor mud to some depth, so that the structure was quite solidly supported.

Given Geraldine's clear intent that today was for enjoyment, I would have to be circumspect in my observation of the pier.

As I recalled this, a jerk of the train partly woke me as Amelia bumped against me. I realized that a particular difference in my two wives was that Geraldine did not comprehend that I took great pleasure and enjoyment in observing various engineering accomplishments. I did not regard it as work. Moreover, Amelia was very good at asking me about things. She explained it once "I want to understand what gives you joy, if possible to find that same appreciation, or at least a part of it, myself."

Indeed, some years later Amelia and I happened to go to Hastings for some reason that I no longer remember, and we had sat on the shingle talking about the pier and its screw-pile supports while having a picnic.

Ah. A picnic. That day with Geraldine, Hilda and Parks we had a picnic too, and also on the shingle. We did this before going on the pier, as we suspected that the management would not want people bringing their own food when there were stalls and a restaurant there. To this end, Roger Parks and I both had rucksacks, an interesting idea borrowed from the Germans, which we had found useful in our field work. Into these Geraldine and Hilda had packed sandwiches, some biscuits, and some bottles of ginger beer and lemonade.

Before eating, however, we took a stroll up and down the promenade. We watched some of the fishing smacks come in with what appeared to be a rather meagre catch. However, they had some extra people on board.

"I suspect the fishing is only for show, and the real business is the holidaymakers" Parks opined.

Indeed, there was quite a fuss to get the ladies off onto the beach without wetting their skirts. A couple of the holidaymakers looked a bit unhappy, likely from seasickness, as the smack had to come in through the waves and bounced around a good deal.

We then found a place – I was careful to bring us fairly near to the pier for my own reasons – where we could sit on the shingle beach and have our picnic lunch. There were some people bathing, and indeed there were some bathing machines being wheeled into the

water. However, some men had clearly donned their bathing suits in huts near the promenade and simply walked into the water.

“It’s a pity we didn’t think to bring bathing suits,” George said.

“I don’t think any of us have one,” Geraldine said. “And I don’t know how to swim, either.”

“In Canada we swam in the lakes and rivers, but without costumes,” George said.

“That might be acceptable in the wild areas of Canada, but it would be most improper here,” Geraldine asserted in a tone I hoped George would understand. I noticed Hilda blush, and Parks look away sheepishly.

“But may I roll up my trousers and paddle at the edge of the water, Mama?” George asked.

Since there were several people doing this, including some women who had tied up their skirts and removed their stockings, Geraldine assented. Hilda and Parks joined George, but Geraldine and I stayed with the picnic things and the shoes and stockings.

“Oh! Something tickled my toe,” Hilda cried.

“It’s a small crab – look!” Parks pointed, and they all laughed. Parks continued, “It’s no bigger than a half-crown, and scuttling away.”

After a bit, the paddlers returned and let their feet dry, then donned their footwear again. We then went onto the pier – I had in announcing the trip said I would pay our railway tickets and pier entry as a treat for Hilda and Parks. We paid our entry and walked out to the end of the pier and watched the sea for a while, then went to the auditorium where a small chamber orchestra was playing. To this we listened for a while, and George surprised me by being uncommonly calm. I had suspected he would soon be anxious to be doing something more.

After the orchestra finished their performance, we once again strolled the pier. It was now about half-past three, and the sea air and the music had made me quite lazy. Geraldine and I noticed a bench on the promenade and decided we would sit there, but Parks, Hilda and George wanted to see the town. We agreed to meet at a café we noticed on the front at five o’clock for tea.

I confess I fell asleep for some minutes, awaking when Geraldine said something.

“What did you say?” I said, coming out of my nap.

“I was asking you if you thought Parks and Hilda were ... er ... looking at each other.”

“Do you mean to ask if they might be courting, or perhaps thinking about courting?”

“Well, yes.”

“And would that be a particular problem, either in general or for us in particular?”. I’m afraid I was taking some delight in teasing Geraldine, though possibly she had some real concern I did not understand.

“Well, it could lead to something ... improper.”

“That could happen. Parks and Hilda are young. But I don’t find them unthinking or irresponsible. Have you forgotten our own meeting and courtship?”

“I suppose you’re right. They are both good young people.”

“And though they are our employees, I feel too many employers take it upon themselves to prescribe how their employees’ lives unfold, though I fear I am in the minority.”

“So we should wait and see?” Geraldine concluded.

“I think so. Though that does not mean we condone bad behaviour. However, our experience of both Parks and Hilda suggests that they are quite proper in their behaviour.”

This seemed to end this particular conversation, and after a few more minutes it was time to go to the café. We had a nice tea of poached eggs and then some cakes before making our way back to the station to return to Tunbridge Wells.

* * *

The next day as Parks and I finished checking some calculations, I noticed he seemed rather awkward and nervous.

“Parks. Is there something you wished to add about the calculations?”

“Er. No, Mr. Carr. ... Um.... But I did have a question?”

“Do ask.”

“Well, Mr. Carr. Yesterday was a very pleasant day, for which I am most grateful and thankful to you and Mrs. Carr. And I know Hilda feels the same way, as we talked about how much we enjoyed ourselves when we walked about the town with George.”

“You are both most welcome. But what is the question?”

“Er. I wondered ... er ... if it would be proper for me to ask Hilda to come out with me on other occasions? Nothing inappropriate, of course. She is a fine young woman.”

“Parks. I appreciate your asking. And I see no objections to your spending your free time as you please, within the bounds of propriety. From a conversation I had with Mrs. Carr, I am fairly certain she is of the same opinion. Unless I tell you otherwise, you may assume she shares my view.”

“Thank you very much, Mr. Carr,” Parks said with a huge grin.

* * *

In 1873, my business received a large number of commissions. Many were quite straightforward. They earned us a solid revenue, but the work was – to be honest – rather dull. So one morning in the spring I said to Parks,

“Parks. Do you think it’s time for us to engage another person to assist with the calculations? We seem to be doing a lot of rather standard calculations.”

“Mr. Carr. I think that there is enough work that the expense of hiring another person would be easily covered by the revenue.”

“That’s very perspicacious of you. Yes. We cannot hire someone unless the business can support them. Would you be prepared to help train them? I’m assuming that we would engage someone much as yourself a couple of years ago.”

“Yes. That would make sense, though there is the difficulty of doing the current work and training a new person. However, I would be willing to put in some extra time in the evening or on Saturday afternoon. Or even Sunday.”

“We have never formally worked on Sunday, and I don’t plan to start now,” I said.

“We will need to fit another desk here,” Parks said.

I had not thought about that, and realized I needed to consider whether we should continue to work from the house. I’m afraid I covered up my lack of thought with a fib.

“Well, I am giving some thought to the possibility of getting an office for the business. In fact, I think I will go out now to the estate agent on the High Street and see what might be available.”

That is, in fact, what I did. That very day I discovered there was a second floor set of rooms available on the High Street. There was a large front room, with the back having two rooms, one with a sink, as well as a water-closet. I realized almost immediately that the space would serve very well as our office and would allow an employee to live in the back half of the premises unless we grew to need the full space.

Once again, I asked the headmaster of Tunbridge School, and he suggested a young man who was going to leave the school at age 14 and was looking for an apprenticeship. Samuel Johnson was the son of a grocer in Southborough who wanted to become an engineer. His father was a great admirer of the famous lexicographer, but I must confess we later discovered spelling to be one of Sam’s weaknesses. We took him on trial for a month, but it was clear after just a few days that he would be an asset to our enterprise.

Geraldine and Hilda were rather excited by the new office and helped clean and paint it. As with the house, we found some hard furniture second-hand, but bought new soft furnishings.

That Parks would move into the rooms behind the office somehow was just decided as if by edict from on high, as I cannot for the life of me remember when it was discussed.

That year, 1873, was very full for me. Besides opening the office, I was busy with both my immediate family and with my siblings and cousins. George was now almost 17. As our only child, perhaps Geraldine and I were more involved with his growing up than most other parents of our generation. Somehow there was a family gathering or outing every week.

Strangely, I remember almost nothing particular about these events. On the other hand, I have a myriad of warm and happy images and pictures of them that play as a panorama in my dreams.

In reality, the world was not so happy.

In October 1872, an underground explosion at Morley Main Colliery in Yorkshire killed 34 men, and at the Springwell Pit, a failure of the winding chain killed a further eight in December. Eventually the consultancy received some work calculating the stresses in mines, but that was, ironically, after 1873 saw the start of the Long Depression. Also in early June 1873, just two weeks after it was opened, the People's Palace – Alexandra Palace – burned down killing three.

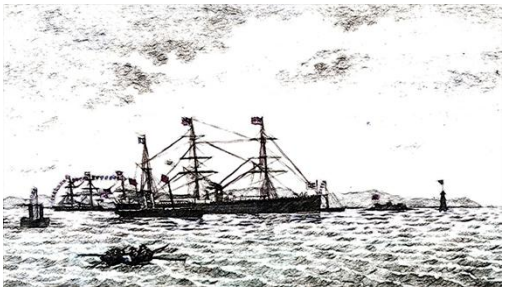
The new Dominion of Canada was not spared, particularly the province of Nova Scotia. On April 1 1873 the steamer *RMS Atlantic* struck rocks and sank not far from Halifax, killing 547. The enquiry blamed the captain of the ship, who appears to have been foolhardy and reckless. All the women and children died but one, not being strong enough to haul themselves along a rope one of the crew managed to swim ashore with. Then on August 25, a cyclone hit Cape Breton Island killing 500 and causing much damage. Other ships had been lost to overloading, but Samuel Plimsoll MP had managed in 1872 to get a Royal Commission to investigate. It would be many years before his efforts were fully vindicated – in fact 1894 – and loading lines made mandatory on ships.

More positively, on the 2nd of April 1873 a sleeper car was introduced for the first time in Britain on the Glasgow to London route, a harbinger of my trip with Amelia more than two decades later. In that year, the Ballot Act introduced secret ballots in United Kingdom elections. Progressive energies possibly propelled Britain to declare war against Ghana's King Kofi KariKari, who was involved in the trading of slaves. Similarly, pressure was brought to bear on Sultan Sayyid Barghash to close slave markets in Zanzibar.

At home women were making their mark in the professions. Alice Vickery passed the Royal Pharmaceutical Society's examination in June to become the first qualified female pharmacist in the U.K. Unfortunately, though Elizabeth Garrett Anderson was admitted to membership of the British Medical Association, the Association then voted against the

admission of further women in 1878, so she remained the only woman member for nineteen years. However, Cambridge did open Girton College as their first women's college in October. The world was changing, though I am certain I did not really notice all these changes at the time. Perhaps one never does.

George's Choice



Despite the Long Depression – it seems only to have come to an end in the early 1890s – my business went well, probably because the last twenty years have seen unparalleled building of railways and related engineering. Geraldine and I were comfortably prosperous, and I believe that the people in our household and business were similarly happy.

In September of 1874, I realized that George was starting his last year of school, and that it was time to talk more particularly about his future career. His progress in School had shown him a moderately bright student, and he seemed to have a variety of interests, but he had not talked about his wishes. Hence I suggested we take a walk together on the Commons one Saturday afternoon when Geraldine was shopping for some new clothes with a lady friend.

"Well, George, you're now in your last year of school."

"Yes, Father. I'm glad you asked me to walk with you today. I'd like to get your opinion on what I should do next."

"I'm probably unlike most fathers today in that I won't insist you join me in the engineering consultancy."

George let out a long breath, then said, "I was a little afraid you might want me to join you. And I must say that I would have liked to work beside you, but I'm afraid I find engineering only passingly interesting. I don't think I have the same keenness that you and Parks and Johnson show."

"Every career has a lot of dull work, so it's important that you find something that gives you ... well, passion. Is there some career that you do think might give you that?" I asked.

"Well, you know that I have always found animals interesting. I also think it is important to be of service to others. So I have been thinking of a career in medicine, though I am not yet sure whether as a physician or a surgeon, or some speciality."

“I believe that to be a reasonable choice, and I’m sure it will please your mother too. Do you think you will be able to cope with the unpleasantness of disease, injury, and death?” I asked.

“I cannot of course be certain, though I must say that I have given that possibility some thought, and I believe that the promise of helping others and learning what can cure disease will outweigh the negatives.”

It was clear that George had been ruminating on his career. How little had I anticipated that my son would consider his future so seriously. I asked, “Do you have an idea where you would like to study?”

George hesitated, seemingly nervous, then said “Actually, I have wondered if I might study at McGill University in Montreal. I still remember Canada, and the memories keep ... recurring. I thought also that a young country might need doctors. But I fear mother may find my absence rather cruel.”

“Indeed. That will give her some unhappiness. However, your ideas are sensible, and it is clearly not an idle whim that has brought you to this suggestion. Let us investigate and learn what will be involved and whether it makes sense for you to do so.”

“Thank you father. I was rather worried you might immediately try to dissuade me.”

“I could not do that – well I suppose I could – but it would be hypocritical since I made my own career start in Canada.”

“I was hoping that your sense of fairness would help me there, father.”

George now had a big grin. I said, “However, I think you should, at the same time as you investigate McGill, also find out about medical training here in Britain. There is, for example, Joseph Lister, who seems to be upsetting some of the surgical community by insisting that they clean their instruments with carbolic acid and wash their hands. Given that machinery works better when it is kept clean, I think he may be right.”

“Yes, Father, there is a lot going on right now. Louis Pasteur in France has been causing some controversy, but I think he will be proved correct for the most part. In any event, I will definitely ask where the medical training is considered good both here and in Canada.”

“Well. I suppose we now have to figure out a way to tell your mother. And be ready for some tears and complaints, I fear.”

“I do hope not too ... disquieting, Father.”

* * *

As it turned out, Geraldine was not overly upset by the suggestion that George study in Canada. We did not tell her for some weeks, as George wanted to have information on medical training in Britain as well as in Canada – well, Montreal – and this took some time to gather. Indeed it was not long before Christmas that he asked if he might converse with us after tea one Sunday concerning his future. Though I knew the essence of what he would present, Geraldine did not, as far as I was aware.

In any event, George had the letters he had received from the different institutions of learning, and he had worked out a budget.

"I believe it will take me four years to complete my medical studies. While I hope it will not cost me so much, I believe I must allow 200 pounds a year to cover my tuition and my cost of living, and a further 200 pounds for my fare, clothing, books, instruments, and other things."

"Have you the notes of your calculations?" I asked, the habits of a lifetime ever part of my thinking.

"Of course, Father. I was certain you would ask," George said smiling, and Geraldine chuckled.

I was about to say something in my defence, but saw that it wasn't necessary. George had a well-organized table of his expected expenses, with a healthy contingency. Though the rule of thumb was that a pound Sterling was worth five Canadian dollars, the latest figure I had seen was 4.86 and George had been more conservative still and used 4.5 for conversions.

"A thousand pounds is a lot of money," Geraldine commented, her smile diminishing.

George responded immediately. "I have 110 pounds saved, and I think that I should be able to earn some money from odd jobs, and possibly win a small scholarship if I study hard. If you can loan me a few hundred pounds I should be able to repay you within a few years of my being licensed to practice."

"Even a thousand pounds, and as a gift, would not cause us hardship," I said. "But it is a good idea for you to try to carry out your endeavours with as much personal independence as possible. Let your mother and I put aside a thousand pounds in a form that we can remit funds – as a loan if you wish – when and if they are needed."

Geraldine was smiling. So was George. He said, "Father, Mother. Thank you so much. However, it would please me and set my mind at rest if you would both check my figures and plan in case I have forgotten anything."

"Of course," Geraldine jumped in. "And I must write today to Lisette and Aunt Anna to let them know your plans. I'm sure Lisette will have some ideas where you can live, and also tell us about current prices and things to watch out for. I'm not so sure how Aunt Anna is doing since Uncle Rupert died two years ago, so soon after selling his business."

While she was doing this, I had fetched the sherry and three glasses. As I filled them, I said, "I think a toast to George's future is in order."

* * *

A number of letters went back and forth to different people. I was still in touch with Joseph. He offered to help George get outfitted with winter gear that would be more suitable and likely lower cost than buying it in England and having it transported in George's effects. It did, however, seem sensible to acquire a few of the medical texts in advance.

Lisette had a widowed neighbour whose last son had recently left home and was looking for a stable tenant. She did not want to run a rooming house with itinerant guests. However, Lisette said she did not speak English. George thought it capital, as he felt that it was necessary to be able to communicate with patients in their own language.

"When people are very ill, they cannot be expected to try to talk in anything but their mother tongue."

I admired his sensibility, but wondered how his school French would serve him. However, before I could say anything, he added,

"I expect it will be a challenge to learn the accent and dialect, but having to communicate with my landlady should speed up my learning. And I did play with local children when we lived there."

It was strange how I somehow had forgotten that fact. George probably had some capacity already to speak the dialect, but he had used it at play, and not where we would have occasion to notice.

Eventually the process of gathering what he would take, working out how much money to take and how much to transfer via the banks, finding a passage, and so forth, all were settled. As a treat, we gave George a first class cabin on the *SS Sarmatian*. It sailed from Liverpool on June 24, 1875. Geraldine and I travelled with him and stayed overnight there before seeing him off. Geraldine wept a good deal, as I knew she would, so we had decided in advance to say our goodbyes as George went aboard and then leave rather than watch and wave. In the event, I think this saved my dear wife some considerable emotional distress.

Late in July we got a long letter from George.

Montreal, July 12, 1875

Dear Mother and Father,

I have written this letter in stages so I don't forget
anything I want to tell you.

The Sarmatian stopped briefly in Belfast, but we didn't disembark. We arrived near Quebec July 4. However, passengers were not disembarked until July 6. Though the cholera and typhus crises of earlier in the century were past, the authorities still maintained a vigilant watch at Grosse Isle. We did not have to land there, fortunately, but did have to submit to medical inspection on board for all the passengers. I think it was much less rigorous and more polite in First Class than in Steerage, where there were a number of Mennonite immigrants.

As you know, I had still to get to Montreal. Following your suggestion, I took a couple of days in Quebec to see that city. The walls, the old buildings, the Plains of Abraham. I enjoyed it very much. Then I took the ferry to Levis and entrained to Montreal. Tante Lisette -- she insists I call her Aunt -- was there to meet me.

M. Lefebvre came to visit after supper, and we arranged that the following day, July 10, he would meet me at the Grand Trunk offices and introduce me to some merchants where I could get outfitted. He even had a list of suggested items and what he thought should be the prices. I have not bought any items yet, as I want to get settled first. Right now it is hot and humid here, so woollens seem very unnecessary. I remember winter, however, and will buy what I need in good time.

Before meeting M. Lefebvre on the 10th, I went to the Bank of Montreal with which we have corresponded and established my account, depositing the majority of my cash. I have kept back a sensible sum in both pounds and dollars, as you suggested, in case of an emergency. I will have to find a secure place or places to keep it.

I have also been to see Great Aunt Anna. She is well. She has a very nice, though quite small, apartment in a nice street not far from McGill. When I mentioned that I hoped to get some occasional work to assist in

paying my expenses, she wrote a note to the man who bought Uncle Rupert's business, as she says he was a friend as well as a business associate. I have been along to see him and it looks like the business can happily use someone comfortable with numbers. Even though I do not have Father's facility, I have been around bookkeeping and figures all my life. Though I will not earn a great sum checking the accounts for Mr. Bradshaw, for that is his name, the revenue will be welcome. During the next few weeks, I will work more or less regularly, as two of his staff are taking some holiday to see family. This will give me a chance to learn the nature of the business, which I'm sure Mother was familiar with, but I only remember as a child who enjoyed the fascination of all the things in the shop.

As had been suggested by Tante Lisette, I will be lodging with Mme. Lagrange. The address is at the bottom of this letter. My school French is only just up to allowing very basic communication at the moment, but I am sure that will improve quickly, as I really do wish to become proficient enough to be useful to patients from both communities. It will also not hurt my social life. I have also asked M. Lefebvre to speak to me in French unless I ask him to help me with a particularly difficult phrase.

At McGill, I have already presented myself to ensure that all is in order for me to start my studies in September. It looks like I will be very occupied with these.

Mother and Father, I cannot say how much I appreciate your confidence in me and your generosity in letting me return to Canada. I only hope I can do enough to make you proud of me.

Your affectionate son,

George Carr

PS. Construction of the Lake Superior to Winnipeg section of the Pacific railway has started. I will try to send newspaper clippings as it progresses.

* * *

After George's departure, our house felt rather quiet. For several months both Geraldine and I were, I think, at loose ends. In late October, Parks and I were working in the office. Sam Johnson had been sent to London to learn a bit about Kirkaldy's testing devices and also to carry up some samples of bolts and fasteners for which I felt the makers claimed too much in strength.

As it was mid-morning, I suggested a break for a cup of tea and put the kettle on the gas ring.

"Did you see that almost all the railways have abolished Second Class?" I asked by way of small talk.

"Yes, Mr. Carr. But why did they all keep the Third Class name? It's silly to have First and Third and no Second. And – though I would be annoyed at the railways for so doing – they could have tarted up the carriages and charged a bit more, thereby increasing their profits."

"I'm afraid I cannot but agree with your thinking, Parks. But we are not the railway directors."

"On a completely different matter, sir, might I ask your advice?"

"Certainly, what's it about?"

"Well, I'm sure you are well-aware that Hilda and I have kept company now for over two years. We've saved a bit of money and we are thinking of getting married. However, I'm not sure how that would affect our living arrangements and Hilda's employment with you and Mrs. Carr ...."

Parks trailed off, seemingly not quite sure how to continue, so I jumped in.

"Having had to make similar decisions myself with Mrs. Carr – Miss Meade as she was then – I can first say that I have found the support of a good wife of inestimable value and comfort. I further think you and Hilda are well-suited. But I suppose your main concerns are whether Hilda can continue to work for us – unless and until children come along and we need to revise arrangements. And, of course, your accommodations here might work for the two of you, but not later."

"Yes, sir. It was those matters upon which I wanted advice."

“Do you think that remaining here with Hilda might work for the short term? It would mean her walking up to the house to continue her duties there, but I cannot see great objections to that. As I said, if and when children arrive, both the space here and Hilda’s ability to continue in the same role at the house would have to change. Though I think Mrs. Carr and I would rather find some way to change Hilda’s role rather than lose her completely.”

“That is most generous of you to say, Mr. Carr.”

“Just in case I am wrong, I will confer with Mrs. Carr and let you know tomorrow. It is never a good idea to presume a spouse’s opinion, Parks.”

“That, Mr. Carr, may be the best advice today.”

* * *

Parks and Hilda decided to marry the Saturday after Easter, 1876, that is April 22. They wanted the benefit of the Spring, and we arranged that they should have two weeks for a honeymoon. They decided to take a week on the Isle of Wight, where somehow Parks’ extended family had someone with a cottage they could use, so their expenses were mostly for travel and food. Then they returned to spend several days decorating and adjusting the accommodation behind the office, while also taking some local excursions.

Overall, the main change in the domestic routine was that we decided we could hire a second maid. Up to now, Geraldine had done most of the cooking and some of the domestic chores, but – as I pointed out to her – we were reasonably prosperous and without being spendthrift could easily afford to hire someone who would live in. This would allow for much easier adjustments should Hilda bring forth a bevy of infants and retire from service, since we would have already engaged someone well-acquainted with our household.

Thus Betty Lock was hired, actually through acquaintances of Parks and Hilda.

Truthfully, looking back, my memory plays tricks for this period. I am more familiar with the world outside Tunbridge Wells than the events of my own household. Or, rather, I am unable to place personal events I do remember on the calendar. They are domestic happenings, not historical ones.

Thus I know that in late 1875 and early 1876, I was discussing the implications of the new Public Health Act with my engineering associates, since new sanitation measures were being required of towns and cities. And through 1876, news of the telephone, both as a technology and as a source of dispute in the American courts, found frequent mention in the newspapers. But I do not always remember which niece or nephew was born before another, nor when mother made the custard with salt, thinking it was sugar. Of course, I have strong memories of such events, but not of the dates.

* * *

Montreal, July 12, 1876

Dear Mother and Father,

It is now over a year since I sailed for Canada. The time has gone by very quickly, but I have mostly been happy here. Mme Lagrange has been most hospitable and I make sure to be solicitous in case she needs my help to handle heavy objects or to attend to things she cannot or should not be doing.

My studies this year have been difficult and arduous, but I am pleased with my results. I believe that these are good enough that I will get a modest scholarship or bursary. Every bit helps.

In your last letter you asked about the state of my bank account. As you know, I brought a draft for 300 pounds which was converted into dollars. My initial outlay for my first year was about 100 pounds, and I feared I would spend that amount again over this first year. Actually, that has been approximately the case, but I have been able to earn about that amount working for Mr. Bradshaw, so my balance is still near to the value of 200 pounds, though in dollars. I am, therefore, very happy to say I do not believe I will need you to arrange a transfer soon.

My intention to learn to speak the local French has been much aided by my interaction with Mme Lagrange, and this has turned to my advantage, as Mr. Bradshaw is not good with the dialect. Indeed, his French is almost non-existent, so he had little patronage from a good portion of the community. With just a little care to place myself in the right location at the right time, I have been able to win some business for him, for which I have been rewarded with a modest commission on the value of the transactions.

Recently we had the Dominion Day celebrations. This included -- I am sure Father will know already -- the formal opening of the Intercolonial Railway to the Maritimes. Hopefully, I will in the not so

distant future get to take that railway and see that part of Canada for myself. The Canadian Pacific is, apparently, progressing in the westward direction, but seems to be generating a lot of political hot air. I do hope, for the sake of this new nation, that it gets completed.

I was much pleased to hear of the marriage of Hilda and Roger Parks. They are good people. I have enclosed a short note to them, as I do not have an address. For myself, as I am not yet 20 until October, I must postpone any thought of finding a wife. However, I have been fortunate to be able to meet and converse with some very nice young ladies through some social activities organized by students at McGill. Also Mme Lagrange has a niece Sophy who comes to the house sometimes to assist with heavy cleaning or the preserving of fruits and vegetables. She has helped me with French while I try to give her some pointers on English.

I will end for now and catch the post if I can.

Your affectionate son,

George Carr

* * *

George wrote several letters that summer, but I don't remember their content. I do remember replying in the Autumn.

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent
October 15, 1876

Dear George,

Your letters are a source of great pleasure to us both, and we appreciate your regularity in corresponding. We

will try to do the same, as otherwise we will lose the measure of your daily life. The details and snippets are probably more helpful than you realize to capture how your life unfolds.

Here we have kept quite active. The consultancy continues to get plenty of work. Young Sam Johnson is proving a quick learner, but I think we will see if we can find him someone else to take over his apprenticeship as he is more inclined to the material aspects of engineering than the figures. While I could be disappointed in this, my belief is that young people should follow their own sense of career, as long as that leads to a positive and rewarding path.

Mother has been busy with the local church women. There is some concern that the activities of the Christian Mission and groups like the Women's Christian Temperance Union are possibly going to weaken the moral authority and the size of the congregations of the Church of England.

With deepest affection,

Mother and Father

* * *

Montreal, December 31, 1876

Dear Mother and Father,

The old year is about to end. Christmas is over, but there will be celebrations tonight, of course.

This probably will take some time to get to you given the winter weather and the holidays, and with today being a Friday, but I will post it today anyway.

I was invited to several homes of friends over the Christmas period. Indeed, it required some diplomacy to make sure everyone was satisfied by my attendance.

I had Christmas dinner with Tante Lisette, but she was extremely generous and sent an invitation to Great Aunt Anna as well. I undertook to look after the transportation and escorted Aunt Anna from and to her apartment. Aunt Anna and I contributed some treats to the festivities, at which there were over 20 present with the children and grandchildren. Communication was in a mish-mash of English and French, sometimes both in the same sentence. I have never seen Aunt Anna in such good spirits before. A very special day.

Though I eschewed the study of engineering, I find Father's influence still with me, and I keep a watch on the newspapers. There is great interest here in Mr. Bell's telephone, especially the conversation he had from his residence several miles to Paris, Ontario last August. There is talk he will establish a commercial service in the coming year in Hamilton. However, I'm sure that the price of the service and the proportion of the population who subscribe will be interconnected forces in determining whether or not the venture succeeds.

Did the news of the fire at The Brooklyn Theatre appear in England? There seems to be some controversy about the number of deaths, but possibly more than 300. I wonder if some sort of automatic fire extinguishing system will become necessary for theatres and other places where many people gather or are living. I read that a man named Parmalee has some such system in his piano factory. Well, we'll see.

I had better get ready for the party I am going to tonight with some of my medical student friends. Do not fear, I shall not over-indulge in intoxicants. In fact, I find I only enjoy alcoholic drinks in very small quantities.

Do keep well.

Your affectionate son,

George Carr

* * *

253 Avenue Haute Ecluse
Montreal, Quebec

September 26, 1877

Dear Father and Mother,

As you will know, I have now entered my third year of medical studies. We are now starting to actually take part in consultations with patients and will be allowed -- in fact required -- to perform some small functions. Gradually the import of our tasks will be increased. I hope my skills and knowledge will serve me well.

Over the summer, Sophy Meilleure and I became quite good friends. She is a niece of my landlady. Sophy is apprenticed to an apothecary, so there is some common ground to our work. As we are both quite determined to succeed in our careers, there have been some serious conversations about how young men and women should balance careers with the expectations of families and society. For both of us, there is a clear understanding that our friendship must be tempered with steadfast care to ensure we succeed in our goals.

I believe it is to my credit that I have managed such conversations in French. Both Sophy and I are eager to be fluent in both languages. I must say that her encouragement of this, and of my medical studies, has been a spur to do well.

During the summer I managed to get to Toronto and Kingston with a couple of my student colleagues. Having come so far from England, I did not wish to miss seeing more of Canada.

Did the British newspapers report much on the fire

in Saint John, New Brunswick, in late June? Much of the town was destroyed, including some boats, even small ships. Very bad for that community. We also have news now that Treaty Number 7 has been signed with the Blackfoot Indians. Their territory is on the Bow River in the Northwest Territories, and will probably be on the route of the transcontinental railway. There is some recognition that Canada does not want to have conflict with the native people if the railway is to succeed.

I must run now if I am to catch the post today.

With deepest affection,
Your son,

George Carr

PS. Congratulations to Hilda and my best wishes for a safe pregnancy. It is hard for me to think of her as a married lady.

Illness and decline

The last four years of the 1870s were, from the point of my engineering consultancy, rather steady. We arranged that Johnson's apprenticeship would be continued with a small company that used Greathead's ideas for tunnelling, and he was much pleased with this new engagement. It is interesting that a decade later Parks and I started to get more than our usual amount of calculation work relating to mines and tunnels, and subsequently discovered that it was due to Johnson. He was not touting for business for us, but would relate our generosity in finding him an alternative apprenticeship and the kind of work we were expert in conducting, and in due course we would often get some assignments. If I were to estimate the value of these assignments, they would be several times the value of Johnson's work, had he stayed our apprentice.

Of course, another factor in the growth of business concerning mines and tunnels was the amount of activity of this nature, and the publicity surrounding various disasters. Sad to say, and I have said it already, disasters are often good for the profits of consulting engineers. The 207 deaths at Blantyre in October '77 and 189 at Wood Pit, Haydock, in June '78 made large headlines and spawned new discussions of mine safety.

Fires and shipwrecks, too, were much in the news. We got less work from these, of course, as there was rarely an obvious set of figures to support arguments, though I often wondered what standards could be set to limit the explosion of dust, as in the Washburn Mill explosion in Minneapolis, where a series of flour dust explosions destroyed three mills, including the largest in the world on May 2, 1878.

With the departure of Johnson, Parks and I mostly did our calculations ourselves, which on occasions led to some late nights and mild complaints from our wives. From time to time we would engage schoolboys in their upper years, mostly from the Tonbridge School.

However, they would have limited hours to devote to our work, and generally needed training, so the experience was of mixed benefit to us. Sometimes Geraldine would help out – her bookkeeping background lent itself to some of the tasks – and she was quite helpful in reading over our reports to catch silly errors.

It was on one such occasion, late in 1878, that we first had a suspicion that all was not well with her health. She had edited one of our reports, and after dinner we decided to go to bed early. She complained of pain when we tried to enjoy conjugal pleasures, and a few days later also noted that she sometimes "smelled" from that part of her body. I bit my tongue as she told me and did not relate Dr. Samuel Johnson's distinction between "stink" and "smell", for it was clear that my wife was distressed.

Geraldine consulted a local physician, Dr. Jacobsen, who seemed to me less than fully appreciative of her concerns and fobbed her off with a recommendation of vinegar douches. For about half a year, she tried this, with only superficial results, before the symptoms became more pronounced.

This time, late in 1878, despite the cost, we decided to consult Sir Thomas Spencer Wells in London who was surgeon to the Royal Family. He fairly quickly diagnosed a cancer of the womb, for which he said the removal of the womb might – though he cautioned it was far from certain – offer a cure, and the only one he knew to provide any hope. But even if Geraldine submitted to the knife, the cancer might return elsewhere. And he added that his opinion was that the tumour was likely at a stage where his efforts might only serve to add to my wife's distress.

Indeed, he warned that we might waste what time Geraldine had left in a frustrating, expensive, painful, and ultimately futile search for an alternative. He advised that we should try to get the best care we could for my wife, and use laudanum to ease the pain. He suggested we take a few – a very few – days to decide if we wanted him to attempt the surgery.

Needless to say, we came home feeling very low. Geraldine was very frightened of the surgery, so we informed Dr. Wells that we would not go ahead with it.

My mood was such that it took me a week to write to George, and it was only when I realized he may know some doctors at McGill who may have additional specialist information that I did so. In the letter I asked him to enquire discreetly. As it turned out, his answer was that Wells was extremely highly regarded. His surgical technique and regard for his patients was considered among the best. Many surgeons were given to a poor view of their patients. George thought that Wells' had as much experience as any doctor on earth with his mother's complaint, and the prognosis he offered was as good – or in this case bad – as could be had.

Moreover, George pointed out that Dr. Campbell de Morgan had recently proposed that a serious problem with cancers was that they often spread, and that cancers of the womb

were often not detected very early. Indeed, we knew that Geraldine had pursued a worthless diagnosis from Jacobsen for some time. The rot could already be elsewhere in Geraldine's body.

George was anxious to interrupt his studies and come home to assist in what we anticipated would be a steady and likely difficult decline. To my surprise, Geraldine was horrified. She immediately took pen to paper.

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent
December 16, 1878

Dear George,

While I appreciate your concern and love for me, I firmly believe nothing you can do by coming back from Canada will do anyone an iota of good. You will be wasting time and money to be miserable, and that will upset your Father and will not give me any relief from my own troubles.

Since I so sincerely believe this, let me make it quite clear that should you return here, I will not speak to you. It is not that I do not love you. Precisely the opposite. If you come back home to be with me at my end, you will ruin your studies and possibly miss the career upon which you have embarked. Please show me your love by making a success of yourself, even make a memorial to me of that very success. That will give me consolation.

Your loving mother,

Geraldine Carr

* * *

This exchange of letters with George about his coming back to be with his mother at her deathbed seemed to energize Geraldine. A few days before Christmas, she said to me, "Richard. I am now resigned that I shall likely not live much more than a few months or possibly a year. It would give me great satisfaction if we could use that time in a way that is not maudlin and dark. Rather I would like to do a few things that could give me comfort and

pleasure of a quiet sort. Possibly go a few places that my condition will allow. Would you indulge me that?"

Even had I not agreed with Geraldine's sentiments, I could not have refused. Over the Christmas period we made a list of places and activities of interest. For my part, recognizing that fulfilling Geraldine's wishes could cut into my working time, I wrote to Kirkaldy after talking with Parks, asking if he knew of a competent apprentice about to finish who we could offer work.

In this manner, the consultancy engaged Mr. Henry Armstrong. He was a few months from finishing his apprenticeship with an associate of Kirkaldy. He made no bones about liking the calculation work we did, and told us that he did not intend to make that his career, but wanted to get a year or so experience in a good firm so that he would be able to be good at the calculations, even if he didn't enjoy them, because he appreciated their necessity for good engineering.

Parks and I took him at his word, and he proved able enough, making very few errors, though not as fast as we really would like. Nevertheless, he made possible some brief interludes of satisfaction for Geraldine during 1879, or at least the first 9 months of it, after which she was more or less confined to bed. Indeed, in the last quarter of the year I was able to spend more time working than in previous years, albeit I chose not to travel away from Tunbridge Wells further than London, and that only for the duration of a day. Near the end of the year, I heard of an interesting job for Henry, and he left us to pursue his career. However, once again, I later observed that we would get occasional commissions that almost certainly resulted from his agency on our behalf.

About this same time, I recognized that Parks would have increased responsibilities, and we agreed he would become a partner in the consultancy. I gave him a 20% stake, and we agreed that he could purchase a higher share in the future based on an evaluation of the consultancy, but he would keep his salary for the time being. This has turned out to be a most happy collaboration.

When Armstrong was about to leave, I let Parks arrange another apprentice, and we got Victor Crane, who was about fifteen when he came to us. He has worked out well also, though a very quiet fellow.

I was fortunate to have saved a reasonable amount of money in the decade we had been living in England, and our income was also relatively stable. Most people in my position would have more than two household servants. Up until this point, Geraldine had looked after a lot of the domestic arrangements, including taking the lead role in the kitchen. Realizing that this would not be able to continue very long, I asked Hilda and Betty to make enquiries.

In most households, the cook would be superior to the maids, but in our case, especially given that Hilda had been with us since we moved into the house, we wanted her to be in

charge. Thus we started, at least to outsiders, to call her our housekeeper. In the course of time, and since we paid our indoor staff equally, the titles were not pertinent since the work was shared.

Thus Mrs. Baldock came to work for us and indeed, to live in along with Betty, while Hilda lived out with her husband Roger Parks. We were most fortunate that the three women got along well, and there have been very few occasions of discord, despite the inevitable frustrations of dealing with others in close proximity.

We actually had one other staff member, Mr. Rickett, our odd-job man who worked for us one day a week or sometimes extra as needed. He kept the yard in order and the fabric of the building in good repair without any direct requests. He had, of course, first worked for us when we bought *Sans Pareil*.

* * *

Given that Geraldine's time was limited and that it was mid-winter, I suggested that she might want to go to a warmer climate, possibly the Mediterranean.

"I would indeed like that, Richard, but I fear that should my decline be faster than anticipated, I would not like to be very ill while far from home. Let us consider more proximate possibilities."

"It is a pity there is not a tropical island on the South Eastern Railway," I rejoined.

"Oh. What a good idea."

I was nonplussed, and said, "Why is a fantasy such a good idea?"

"Because there is the Palm House at Kew Gardens. I have never been there." She managed a small laugh, the first for some weeks.

Thus Kew, and in particular its heated greenhouses, became our first destination. To avoid overtiring Geraldine we took accommodation at a guest house near to the main entrance of the botanical gardens and made two visits, one in the afternoon we arrived, the other the next morning. I also arranged the hire of a bath chair so Geraldine would not have to walk everywhere.

That was mid-January, 1879. Given the rarity of similar opportunities, I suggested we might manage concerts or theatre if Geraldine felt sufficiently well to do so. We did manage a matinee concert in London, with an overnight stay at a hotel so the journey would take place over two days, and also a local dramatic production and some local musical events.

We spent Easter at Worthing. The weather was still cool enough that we did not venture out a lot, but Geraldine said she enjoyed our time there, especially as the hotel had a room they pretentiously called the Winter Garden in which there were performances of small

musical groups. We were twice favoured by quite warm days, and used these to visit the pier, for which I again used a bath chair to save Geraldine's energy.

I found it important to ensure Geraldine had a good range of reading material, and a couple of local booksellers did quite well out of me that year. Not that I begrudged this. Books were a very good value for the pleasure they gave Geraldine, and as she got less well, I made enquiries and was able to engage some local schoolgirls to come and read to her. Later on, as the end drew near, I noticed that Amelia – Miss Jenkins as she was to us then – would read to Geraldine, and she did this unbidden, a sign of her generosity and sensitivity to the needs of others, and quite beyond the requirements of her nursing engagement.

* * *

As we had lost faith in Dr. Jacobsen, I contacted a Dr. Barnaby to come on a fortnightly basis to attend to Geraldine and suggest ways to make her most comfortable. I found his most admirable quality is that he asked gentle but leading questions to elicit her complaints, then gave a straightforward opinion of the possible options and their pros and cons. There was not, of course, a lot to be done, but he did give us advice on laudanum and morphine and their cautious use for maximum effect in reducing pain while leaving the mind clear. He also ventured that it was his opinion that even a small amount of exercise and movement would help to avoid bed sores and digestive discomfort.

Barnaby was also the person who recommended Amelia when, in September, it was clear that Geraldine needed a nurse's help in managing her bodily functions. Fortunately, Amelia was soon available, being about to leave a client who had recently delivered a child. Even now, some 15 years on, I feel the relief of having such competent help in the house.

Amelia was very good at teaching Hilda and Betty how to assist Geraldine should she be away. While she slept in the house, indeed in George's old room, her terms of engagement allowed her a goodly amount of free time when there was no crisis. In such times of crisis she would be expected to stay, but naturally at a premium rate of pay. As it turned out, Geraldine's decline was rather predictable, and there was no drama, save that of a life slipping away.

* * *

Christmas was a rather difficult time for the household, but my family who lived nearby proved to be most resourceful and generous. My sister Maude came to see me one day in mid-December and asked me to assist her with some errand in the High Street. I was going anyway to see Parks, so we started off down the hill.

"Now Richard, the Christmas time will be very difficult for both you and Geraldine if you are stuck in and brood. We all know the end is not far off, but for Geraldine's sake alone it is important to have some good cheer, even if it is on a modest scale. I actually don't have an errand, but I wanted to talk to you where we would not be overheard and upset Geraldine. She is probably feeling poorly enough."

“What do you suggest?” I asked, rather unsure how I would receive the answer.

“I thought we might bring Christmas dinner to you. It can be prepared mostly in advance if we don’t insist on the usual fare but think of dishes that are either cold or can be reheated easily. You can give the staff a couple of days off, and I’ll stay over from Christmas Eve to the day after Boxing Day to help out, especially if Miss Jenkins gives me some instruction.

James will stay over with me probably for the full time, and we’ll find a place for Ethel – she can be a big help. The others can come on Christmas Day. They’re old enough to take the train or hitch up a cart.

And I’ll be in touch with some of the cousins and arrange for them to come in ones and twos so Geraldine can see them but not have a mob to tire her out.”

“Maude. I greatly appreciate this, and I’m sure Geraldine will too. She is getting quite frail now. I don’t think she will last long, but Barnaby says that while the general timetable of cancer is well-known, there is a lot of variation in the particular.”

“And of yourself, Richard. Are you watching that you do not become overtired or low of spirit?”

“I’m doing my best. That is about it. Marking time, I fear, and not very happy about that.”

“Not surprising. But do try to keep positive and look after yourself. You cannot be a help to Geraldine otherwise.”

* * *

Thus it was that we had a quite congenial Christmas. I won’t say Merry, because the circumstances rather precluded that, but there were smiles and good wishes. The eldest of Maude’s children, Alfred, had a cold and Maude told him to stay home. James Gregory was studying to be a Methodist preacher, so was involved with the chapel, but he came on Boxing Day for a while.

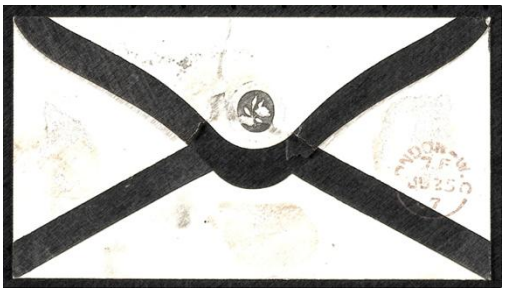
Somehow there was a fairly steady but gentle parade of visitors who – I suspect Maude’s hand here – were friendly and supportive but did not overstay a sensible half hour. Geraldine seemed genuinely cheered by them. Nobody asked how she was, with one annoying exception, but simply gave their good wishes and perhaps a small gift or treat. We had enough mince pies to feed a battalion.

The vicar even dropped by on Boxing Day. He had sent a note to suggest a time and ask it if were appropriate. Geraldine was cheered by his visit, and he mentioned that a number of parishioners had asked after her. Sadly, we had not been to church since the end of October, and not to regular service since August, after which we went to Evensong, which Geraldine found less tiring.

On Monday, December 29, the afternoon papers had the news of the collapse of the Tay Bridge. It had only opened in the summer of the previous year, at which time it was the longest bridge in the world. The journalists made conjectures – some very fanciful indeed – as to the cause of the disaster, which was believed to have claimed 59 lives, though only 46 bodies were ever found.

Eventually I learned a great deal more about the disaster, as Kirkaldy and I were commissioned to test materials and to verify calculations. The first requests for this work came through before the end of January 1880, but these were only preliminary verifications of the figures used in the design by Sir Thomas Bouch. Later in the year, we were asked to provide estimates of the wind loading, as there was a veritable hurricane blowing on the night of the disaster.

Mourning



It was noon on Monday, March 2, 1880. Geraldine was dead. She had woken and taken a little hot milk on Sunday morning that Miss Jenkins helped her to drink, then fell back into a sleep or coma. This morning I went into her sick-room at around eight, Geraldine stirred briefly, then her breathing stopped. Miss Jenkins said,

“Mr. Carr. I’m afraid she’s gone. May I check her pulse and eyes to be sure?”

“Yes. Of course.” I replied, not really knowing how I should behave.

Miss Jenkins felt at Geraldine’s throat, then she brought up the lamp and checked each eye. She put the lamp down and asked,

“Would you like me to contact the undertaker, sir?”

“If you would, Miss Jenkins, I would be much obliged. My wife’s passing was not unanticipated, and I do not at this moment have much sense of emotion. However, she was very dear to me. I think I will go to my office and write to our son and some other people who should be informed, or at least start those letters and add the information about the funeral later.”

“If I may say so, Mr. Carr, I think it a good idea to keep busy with tasks that can be accomplished without too much thought. I have, on a number of occasions, noted that grief becomes more intense if one does not observe the routines and rituals of life. And may I add my personal sympathies for your loss. From some of the things she said, there was a strong and affectionate bond between you both. However, she did say to me that she hoped you would keep on with your life and not let her passing interfere with your work or your eventual happiness. I apologize if this is speaking out of turn.”

“No. Your words almost have Geraldine’s voice. She was immensely practical, a matter that gave me inordinate pride in her and added to my affection for her. And now it is I who have perhaps spoken out of place, since it is generally not thought that practicality can be part of loving.”

* * *

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent
March 2, 1880

Dear George,

I have the sad duty to tell you mother is dead. Clearly
as a student of medicine, this will not be unexpected,
but I find the event nonetheless immensely saddening.
I will try to write more later, but at this moment
do not feel that I can.

With deepest affection,
Your father,

Richard Carr

* * *

Mr. Hickmott, the undertaker, did not take long to arrive. Given that his premises were nearby on Grove Hill Road, he did not have far to come, and indeed it turned out that he had walked.

"Very sorry for your loss, Mr. Carr. I came straight away and, if I may view the deceased, I will go back to my premises and send out the conveying waggon. It is more discreet and will allow you time to make proper announcements and reduce the occasion for idle talk in the neighbourhood."

Since Geraldine's death was anticipated, I had already been in discussion with Mr. Hickmott and also with the vicar. Hickmott would take Geraldine's body and there would be a funeral at Trinity in a few days, followed by burial in the nearby Tunbridge Wells Cemetery. The original Trinity burial ground, called Woodbury Park Cemetery, was small and had filled up rather quickly, so the new place of interment had only opened in 1873.

There had been discussion of a headstone. I have seen too many of these toppled by passage of time or visits of vandals, and instead asserted that Geraldine would have a very plain flat stone with her name and her birth and death dates. Despite some quite pointed suggestions that I should add an epigram (at a fee per letter, of course), I kept to my decision and have not regretted it. The dead live more in the memories of those who loved them than by inscriptions in mossy stone.

* * *

The funeral took place on the Friday following Geraldine's passing. I was quite surprised at the number of people who came. It appeared that Geraldine had made a favourable impression on many people in the town. There were, of course, a goodly number of my family and their associates who knew me, as well as a few of my friends who dropped their work and came. I was especially happy to see my friend Lawrence Stone and his wife Judith.

We had the funeral service at Trinity, then there was a cortège to the cemetery, and family and a few friends were invited back to the house where a small reception had been set up. I had told Lawrence that he and Judith could stay overnight, and they accepted.

I was most appreciative of their company. They helped maintain conversation about many world events and about different aspects of life. Geraldine was acknowledged in our discourse – I had made it clear that I did not wish to avoid mention of her.

"If you do not find it painful, then it is much easier for all concerned." Judith said very calmly.

"I agree. In fact avoiding mention would be more tiring," I added.

Cook provided a pleasant supper of meat pie, potatoes and vegetables with an apple cobbler and custard. I surprised myself by having a good appetite. Even more surprising, I slept well that night, and after a hearty breakfast walked my friends to the train.

The afternoon and evening of the Saturday was more of a challenge, possibly because I wasn't quite sure what I should do. I missed Geraldine, but the pain of my grief was not continuous. It was sudden and often very small recollections, or little things I wanted to tell her, then could not. In order to avoid such thoughts, I found solace in my calculations for clients. I suspect the next few months were the most productive of my life in that direction.

* * *

253 Avenue Haute Ecluse
Montreal, Quebec

March 26, 1880

Dear Father,

I am very sorry to hear about Mother. Of course,
in my medical studies, I have encountered the
cancer with which she was unfortunate to be
afflicted, and it is universally fatal, so I
had no illusions that there would be a different

outcome. Nevertheless, it is painful to realize I will not see Mother again. At this moment, being so far away, I do not believe I have quite absorbed that truth. I am certain it is much harder for you, and you can be sure you are in my thoughts and prayers.

I had hoped she would last longer. Sophy will never have the chance to meet her, and we had discussed how we might afford a passage this summer, despite the strictures of my studies. These are now at the stage of the practical residency. I had thought of possibly pursuing a surgical career, but feel I can perhaps do more good in providing a physician's care to people in a new area. It looks like there will soon truly be a railway across to the Pacific, and there will be new cities along the route. However, I still have some time to think about this.

With deepest affection,
Your son,

George Carr
with warmest sympathies from Sophy

* * *

The rest of 1880 was, I fear, all work and no play, and Richard was a dull boy.

Actually, I lie, since I betook myself on a holiday for a week at the end of July of 1880. Rummaging in the sloped storage area of the attic I found a modest valise and a sort of haversack I had acquired when in Canada following a design by one of the Algonquin Indian porters we employed when surveying.

I went to Conway – or Conwy as spelled by the local Welsh – and spent two nights there, then put my valise on the train to Bangor while I walked most of a day to the same destination where I stayed a further two days. Then I came home via two nights in Swindon where I visited Lawrence and Judith and the two children still at home.

You may say it was a busman's holiday, for in Conway I went to see Thomas Telford's suspension bridge, which was the first of its type. There was also the railway bridge by

Robert Stephenson, which he designed in collaboration with William Fairbairn and Eaton Hodgkinson. The last named engineer inspired a lot of my own work, for he was one of the first to apply mathematics and experimentation to engineering, and Fairbairn was the one who put those ideas into practise. In particular, Stephenson and Fairbairn applied similar ideas to the Britannia Bridge across the Menai Strait, where the tube had to be high enough for a full-rigged warship to sail under it. And just a mile away there was the Menai Suspension Bridge, another Telford design.

And then to Swindon where I could look at locomotives with Lawrence. Perhaps I was rather dull company that year. However, the walks I took were good for my constitution. I was alone, but somehow not truly lonely. As I walked, I found myself silently talking to Geraldine. I know that it can be considered a sign of mental instability to do so, but over the years I have learned that many people talk to their deceased loved ones. If you wish to press the issue, I will suggest you commit to Bedlam all those praying to dead saints.

Indeed, I am sure my conversations, all one-sided of course, with my deceased spouse were a taking stock and tallying of our life together, a development of perspective on the jumble of details great and small that made up our life together.

In the solitary days before I went to Swindon, I walked, I made notes and sketches of the bridges and their surroundings, I ate simply but well and found I slept without dreams. Possibly my dreams were daydreams, recollections of fragments of memory to be set in a landscape of sea and hills and greenery that is North Wales.

* * *

I got to Swindon on the Thursday evening. Judith and Lawrence had two maids, but Judith liked to run her own kitchen. She packed us off to the local public house with “Dinner will be at a quarter-past seven, so go along you two and find yourself a pint of cider or ale and talk about your locomotives and bridges so you can come home and talk with me of other things.”

That is what we did. Dinner was most pleasant. Their remaining son and daughter – Andrew and Joan – were almost adults now, and both had finished their schooling. Andrew had won a scholarship to the University of Glasgow to follow studies in engineering. Joan was going to study nursing at the school that Florence Nightingale had established. Both were polite and articulate, but Judith excused them after the pudding. It was summer, and there was a local fair not far away. “Make sure you stay together. I don’t want Joan to be on her own with all the fairground people about.” Judith cautioned.

“Don’t worry mother. I have seen them in the town, and I will keep close to Joan, assuming she does not run off,” Andrew said.

“Beastly brother. You know I won’t run off.” Joan protested as they skipped away.

Lawrence poured us each a brandy, though Judith waved the bottle away after a tiny splash was in her glass.

“He will stay close to her. They are good to each other. We are very fortunate.” Lawrence said. “There are always unsavoury people in a railway town, and they both are aware of that, and I’ve overheard them discussing how to quietly signal each other that they require the support of the other.”

“Now, how about you, Richard?” Judith said. “Are you managing all right?”

I took a moment to sip my brandy, then replied, “Yes, I believe so. People rather expect me to be sombre or distressed, but my sincere opinion is that such a demeanour would not be respectful of Geraldine and her memory. I have removed the black arm-band at the beginning of June. I am not in any way out in society shopping for a new wife, but I am carrying on in my life, and especially in my work, which I find helpful in giving structure and purpose to each day.

In the past few days I have had a chance to walk and ruminate on the life Geraldine and I had together, and to, in some way at least, paint in my mind and memory a panorama of that life. It has been a good few days. I still miss Geraldine, but I no longer fear that I might be so oppressed by my loss that I cannot carry on. Indeed, I have been fortunate that such a state of mind has not visited me.”

“I am glad to hear you speak so,” Lawrence said. “Grief can immobilize some people. I would not have that afflict you. Your work is valued and valuable. Some of the projects you have been asked to verify or comment upon are likely to be important milestones in the development of engineering and industry.”

“But tonight we will toast Richard’s future,” Judith interrupted. “You were told to leave the locomotives in the tavern, and I insist you do so. To Richard’s future!”

I could drink to that.

“And for Saturday we have a treat. We managed to get five tickets for the *Pirates of Penzance* at the *Opera Comique* on the Strand,” Judith said. “I’m glad Andrew and Joan didn’t spoil the surprise. I know you probably intended to get home a little earlier, but I believe you can put your valise in Left Luggage and take the last train to Tunbridge Wells. We already checked the schedule.”

I could certainly do that, and it would be a novelty. “Yes. What a good idea! I’ll telegraph in the morning so the maids leave the door latch so that I can get in with my key and don’t have to wake them.”

* * *

As we rode the train to London the next day, I was cautious to obey my hostess and talk of things other than engineering.

“Did you read about the frozen mutton from Australia arriving in London aboard the *Strathleven*?” I asked, intending the question for Judith.

“I did read that back in February,” said Lawrence, “but Judith thinks we may not know if the meat is good or not. It’s not been done before, so the risks are a bit of a lottery. But I suppose it will come, and it will mean competition for our local farmers if the price is much lower or the product extremely good.”

“Yes. I’d not like to see our local meat disappear,” Judith added.

“It’s a dicey issue for the government, I fear,” I said, giving voice to a nagging intellectual discomfort I’d been pondering for the last few months. “If we block or tax the Empire production, then we are as good as telling them they aren’t proper and equal partners in the great British enterprise. And if we allow a free-for-all, the lower costs of production in other parts of the world will destroy the local industry. So there’s a delicate balancing act.”

“I agree,” said Lawrence. “We need to keep the Empire happy, but not at the cost of beggaring our home population.”

“Not that the government seemed too concerned in the time of the Potato Famine. One hopes some lessons were learned, but I fear otherwise.”

We chatted on about the world and its affairs, getting to London in good time to find a pleasant meal in a modest restaurant then join the crowd at the theatre. I very much enjoyed the performance, and returned to Tunbridge Wells in good humour.

* * *

How else did I live for the year and a bit after Geraldine died?

There was plenty of work for me. The collapse of the Tay Bridge on 28 December 1879, as already briefly mentioned, caused a goodly panic among many engineers. Kirkaldy got quite a bit of work testing material from the wreckage, and some calculations and organization of data flowed through to me and my partner Parks and our apprentice Crane.

Sir Thomas Bouch, who designed the bridge and was knighted for it, came in for quite a lot of criticism. He had charged for some work overseeing the materials, but they proved to be of indifferent and variable quality, and the execution of manufacture and assembly had many lapses of attention and effort. In particular, it appeared that the casting of the vertical supports was often imperfect, but that the foreman would fill gas holes that were visible with something called "Beaumont’s Egg" – probably a corruption of the French word Beaumontage – a mixture of iron filings and cement to conceal the corruption.

There were further short-cuts in the rivet holes, leaving them more conical than cylindrical, so that there were uneven forces on the rivets and bolts, almost ensuring that the fastenings would be cut or pushed out by the portion of the hole where the pressure was greatest.

There was also evidence that many of the fastenings were coming loose and repairs were done imperfectly. This was not well reported. Had it been, substantive remediation might have been put in process.

Also dangerously, Bouch ignored the force of the wind on the structure, a force I now regularly get to calculate and call wind loading. There was a gale blowing the night of the disaster. Moreover, the train drivers would apparently go faster than the 25 mph limitation. In particular, northbound trains would get up to about 40 mph to keep on schedule, then would brake as they were to come off the bridge, which was curved, imparting severe loads on the bridge structure that were not part of the design consideration.

All of these issues came out in the report of the judicial committee of enquiry which was released at the end of June – a surprisingly quick result reflective of the general importance of the findings. However, it was not a unanimous report, as the chair, Henry Rothery, Commissioner of Wrecks, submitted a minority report, while Colonel Yolland (Inspector of Railways) and William Barlow, President of the Institution of Civil Engineers, provided the majority opinion. Their main opinions were that the materials were imperfect, but largely satisfactory for their purpose apart from wind loading, had they been well-maintained. The reports differed mostly in how they considered the failure proceeded. To my eyes, that is irrelevant to the dead and their families. It is essentially a matter of interest for engineers, but does not change the outcome unless it reveals particular lessons for the future.

Bouch was, at the time of the disaster, working on the design of a bridge to cross the Firth of Forth, and a leading contender for its ultimate construction. In the maelstrom of activity and debate following the Tay Bridge collapse, he was removed from consideration. Indeed, he died October 30, 1880, essentially a victim of his own bridge.

Clearly new ideas would be needed to replace the Tay Bridge and to build the Forth crossing. I was not heavily involved, nor was Kirkaldy, but we did get fairly regular assignments that helped both our businesses to prosper.

During 1880 I also had work from J & G Thomson of Clydebank, who were building the steamship *Servia* for Cunard. This was the first ship built entirely of steel, and there had been a decision to use the admiralty specification that there be watertight bulkheads dividing the ship into a dozen compartments. With the bulkheads sealed, any two compartments could be flooded and the ship would stay afloat. They also built in a double bottom, with over four feet between so that the volume could be flooded as ballast to maintain the stability of the ship if lightly loaded. It was, furthermore, intended as a passenger carrier, not the mixed passenger-cargo ship common at the time.

My tasks were generally to calculate if the buoyancy were sufficient depending on which compartments might be flooded. Moreover, I had some considerable computation and estimation to do in the case that the end compartments were flooded, since in a swell the ship might "hog", with the ends dropping and breaking it in two. The other bad case might be two middle compartments, resulting in a "sag" that would also risk a split.

While I did not get any work concerning the propulsion of the ship, I was also interested in the efficiency of the triple crank engine and the seven furnaces, each 18 feet in diameter. The engine had one 72 inch high pressure piston and two 100 inch lower pressure ones, each with a stroke of 78 inches. In service, the ship was not exceptionally fast, but proved reliable and consistent in her performance.

I also did not get to work on the electric lighting, using Edison's system, which was used in the public and engineering parts of the ship, but I do not believe this was in the cabins.

Those, of course, were the projects that were popular with the newspapers. I had much other work of a more prosaic nature that kept Parks and I busy enough that – as I have already noted – we would sometimes engage schoolboys in the upper years to assist with the calculations. In this, I used my status as an old boy of Tonbridge School. Indeed, that is how I had engaged Parks and Johnson.

Our biggest problem in using such boys was that we had to instruct them. We managed to develop some charts – perhaps templates would be a better word – that showed how to lay out certain of our calculations. This helped, but there was still a degree of close supervision required.

The other difficulty was that they grew up and moved away.

"It's a pity we just get them efficient and they go off to the university or to find their fortune elsewhere," Parks complained one day. Crane, overhearing, said "Pity nobody hires women. My mother was a bookkeeper before she married my father, but she still does the books. I'll bet there are other women like her who can do calculations and would love to earn some money."

The conversation drifted into other territory and we got back to our work. However, two days later, Parks came to me and said, "You know, there's no law against hiring women, and Crane's suggestion might be a good one. I talked it over with Hilda, and she said that several of her married friends would die for the chance to earn a little money, especially if the hours were not too rigidly specified, since they have children in school. There may be others wanting to work from time to time."

The fact we had a local newspaper saved us expense of paying for an item in a national newspaper while seeking help locally. The Kent and Sussex Courier had only been publishing since 1873. We arranged to publish an advertisement that read:

Occasional calculation help wanted

A local firm of consulting engineers
needs occasional help with arithmetic
for calculations.

Flexible hours.

Training provided.

Applications welcome from men or women.

Apply in writing to

R. Carr and Associates,
High Street,
Tunbridge Wells

We got a strange mix of replies, but among them were a half dozen people that we eventually employed from time to time. Three were married women. Margaret Campbell was the wife of a nonconformist minister who had wanted to study astronomy, but found the academic doors closed to her. Anna Komarova was an exile with her husband from one of the Russian pogroms. She turned out to be the most capable of our calculators. Her husband, I fear, was volatile and unreliable, and gave her much cause for worry. Joan Brown was the wife of a school teacher. She had been a teacher herself, but was dismissed upon her marriage. We had one single woman apply, Rosemary Crouch, who was the paid companion to an elderly lady. Several young men applied who wanted to augment their income by doing calculations in the evening.

It turned out that the married ladies were the most useful to us. They were conscientious and they maintained a stable address. Miss Crouch apparently tried to do the calculations while her employer was sleeping, but this did not allow the sort of concentrated attention to the figures our work entailed, and we only employed her twice. The young men were often difficult to contact when we had work. When we needed help, it was quite commonly a job with a deadline, and we could not leave a message that might get answered “After the weekend”.

Eventually, we let Komarova manage this occasional work, which became more or less a stable income for her as we received increasing numbers of assignments. She would take the lion’s share of the tasks and apportion the rest to anyone else with whom she shared the work, if that were needed, and we allowed her a small commission for handling that enterprise. Over time there were a few schoolboys and a couple of other married ladies. She one time told me that the great advantage of working on the figures was that her Russian accent, which was very thick, was no obstacle to doing the work. Moreover, I

believe she became very good friends with Mrs. Brown. Indeed, I suspect there was a certain level of informal shuffling of the work to enable them to deal with the domestic crises children and husbands could create. However, as long as the work was done, we did not care.

We paid by the calculation, and so as long as deadlines were met we did not care how efficient our workers were. Parks devised a nice system where he and Komarova would go over the tasks for an hour or two and they would set up a template for the calculations. She would be paid by the hour for this part of the work. They would also see how long Komarova took to complete three calculations and estimate a per-calculation value, rounding it up to make the job attractive. Only once did we have to revisit the estimated rate of remuneration as I recall.

* * *

253 Avenue Haute Ecluse
Montreal, Quebec

December 25, 1880

Dear Father,

Here it is Christmas again. I received your card and letter, and the generous bank draft. This will be welcome, even if it is not strictly needed. My residency has been going well, but it does not allow me time to find paid work, so my savings are becoming depleted.

Today I am at the house of Sophy's parents. They treat me almost as a member of the family, for which I am most grateful. I try to repay them as best I can, but they will not accept any money. However, I am able to provide some labour to cut and stack the firewood, and when I am here, I tend the stoves and do other jobs that I see need to be done.

My residency has been very interesting, but also quite challenging, especially when I work the wards that serve the poorer members of society. It has turned out that my knowledge of the local dialect has served me well, and saves a good deal of time that other residents must take to get case history information through translation. Often the people translating do not have the vocabulary to give precise information needed for diagnosis and treatment. Sadly, many of our cases are beyond treatment.

There is much to be done to improve our tools. However, I cannot complain that my medical education has been anything but first class. McGill will, I believe, become well-known for its medical school. I have, for example, been most impressed by the staff, particularly, Dr. William Osler, who started a journal club where we discuss articles on medicine and their merits.

I sincerely hope that 1881 will prove a happier year for you. From your letters, it is clear that you are not allowing grief to overcome your ability to work and to remain in society, but I know that there must be times that it is difficult to maintain that energy of spirit.

With deepest affection,
Your son,

George Carr
with greetings from Sophy

Courtship

As sleep once more overtook my mind, I was trying to picture the exact circumstances of how I became re-acquainted with Amelia. Why is it some details are so clear, while others cannot be brought into focus?

Hilda and Roger Parks had been delivered of their second child on May 11, a little girl they named Mary. I was godfather to both her and Valentine, born over three years before on February 14. Hence the name, though not many people are aware of that saint's feast-day. Hilda's confinement was not a great difficulty for me, since my needs were fairly simple and could be satisfied by either cook or Betty. However, I saw no need to reduce my household, as it was pleasant to have a well-kept home and good meals, and I could easily afford their wages. Also I was aware that the economic situation was such that jobs were valued, and my staff were, in a sense, friends.

Hilda recommenced her daily schedule in mid-June, so the domestic situation was restored, and summer had progressed quite unremarkably. The Bank Holiday Monday, which must have been August 2, was a reasonably nice day. I had spent the Sunday with my sister Maude's family in Tonbridge. We rented a rowboat on the Medway and had a picnic along the river. I could have taken myself away for a trip somewhere Monday, but elected to stay in Tunbridge Wells. I don't remember why I did so, nor do I recall any of my morning activities.

However, about 11 o'clock I must have decided to take a walk up on the Commons. It was not far. Possibly ten or fifteen minutes to the Wellington Rocks where little boys were clambering over the smooth ramparts of stone that nature had somehow dropped there. The so-called High Rocks were further away. There was a bench that had just one person on it, and I sat down, suddenly recognizing the other occupant.

"Miss Jenkins! How pleasant to meet you here."

"Mr. Carr. I have wondered how you were doing."

"I seem to be managing, and my consultancy is busy. Are you still nursing people in town here?"

“Yes. I seem to have been doing more confinements lately, which usually have happy outcomes.”

“Indeed. I had wondered how a young woman like yourself could deal with a steady sequence of declines and deaths.”

“In truth, I have not found dealing with patients who are at the end of life as bleak as is commonly believed or discussed. At least, I have very little difficulty with my feelings about the patients. I find it more taxing on some occasions to cope with the families and people close to the deceased.”

Without thinking, I said, “Did I make you anxious? I was rather frozen, I fear, and while able to act by rote in daily tasks, and to a great extent in my professional activities, was not necessarily very competent in social matters.”

“On the contrary, you made my time at the end of Mrs. Carr’s life quite calm and easy. I’m sure that it was not so for your inner self. It never is, I fear.”

“Thank you for that. No. I found it quite unsettling that I seemed to have lost my harbour. I am only now becoming more balanced in my state of living.”

“That is good. Very good.”

We sat quietly but not uncomfortably for a few minutes, and on a whim I suggested “I was thinking of walking towards the Pantiles and seeing if there might be some lunch to be had there. Would you feel it impertinent of me to invite you to join me?”

“I will accept your invitation, but it is only about half-past eleven. I think we should take more exercise before then. Perhaps we should walk to Toad Rock then back to the Pantiles.”

“Certainly.” I agreed, and we headed off towards Rusthall. Without thinking, I made a loop of my arm and Miss Jenkins put her forearm through it. It was not until the evening that I wondered if she thought that forward of me. At the time it seemed both natural and correct. Indeed, it would perhaps have been unfriendly not to do so. Ah. Social conventions. They are forever a quicksand.

Our walk gave us a good appetite, and with many people about, we found lunch finally in the Sussex Arms beyond the Pantiles. I suggested we start with something to slake our thirst, and Miss Jenkins asked if she might have some cider, which was fortunately available. I decided to join her, and found it was a good choice for the day.

We both had the ploughman’s lunch, as it was too warm for a heavy meal. I cannot precisely remember our conversation. We talked a bit about the year’s events. Neither of us knew much about the Boers in Southern Africa, though they seemed to be rather competent at defending their land. We discussed Disraeli, who had died recently, and assessed his career

as a novelist and politician. Seemingly neither of us cared about the particular parties of politicians, but were concerned that they tried to do good in a practical and pragmatic way. Miss Jenkins asked me if I felt the railways were doing a good enough job of safety given accidents – if they could be called that – such as the Tay Bridge collapse. About this, of course, I was quite well informed and was surprised about how much of the technical detail Miss Jenkins quizzed me.

"But Mr. Carr, you must appreciate that with nursing, one has to be present for long periods of time with the patient who is often asleep or otherwise resting silently. This time weighs heavily unless there is a suitable activity. I read a great deal, and am quite attached to the newspapers. However, I find my opinions are still open to adjustment as I do not feel one can ever entirely accept what is printed as the truth, either full or even partial."

In turn, I asked her how she felt concerning some of the developments in medical science, in particular the germ theory of disease. I was most impressed that she had kept up reading and correspondence to try to maintain a currency in medical subjects that might affect her profession. It was clear she felt that the germ theory was worth pursuing, but that there was much work to be done and the present hypotheses were certain to need correction and adjustment and perhaps wholesale revision. Nevertheless, she avowed that the concept was almost certainly correct.

After lunch, I suggested that we indulge ourselves with an ice.

"What a very fine idea, Mr. Carr. However, I hope you will allow me to pay for them. I feel very strongly that women should have some independence of action in the economic sphere. I thank you heartily for lunch, but would feel that our shared day is more ... on a similar level if you would permit that."

I was somewhat taken aback by this declaration, but more in respect of the general habits of society. My own views were that women and men should be valued for their capabilities and actions, not for some category into which they were assigned by tradition and biology. So I replied "I will be happy to share an ice regardless of which of us pays for them. I come from a family where the women were partners in the work. I don't know if Geraldine told you how she ran a small business doing bookkeeping and correspondence for businesswomen running small concerns in Montreal."

"No. I did not know that. You will have to tell me more sometime. However, today after we finish our ices, I will have to return to my patient. That is a pity, as I can sincerely say today has been the most enjoyable I have had for some time."

"Thank you Miss Jenkins. I am happy to be able to say the same."

We ate our ices, and I wrote down the address where Miss Jenkins was working. I also wrote my address down, as she said she knew the house and how to get there, but could not recall the specific address. We parted laughing and I returned home with a light heart for the first time in about three years.

* * *

Deerhaven
Calverley Park Gardens
Tunbridge Wells, Kent
August 3, 1881

Dear Mr. Carr,

It is with sincere gratitude that I thank you for lunch yesterday and for your pleasant company. I have not had such an agreeable day in some years.

Yours sincerely,

Amelia Jenkins

* * *

I did not see Amelia again for about six weeks. Truthfully, I had been quite occupied with various projects which took me away from home, and also with my family in Tonbridge. However, I was home on September 11, and decided to go to church. I cannot say that I have a strong attachment to any particular faith, but rather that I have become accustomed to the fellowship that I have found from time to time. The Church of England, as long as the vicar is not too oppressive with the sermon, suits my tastes. I don't think I would be happy with the Catholic requirement of hebdomadal worship on the sabbath, though I did from time to time find myself in such churches while in Canada with Joseph Lefebvre when we were travelling. The Latin could, I suppose, make it easier to travel the world and feel part of some whole enterprise of the soul.

In any event, I took myself to church on the 11th. The service was unremarkable, though I recall that the sermon – on this occasion delivered by a visiting cleric who was a don at Oxford rather than our own vicar – was about hope. In particular, the message was that hope was to a large extent the responsibility of each of us, and that the Lord was more likely to give support to those who recognized that life required us to hope, quite beyond any religious commandment. That is, the gift of life had an unsaid demand of hope, and prayer was for the execution of ways to realize the aspirations of hope, not to bring hope itself. Possibly a message too subtle for many, but the sermon was quite concise and well-delivered.

During the rest of the service, the empty spaces beside me gave me cause for awkwardness. Since we had established ourselves in Tunbridge Wells, I had paid for spaces in a pew for myself, Geraldine and George, and the last two were not going to be present. My attendance was, of course, not regular – a further source of embarrassment. I should talk to the vicar

about this. I was happy to continue a donation, but would prefer the seats to be filled by worshippers.

When the service ended, I noticed Amelia leaving the church ahead of me. Fortunately, she stopped to share a few words with the vicar, and I was able to go by and wait for her. As she exited the church, I greeted her

“Good Day, Miss Jenkins. It is a pleasure to see you here.”

“I am pleased to see you again also, Mr. Carr.”

“Would it be agreeable for me to escort you to Calverley Park Gardens, assuming that is where you are headed?” I asked.

“Certainly, Mr. Carr”

We set off through the town. I mentioned to Amelia – though at that time she was still Miss Jenkins in our discourse – my concerns about the empty spaces in my pew.

“Perhaps you should write to the vicar and suggest that the verger can offer the seats if you are not present by five minutes before the service. Indeed, even if you attend and there are many wishing to worship, you could add that the verger could fill the extra spaces.”

“That is a very good idea. I will do so,” I answered, noting that Amelia had a measure of practicality similar to that of Geraldine.

Our walk was all too short for me. I noted that Amelia also seemed reluctant to make a farewell, but we did do so with some awkwardness.

* * *

Deerhaven
Calverley Park Gardens
Tunbridge Wells, Kent
October 4, 1881

Dear Mr. Carr,

I have learned that there is to be a public lecture
about the recent electric lights in Godalming. It is
to take place at 2 o'clock on the afternoon of
Saturday October 9 in the hall of St. James church.
The admission is 1/-. I am planning to attend, and
thought that it might interest you particularly
also.

Yours sincerely,

Amelia Jenkins

* * *

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent
October 5, 1881

Dear Miss Jenkins,

Thank you for the information about the public lecture.
It does indeed interest me, and, barring unforeseen
emergencies, I plan to attend also.

Yours sincerely,

Richard Carr

* * *

The lecture about Godalming's electric light was well-attended. It was given by one of the town's aldermen who had a cousin in Tunbridge Wells. From a selfish viewpoint, the speaker lacked a good understanding of the engineering, and I did not bother to ask questions. However, I recognized that the innovation in Godalming – especially including the fact that the electricity supply was public rather than a subscription service from a private company – would soon be emulated elsewhere.

From my own perspective, I have now to admit that the topic of the lecture would not have mattered. My interest was in Amelia's company, and it turned out that she had placed her coat and hat on the chair beside that on which she sat in anticipation of my arrival. After the lecture, I suggested tea somewhere, and we walked into the centre of the town and found a tea room.

"Is life treating you well, Miss Jenkins?" I asked as we waited for the tea, sandwiches and cakes to arrive.

"Quite well. My patient is a woman of my own age who has been married about five years and has had the misfortune to miscarry several times. However, I believe she will deliver soon of a live baby. At least, it is my fervent prayer for her, and we can hear the child's heartbeat is strong. In truth, I feel a bit of a fraud as a nurse, since I am present and paid

mainly in case of an emergency such as a premature delivery. However, in such cases, apart from dealing with a breach or the cord wrapped about the baby's neck or to some extent a haemorrhage, there is not a great deal anyone can do.

And how are you?"

"Quite well, indeed. My engineering practice is busy and I keep young Roger Parks and a few others well-employed in calculating and recording.

Did I mention, Miss Jenkins, that when I hired him we worked from the house. As the work increased and we considered another employee, I looked for an office and we found one with an apartment above some shops at the upper end of the High Street. It has a large room overlooking the street that can be used as an office, but with a small kitchen and what serves as a bedroom behind. There is even a water-closet within the set of rooms. We have arranged that there is a lock on the door between the front office and the living area. Initially Parks lived there, and then Hilda joined him, but they moved to their own house later and now an apprentice, Victor Crane, occupies the accommodation."

"That is a very convenient arrangement. I hope that the work will remain sufficient to cover the expenses and some profit. It is good that you are able to create employment of such a nature for young men. I gather they are engineering apprentices?"

"Parks was not engaged as such, Miss Jenkins, and indeed came to me at a later age than an apprentice would start, but I did teach him aspects of engineering that impinge on our calculations, and he has learned as we work together. Moreover, he has learned the full range of modern engineering over the time we have been associated. Indeed, I am most happy with his work and his attitude to our enterprise, and he is now a partner in the consultancy. Crane I took on as an apprentice. We also now employ on a casual basis several other people, mostly married ladies who work on a per-calculation basis."

"I did not know that. It is good to hear that there may be wider prospects for women."

I noticed Amelia appeared a little uncomfortable. The waitress was at our side, putting down the teapot and a multi-tiered cake and sandwich stand, and we were silent until she had been thanked and departed.

"Shall we pour now, or do you prefer your tea stronger Miss Jenkins?"

"A little stronger. But, Mr. Carr, I wonder if you should not call me Amelia. I ... I think using Miss Jenkins reminds me too much of our previous relationship as nurse and client."

"Then, Amelia, you must call me Richard."

She smiled and replied, "Happily, Mr. .... er ... Richard. I'm sorry, the habit is difficult to forget."

At this we both laughed quietly and I offered the sandwiches, then poured tea. In offering the milk and sugar, I learned that each of us takes our tea with but a small splash of milk and unsweetened. Noting this, we compared how we like our coffee, and found we both like rather milky coffee, which some say is the Viennese or possibly Italian fashion.

“Perhaps the shops want to make it seem exotic, even if it is roasted down the Old Kent Road.” Amelia observed astutely.

In this vein, our tea passed most happily, after which I walked her back to her place of employ and lodging on the Calverley road. On the way, I learned that she was going to visit her cousin in East Grinstead in two weeks’ time. I said,

“You know, though I was born in Tonbridge – it was spelled differently then of course – and have lived much of my life in this area, I have never been to that town except inside a railway carriage.”

“Then why do you not accompany me? My cousin does not get about much, and would welcome a new face.”

“But ... Yes. I will accompany you unless there is some unexpected change in my obligations,” I said, and took out my notebook which I use to record the many details related to my work. I could buy one with a calendar, but I find it fairly easy to keep a section of the notebook where I draw a simple calendar with just the number of the Monday on each row. “That will be Saturday October 23. What time did you wish to depart?”

“Richard, Would the train which leaves the West Station at shortly after 8 o’clock be too early?” Amelia asked. “I like to help my cousin with her shopping, and indeed to buy her a few treats. You would, of course, be at liberty to pursue your own time while we shop.”

“That will be fine. I look forward to it.”

Indeed, I was finding I looked forward to each time I spent with Amelia, and regarded our partings with some sense of letdown.

* * *

The passage of that Saturday was, superficially, unremarkable. Because of the early departure, we met at the West Station at 8 o’ clock and took the local train soon thereafter for the short ride via Groombridge to East Grinstead. Mabel Knowles was on the platform to meet us, a shortish, dark haired woman who somehow managed to combine being very rounded without being fat.

Amelia made the introductions and we discussed how we would structure our day, though in fact Amelia had already laid out a plan. The ladies would spend the morning shopping, and we would meet at noon at a café they both liked, where we would partake of a slightly

early lunch. I would use this time to explore the town. Then I would accompany the ladies to a church bazaar that was being held nearby, after which we would have our tea at Mabel's house.

After these arrangements were agreed, the ladies departed. As they did I realized that Amelia was carrying a basket which, for some reason, I had not noticed before. Mabel also had one. They were clearly prepared for shopping.

Somehow the details of my perambulations in East Grinstead escape my memory, though I do recall that towards mid-day I realized that I was not sure of the route from where I found myself to the café. In my wanderings, I had lost track of my location. After a few minutes, I sorted myself out, and arrived at the door of the eating establishment as the ladies were rounding the corner nearby.

We ordered – in my case a steak and kidney pudding which turned out to be very good – and gradually got into conversation.

"Miss Jenkins tells me you are the widow of a sea captain, Mrs. Knowles," I began.

"Indeed I am. Almost 9 years now. I was one of only two ladies spared in the sinking out of 42 on board."

"You have me at a disadvantage. I do not know the story of your sad loss."

Mabel finished chewing the current mouthful she had just taken, then began,

"My husband was captain of the *Northfleet*, a Blackwall frigate of about 900 tons owned by John Patton, Jr. We were chartered to carry men and their families to build a railway in Tasmania, and also had rails and equipment as cargo. We left Gravesend on the 13th of January 1873 – perhaps the day was unlucky – and there was bad weather, so with a number of other vessels we anchored off Dungeness, as we navigated by sail. About half past ten on the night of January 22, we were nearly cut in two by a Spanish steamboat, later determined to be the *Murillo*. Unfortunately, several factors combined to make the accident more tragic. The *Murillo* pulled back, which let in the sea, then disappeared in the darkness. My husband did not think at first the damage was so severe, and when he did he arranged that the blue lights and the rockets were sent up, but we learned later that several other ships nearby did not see them, in one case the night watch having fallen asleep.

It was possible only to get two of the seven lifeboats launched, one without any oars and the other damaged. My husband – we had only been married six weeks – placed me in one and told Boatswain John Easter, 'Here is a charge for you, bo'sun; take care of her and the rest, and God bless you!'

There were many people rushing towards the lifeboats, and my husband had to wave his pistols and tell them women and children first. I learned later that he shot one man in the knee for disobeying.

In any event, the ship sank in less than half an hour, and a total of 293 people were drowned. Some clinging to the rigging – the sea is shallow there – were rescued by several other vessels, including a ship our lifeboat went to to raise the alarm and to save ourselves given that we had damage to the boat and were bailing all the time."

"That is a most distressing history, Mrs. Knowles."

"Indeed, it took me quite a while to regain an ability to carry out the demands of daily life. Fortunately, my husband had been very careful with money and I had been left my house by an elderly relative I nursed to his deathbed. And when we married my husband bought a life insurance policy. Then the *Murillo* was stopped off Dover on 22 September 1873, which was eight months after the collision. A Court of Admiralty condemned her to be sold and severely censured her officers, and I get a small annuity from the proceeds of the sale. Together with renting two rooms in my house, and doing some sewing work, I manage to make ends meet. "

"I am sincerely glad to hear that you have managed to make some sort of life after your terrible misfortune," I said.

Mabel answered, "Amelia was some considerable help when she came to me after .... before she went to study nursing."

I thought the slip in her speech was just that until somewhat later when Amelia told me more of her own history. However, we were now finished our lunch, having resolved to omit the dessert because Mabel said she had baked a large apple crisp which would be accompanied by plenty of custard.

We spent perhaps an hour in the church bazaar. I found a rather nice gilt frame, four inches by six, which I thought to use for a photograph of Geraldine. The ladies found some ribbons and buttons and other notions.

After leaving the bazaar, we walked to Mabel's house via two shops where purchases had been made and the baskets had been left for safe keeping. I had not noticed! While I could be excused as "Just a man", I think that my attentions were elsewhere. I found myself watching Amelia, admiring her form and face. Possibly other men would find her rather ordinary. She was a good four inches taller than Mabel, and only a couple of inches shorter than myself. Relatively slim but without fat, and able to walk briskly without getting out of breath. She had quite strong features, which I found very appealing, but which are not always seen as beautiful by those who dictate fashion and taste.

And, of course, she was about twenty years younger than myself, which I worried might be a particular attraction for me. Mabel was between us in age, I guessed, and later found out I was correct.

I enjoyed our tea with Mabel, as I was now charged with calling her, and the apple crisp was even better than advertised. Conversation kept going until after six, and it was dark when we boarded the train back to Tunbridge Wells.

As the train pulled out of the station, a thought occurred to me that I felt needed clarification.

"Amelia, I have a rather delicate question."

"What is that, Richard?" Amelia replied, looking concerned.

"It is that you have introduced me to Mabel, who is a very pleasant, engaging and resourceful lady. She and I are both widowed, so I wondered if you consider that we might find each other congenial."

At this Amelia looked very worried and flustered.

"Oh. No. ... I ... uh ... Actually Richard, I enjoy your company, and did not wish to miss spending time with you this week. And while I did want you to meet Mabel, it is principally so that I may talk to each of you about the other without having to explain so much. So my motives were more selfish than you suspect."

This answer cheered me greatly, and I answered

"Thank you, Amelia. I'm afraid that while I liked Mabel, and am sincere in my description of her as pleasant and engaging, I did not find I had a ... er ... particular connection with her. I hope that does not seem harsh or unkind."

"Is it not similar to liking a dish or not? Some people like kippers, while others cannot stomach being in the same room where they are being eaten. But it is not a decision to like or dislike the smoked herring, just that they appeal or do not."

I laughed, "Well put!" while wondering if there was a particular connection between Amelia and me.

* * *

After our outing to East Grinstead, Amelia and I took to arranging to walk together roughly once a week when our obligations permitted. I found these times together most pleasing to me, and it seemed she also found the time enjoyable. In the week after our visit to Mabel, Amelia's patient delivered of a healthy baby boy, but almost immediately the agency with which she arranged her business had another task for her with a family named Crawley where there was a potentially difficult pregnancy, and she moved to a house in Mt. Sion.

At the beginning of November, I received a letter from Rev. T. B. Rowe, the headmaster at Tonbridge School, inviting me to a luncheon where he asked if I would give a short

discourse on my career since leaving the School. He said the invitation extended to my wife, thus suggesting that the School's intelligence about me was out of date. I was writing my response, giving the information of my bereavement, and was about to write that I would come without a guest, when it occurred to me to suggest that I bring a friend who I would like to hear my oration if that were acceptable.

By return of post, Rowe agreed. The event would take place Sunday November 20, and would begin in the Chapel with a service at 11, with lunch to follow at approximately half past noon. I would give a twenty to thirty minute discourse after lunch as coffee was served.

I immediately sent a note to Amelia by means of Betty, one of the maids, and got a reply by return accepting. Later we amended the arrangements after I contacted Maude, my sister, and arranged to come for tea later in the day.

Overall, I was well-satisfied with the day. We took the train to Tonbridge and walked up the High Street to the School in good time. Rowe, if he wondered at my bringing a woman friend, hid any sign of awkwardness, and indeed was solicitous to Amelia concerning her role in nursing Geraldine.

After the service, we walked to the hall for lunch, which was a most pleasant roast of beef. In my speech to the School body, after the pudding dishes were removed, I was careful to talk of things that I felt would interest the boys. Locomotives and bridges and tunnels were a good source of material, and I pointed out some details such as I have already mentioned regarding the amount of stone in the Victoria Bridge compared to the Great Pyramid, the issues of strengths of materials as they affect the dangers of such projects as the Tay Bridge, and so forth. In so doing, I was able to slide in mention of measurement and calculation, and my belief that these would become in the near future critical to industry and national well-being.

Though I could have spent several hours with these matters, I have had enough experience that my notes ran out at just over 22 minutes of talking, and I was able to offer to answer some questions. Rowe took charge and said he would restrict the questions to two or to 6 minutes total, whichever came first. He selected the boys who could ask questions, and I was gratified to be asked questions about the merits of iron versus steel and about the difficulties of geodesy in North America. Of course, I had to curtail the detail of my answers, but was able to point out how modern steel was much easier to make with uniform properties versus cast and wrought iron for compressive or tensile applications, and how there were in principle methods to refine the network of survey benchmarks, but that we were inhibited from using the most promising due to the challenges of the computations. In the latter I made no mention of the method of least squares, as I judged it would have had no significance to anyone in my audience.

After I finished and was thanked by the head prefect and quite surprising applause, he handed me a parcel which was a gift for my efforts. It turned out to be a bottle of fine

sherry in a canvas sack with handles, which later we used to celebrate when Amelia and I became engaged to marry.

The student assembly was then dismissed and those of us at the high table continued our coffee and conversation for perhaps a quarter of an hour. The conversation over lunch and after my talk was cordial, and I noticed Amelia was able to hold her own with ease, as nursing seemed to be a topic of rather general interest. At some unnoticed signal, the company rose, and Amelia and I made our farewells.

The School was quite close to Maude's house, but we took a walk about the town, as Amelia had essentially only seen Tonbridge as a point to change trains. Though the weather was not very good, we were able to take a modest stroll along part of the Medway then back through the town to Maude's.

At my sister's house, she and her husband James White, a stone-mason and bricklayer, had all their children at home. The three eldest – Alfred, Mary and James Gregory – now all lived elsewhere. Alfred was working in masonry in London, Mary was teaching in a school in Orpington, and James Gregory was working in a shop in Sevenoaks while living with the family of the local Methodist minister there and training to become one himself. Only fifteen-year-old Ethel was still at home, and Maude thought she would soon join the family ironmongery that my cousin Jeremiah had taken over after the death of my father. There was a growing part of the business that dealt with items of interest to women, and Ethel seemed to have a good head for what would appeal and how to present such items. However, I turned my thoughts to James Gregory and asked,

"Is there awkwardness with your Uncle Clarence?" I asked, since my other sister Jane was wife to the vicar of St. Mary the Virgin in Nettlestead, a village between Tonbridge and Maidstone.

"No, Uncle Richard, I see no profit in starting a quarrel, and we have written back and forth several times most cordially. Though formally we must be in different camps, neither of us feel it is Christian to be cold to the other."

"I am most pleased to hear that," I said. "I would not like to have to be in the middle some religious schism."

The tea was noisy with multiple conversations going on at once. Amelia clearly found herself at home with my sister's family, as I did also, though I felt slightly odd on this occasion as "Uncle Richard" when my friend was simply called "Amelia". It underlined our essential difference in age.

We were later than intended taking our train home to Tunbridge Wells. Amelia chattered amiably about the day, and I had only to make small responses. However, I was most gratified when she said,

“Richard, I was watching the boys when you talked about the engineering in which you had a part. They were all ears. Many were on the edge of their chairs. It was a good speech, yet concise. I congratulate you sincerely.”

“Thank you. You have confirmed what I had thought, but as author of a speech one is too preoccupied to give a true assessment.”

In thus answering, I did not think Amelia was simply wanting to please me. She had an essential honesty of a type I had admired also in Geraldine.

I then mentioned my awkwardness about being Uncle Richard, saying, “I hope my sister’s family were not too oppressive in their questions or enthusiasms.”

“Not at all. It was most comforting to be treated as a member of the family.”

“Though I must say I felt awkward at being Uncle Richard when you were simply Amelia. It underlined the difference in our ages.”

“Surely we can do nothing about that. It is a reality. But how many years is the difference. I have not bothered to estimate.”

“I was born on the 1st of September, 1834. It hardly seems possible that my last birthday was my forty-seventh.”

“Yes. You do not have the mannerisms of a man of middle years. I was born the 25th of April, 1855.”

In answer, I said, “You present a wisdom that is beyond those years.”

After this we were both quiet for the rest of the short journey. I believe we each had thoughts to process.

When we descended from the train, I engaged a cab and delivered Amelia to her place of residence, then had the cab take me home. It had been a tiring day, but a most pleasant one.

* * *

Before Christmas of the year, we only managed two more meetings. One was a simple, and rather short, walk on the Commons. The other was a pantomime put on mostly by a local amateur dramatic society augmented by one or two professionals. There were many children, and the acting was of uneven quality, but it did not really matter, as there was plenty of laughter and we were able to just fall into the spirit of the occasion.

Afterwards, as I walked Amelia back to her residence, we talked of our plans for Christmas.

"Unfortunately, Richard, the Crawley's want me to be in attendance over Christmas and the few days before. In fact, it is much to my profit, as the rate is 50 per cent more and the paid hours of responsibility are also increased."

"Amelia. From my own business, I fully appreciate what you are saying. Do not fret too much that we will have to postpone our time together. However, I will write to you at the Crawley's so we can arrange when we will meet next."

* * *

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent
November 20, 1881

Dear George,

I have not included Sophy in my salutation, but at your discretion you may share this letter with her. However, the main part of my message is to impart to you what I hope will turn out happily, but which also has some awkward elements. Furthermore, I believe it to be important that you are aware of possible directions my life may take, so that later news will not be a shock or give an appearance I have withheld news.

I believe I have mentioned Miss Amelia Jenkins who nursed Mother in her decline. We met by chance on the Commons last August Bank Holiday and have spent some agreeable time together in walking, at church, and other public events.

At this moment I have no ideas what sentiments Miss Jenkins may have towards me. She is but a few months older than yourself, and I have a fear that, should our friendship progress to the consideration of marriage, I might, either in reality or appearance, be taken for a fool, being a man of 47 with a young lady of 26. This is, I must stress, not what I perceive in our interaction.

There is always the possibility that Miss Jenkins is seeking security and comfort, even if her demeanour to me is pleasant and sincere. An arrangement on that level would not please me. Your mother and

I had more in all kinds of ways.

This uncertainty is, as you may surmise, somewhat unsettling, but I do find Miss Jenkins and I seem to enjoy keeping company, and I believe has helped me to regain some semblance of a more normal life. I was becoming far too immersed in my work to the exclusion of social activities. Even if the friendship goes no further than it has, Miss Jenkins will have rendered me a great service, no matter the particular outcome.

I will spend Christmas with the family in Tonbridge, and will convey to them your best wishes.

Your affectionate father,

Richard Carr

* * *

253 Avenue Haute Ecluse
Montreal, Quebec

December 11, 1881

Dear Father,

Some sons might be most upset by your letter, but I am, by contrast, most pleased that you are taking an interest in life outside your work. I am well-acquainted with how careful you are in your dealings with others, and I am confident that you will be able to discern if Miss Jenkins' intentions are compatible with your own. For my part, let me say that I sincerely hope that things do work out for you.

If I may add something from my medical work, I have noticed that people with good friendships and emotional ties seem to heal and thrive best. So I hope, for very down-to-earth reasons of health, that you are successful in finding such a connection.

This Christmas I will pass with Sophy's family, the Meilleures. Though they live in Montreal, I will stay over so I can participate in the reveillon, which is the feast after midnight mass. While I am not Catholic, Sophy and I have discussed things and believe a passive participation in the service will go without comment.

We both are at a juncture in our personal lives. Sophy and I intend to announce our engagement over Christmas, but do not plan to marry until quite late in 1882. There are practical matters to which we must attend first, but we do not feel that we can postpone acknowledging our intentions much longer.

I was going to try to add much more news, but trains and ships await.

Do keep well, and a very Happy Christmas and a prosperous and healthy New Year.

With deepest affection,
Your son,

George Carr
with warmest wishes from Sophy

Betrothal

My general mental equilibrium was unsettled over the entire period of Christmas 1881 and into the New Year. I went to Tonbridge on Christmas Eve, which was a Saturday, and stayed two nights with Maude and James. James Gregory would stay with his Methodist family and actually was being given a chance to preach. Alfred was staying in London. There was an excuse of some work project, but Maude confided that she thought there was also a young lady whose family wanted to meet her son. Mary was home, and Ethel of course, so the house was still quite full of chatter.

On Christmas Day, we were invited to Nettlestead for a dinner at three o'clock. The Sunday and Christmas service was at 11, so we breakfasted early and exchanged gifts apart from those for Jane and her husband. By previous consent, these were to be small items. For my sister Maude and her husband I had a bottle of brandy. For Mary a pencil case, which I knew from Maude she needed, as her old one was dilapidated. For Ethel I had a small tape measure that rolled the tape into a small disk-shaped container that she could carry in an apron. In return, I received some nice socks and handkerchiefs and a rather clever folding corkscrew.

James had a cart from his masonry business that had a canvas cover. It was not elegant, but James had fastened in some padded benches. It was 10 miles each way, and we did not have a change of horses, so left at half-past seven so we would arrive in plenty of time. I noticed James put some oats and hay on the cart. There were blankets and Maude had some hot coffee in earthenware bottles that she put in a box of straw. This was a good idea. I also had a flask of brandy in my coat pocket, but we saved that for the homeward journey. James

made sure there were several lanterns on the cart. We would need them for returning late in the evening.

Thus we had quite an expedition to Nettlestead, where we arrived at around half-past ten. I helped James unharness the two horses – two cart horses since that was all he had – and tether them in a lean-to behind the manse. We put out some hay and water. We later gave each a nosebag of oats for their Christmas meal.

Jane greeted us with an offer of a quick cup of tea, which we declined having drunk the coffee along the way. We all made use of the water closet before joining the congregation in the church.

Clarence did a creditable job of conducting the Christmas service. His sermon was brief and celebratory. He also asked all of us to turn to our neighbours both in our pews and those ahead and behind and bade us wish them a Merry Christmas in the name of Our Lord. The congregation was a little surprised, then took up the challenge with some enthusiasm.

After the ritual of greeting the parishioners after the service, Clarence joined James and I in the drawing room of the manse. The four women took to the kitchen where we heard laughter and gaiety. We men had a glass of sherry and talked of the events of the year. Reginald, the son of Jane and Clarence, was not at home, being a midshipman in the Royal Navy.

The drawing room was cordial and relaxing. Each of us was in a well-stuffed arm-chair. After a while we all fell asleep!

Maude wakened us to ask us to come to table, which we did. Clarence said grace, a bottle of hock was opened, and James carved the turkey. Why James did so rather than Clarence I did not ask. Possibly he had more skill and this was silently acknowledged. We had a most pleasant meal. I was rather glad Jane had restrained the usual enthusiasm at Christmas for too much food. We had more than enough, but the residue did not require a small army to clear the table.

Then the pudding was ignited and brought in. Ethel found the silver threepence, possibly by some subterfuge of Maude and Jane. We toasted Christmas and wished each other a happy New Year for 1882. As darkness fell – with the winter season around four o'clock – we began to prepare our journey back to Tonbridge.

Jane and Maude filled the earthenware bottles with hot tea, and a tin of mince pies and one of sausage rolls were put out for the journey. We dressed ourselves warmly and the three men harnessed the horses to the cart and brought it round to the door of the manse. With much cordiality we said our goodbyes and the horses started a slow walk to take us home.

I sat on the rear bench with Maude, while Mary and Ethel bracketed their father. We halted at a small village along the way under a gas lamp above a horse trough. Since the horses were still harnessed, James used a bucket to give each horse as much as they wanted to

drink. The horses knew the routine. James simply held the bucket where they could dip their nose until they were done. Both horses took more than a bucket each. He also gave them some more oats while the humans in the party drank some tea and partook of sausage rolls and mince pies.

As the cart glid homeward, Maude asked, “Richard, Do you think you and Miss Jenkins will maintain your friendship?”

It was clear that this question was more than its words. I answered honestly,

“I hope so, but she is much younger than I. There is always the danger of a man appearing ridiculous if his behaviour with such a young woman is not carefully considered. Also of compromising the reputation of the lady.”

“Well, I was watching her when she came to tea. I think she cares about you. I’ll be very upset with you if you cause her any heartache, Richard. She is a very nice young woman.”

“I’m glad you think so Maude. I think so too, and I care about her. I am just a bit worried whether to seek more than friendship with Amelia, that is Miss Jenkins. It has not been long since Geraldine passed away.”

“Well, you shouldn’t wait until you are in your dotage. You have a life to lead.”

“Thank you Maude. You are truly still my elder sister, and I will take your counsel seriously, as it supports my own feelings.”

“You’d better have another mince pie and maybe all of us a sip of your brandy.” Maude said, bringing the topic to a close.

* * *

I had arranged by letter to meet Amelia to walk on the Commons on Boxing Day, and I took a train quite early back to Tunbridge Wells and walked to my house. Apart from a quick visit to the water closet, I was straight out again and met Amelia at half-past ten precisely at Trinity Church. It was good to see her again, and my heart lifted.

We had chosen Trinity Church as a good meeting place that was close to the Commons where we aimed to walk to see the gathering of the local hunt. If the weather were inclement, the church entrance would provide some shelter if one of us had to wait for the other. In the circumstance, we arrived almost simultaneously.

During the short walk to the Commons, as I recall, our talk consisted mainly of recounting the details of people and food and such of the last few days. That it was banal might in other moments annoy me, but we were in good spirits and rather enthusiastically praised what we liked and castigated what we did not. In Amelia’s case, it appeared that

undercooked pastry for mince pies was a particular source of disdain. I was able to counter with some wine Jane or Clarence had saved for far too long after opening.

The members of the hunt were milling around on their horses in their red and pink finery. A liveried footman carried a tray of small glasses with the stirrup cup which he offered to each horsemen. The horses snorted and puffed, their breath steaming in jets from their nostrils. Then after the glasses had been gathered up, there was a small commotion, the hounds were loosed, and off they all went to the south.

It was a cool enough day that I led Amelia to a nearby public house. In the snug we ordered coffee.

"Would you like something to eat?" I asked. "It is a bit early for lunch, but I started out quite early from my cousin's house."

"Actually I started the day quite early also. Mrs. Crowley – the lady I'm nursing at the moment – had a bad night, so I had early duties and an equally early breakfast, though after the Christmas feast, I am not overly hungry."

"I feel like some pork pie, but don't really want a whole one of those I see by the bar."

"We could share one." Amelia said.

"That would be splendid. And practical."

It was clear to me that Amelia enjoyed her coffee and pie as much as I did. I was becoming very attached to her, but dreaded the possibility that her feelings were such that she regarded me as a kind uncle. I have to admit, my feelings were those of a suitor.

I must have been silent for a while, for I suddenly realized Amelia was asking me a question.

"Richard. You seem quiet. Is something bothering you?"

"No, of course .... Well, yes. But I'm not sure if it is appropriate for me to explain."

"I would not want you to tell me anything you might regret later. But, Richard, I have come to very much enjoy and treasure our time together. May I ask if your ... er ... discomfort in any way concerns me. I should not like to be cause for scandal or gossip for you."

I was now in the soup, so to speak. I hesitated for a few seconds, then decided that the moment called for some level of decisiveness.

"In truth, Amelia, my thoughts are that I, too, treasure our times together. And that is the rub. I find that I would like your company much more. However, there is a two decade difference in our ages, and your feelings and mine may have a ... a rather different ... er ... inclination."

At this, Amelia grasped a handkerchief to her mouth and spluttered. Or did she laugh?

“Oh Richard, I’m sorry if that makes me laugh, but I most sincerely assure you my mirth is for the form of your words, not their sentiments. I am flattered, and I have mused about similar concerns. Truthfully, I am not come to any conclusion, except that I do not want our outings to cease. Perhaps we might take some time to each think about what we desire and talk again when we next meet.”

Amelia’s response was much more positive than I had dared dream. Somewhat to our mutual frustration, we discovered that our next few weeks were quite occupied. When I was free, Amelia had nursing obligations with Mrs. Crowley. When she had some time off, I was scheduled to meet clients or carry out some work. Thus it turned out that Saturday January 14, two days after I would attend the opening of Mr. Edison’s Holborn Generating Station, was our first chance.

I walked Amelia back to the house of Mrs. Crowley. Actually we took a very roundabout route by mutual consent to prolong our time together. However, without explicit agreement, we avoided mention of our future and talked about our work or about the world.

After I took my leave of Amelia I found my mind a whirl of thoughts. During the short walk to my house I was so distracted I nearly stepped in front of a hansom cab.

When I arrived home, only Betty was there. I had given all the staff leave until the night of Boxing Day, and cook two days more. I still had two women servants, Betty and Hilda, who did for general housework, and Rickett, the part-time odd-job man, as well as cook, though sometimes the three women exchanged duties if it suited them. To such arrangements, I was indifferent as long as the house ran smoothly. However, I had specified that there be someone in residence at the house in case of urgent communications by my engineering clients. The staff were now accustomed to my needs, and knew that they could organize their time among themselves to their mutual advantage as long as the requirement was satisfied. Moreover, I had made it clear I that I valued properly completed work, not a pretence of being busy. Over time we had evolved a comfortable regime.

As I came in, Betty came out from the kitchen.

“Good afternoon, Mr. Carr.”

“Good afternoon, Betty. Is everything in order?”

“Yes sir. There have been no messages. I hope you don’t mind, sir, but my sister Jane is here in the kitchen. I would have asked ....”

“No problem at all. Wish her a Happy Christmas for me.”

“We have the kettle on, sir, can I bring you some tea?”

"Please. I'll be in my office."

"I thought you would likely spend some time there, so I've lit the fire, but kept it very small. Shall I bank it up?"

"No. I'll do it. I think the sooner I have some tea the better."

I had time to stoke the fire in my office and use the WC before the tea arrived. I thought perhaps a shot of brandy, but decided to wait until after my evening meal. When Betty came in, she asked "Will you be wanting something to eat later, sir?"

"Yes, I plan to stay in for the evening, Betty. What is there that can be prepared easily?"

"Cook left several pies, both savoury and sweet. There's eggs and cheese, of course, and Jane brought me some mushrooms, and there's more than I can eat. The bread is from Saturday, so not so fresh, but we can toast it as the fire is hot."

"Would some scrambled eggs with mushrooms on toast make sense?" I asked. "You and your sister are welcome to partake also, of course."

"Perfect, sir. Thank you very much. And would apple pie for dessert be acceptable."

"Yes, certainly. But do add a plate with some biscuits and cheese in case I want something later, then I won't have to ring. You need not stay up. I can look after myself. And offer Jane a glass of sherry."

"Ooh. Thank you, sir. She'll be that pleased."

"It is Christmas." I said, but she was already out the door.

I spent the evening trying to read *The Portrait of a Lady* by Henry James, but my thoughts kept returning to Amelia. Even some of the themes of James' novel – the ideas of independence of a young woman – hammered on the same anvil.

After a glass of brandy, I calmed myself by noting that Amelia had herself stated that she wanted to keep seeing me, or at least keep sharing outings with me. Though now I was not sure that was enough for me. Geraldine and I had enjoyed a marriage which, if not ecstatically happy, had a large measure of satisfaction and contentment and a full measure of mutual respect and concern. We had our son and, sadly, our deceased daughter.

I returned to the novel before retiring at an hour that was, for me, rather early.

* * *

Before Saturday January 14, 1882, I reserved a table to dine at the Bishops Down Spa Hotel. I wrote to Amelia and by reply she confirmed she would be ready for me to collect her in a cab at half-past six. I must confess to some nervousness, and had to make three attempts to

get my tie straight. Then it seemed that the cab I had arranged was late, or so I imagined, though he was at the end of the street at the moment my watch showed a quarter past, so he was at most a minute late.

Amelia was ready at the door. I helped her into the cab and we were off. The ride to the hotel was at most 10 minutes, so we were in plenty of time. The staff took our coats and hats.

“That dress is very becoming, Amelia.” I said, admiring a quite simple but very well-tailored red dress that was buttoned up the front with small red spheres.

“Thank you, Richard. It was a gift from a previous client, but I had to work a little with my needle to adjust it to my size and shape.”

“I did not know you sewed,” I admitted, realizing there were many things about which I was ignorant concerning Amelia.

As if knowing my thoughts, she said “Is this evening not about discovering each other’s hopes and inclinations?”

“Indeed. And let us hope we find the revelations agreeable,” I replied, then added “Oh. Perhaps that will put too much weight upon our conversation.”

Amelia gave a small laugh. “I was concerned in the same way. Perhaps we had better try to remember that we have both said we enjoy each other’s company and want to continue to enjoy it.”

“Very wise.” I said, meaning it in every way.

The hotel had clearly understood well my note requesting a table that was public but nonetheless permitting of private conversation. We were seated in an alcove where we could see the rest of the dining room, but were a good eight feet from the nearest table. There was a small oil lamp on our table, allowing us to see each other’s face as we talked.

“Amelia, would you like to order from the menu, or have me suggest some possibilities?”

“Richard, this is such a treat, and I must admit to never having dined in such a fine place. Please suggest, but do explain what things are, as I would hate to have you pay for something I could not eat.”

We talked about the menu, which was more extensive than many of the time. Eventually we decided on a clear soup, no fish course, and a main dish each, with dessert to be decided later. For my main course I chose a dish that was a de-boned chicken, while Amelia chose a veal concoction that advertised that it was in the Italian fashion. To accompany these, I ordered a bottle of hock, after asking Amelia if she would like to share that with me.

“Now Richard. Do you want to start our discussion before the food arrives, or wait until later.”

“Normally I would wait, but I fear we will spoil our appetite with anxiety.”

“Indeed, I agree. So perhaps you would tell me how you would like us to continue our friendship.”

This was a most positive way of expressing things, and I am afraid I jumped in with both feet.

“Amelia. If it is possible, I think that I would be happiest if we were man and wife. I hope that is not too abrupt or premature.” I was, I realize now, quite desperately worried about the outcome of our discussion.

However, though Amelia’s face took on a terrible pall of worry, she replied “Richard. I most humbly thank you for your sentiments, which I will consider as a proposal. However, I think I should tell you some things about myself that I have revealed to very few people and that may cause you to withdraw it. I hope – and I really cannot hold you to this – that you will keep what I tell you to yourself no matter what the outcome of our conversation tonight.”

This made me feel desperately unsettled. However, I could not believe evil of Amelia. I said “I have never found it necessary for me to violate a confidence. From what I know of you, it is impossible that you have done anything that requires me to inform someone about it. So please continue. But as we are likely from time to time to have the waiters at our table, do feel comfortable in pausing your discourse until they are gone away.”

“Thank you, Richard.”

She took a long sip of her sherry. Then she said, “As you know, I am now a nurse. However, you know my father died when I was 15, and the resources at my mother’s disposal meant I had to find employment. As the daughter of a schoolmaster, I was better educated than most, and found a position as governess to two young ladies in the house of a banker.

I enjoyed my position and the household. There was an older son, about 19, a widowed aunt who was elder sister to the mother, and the father who was rarely home. All went well for about two years. Then, one day as the lessons for the two girls came to an end and I sent them down for their tea, the young man of the house entered the room we called the school room. I won’t go into detail, but will say that he forced himself on me. After, as he left me lying on the floor bleeding and with my clothing ripped, I heard his mother calling after him asking what he was doing coming out of the schoolroom. She came in, saw me, and immediately castigated me for having seduced her son, then gave me my dismissal, saying I should leave in the morning.”

At this I felt angry and cold at the same time. Amelia said no more for a minute or so as the waiter opened the wine for us. Then she continued, "At the time this event happened, I was numb with shock. I went to my room, but within 10 minutes there was a knock. I thought it was the young man come to do further violence to me, but when I asked who was there, it turned out to be the widowed aunt. She had a tray with some food and drink, as well as some warm water and some clean cloths to help clean up my injuries. She told me she did not believe for a minute I had any responsibility for what had happened, and though she had limited resources, she had been able to secrete some money. She gave me 20 pounds, which was a goodly fraction of my annual salary, and asked me if there were an address where I could receive letters. I had a my cousin Mabel's address that I believed – fortunately correctly – would serve, and gave her that, even though Mabel was recently bereaved.

She also had a further surprise. I hope I will not offend you, but I think it shows how much she understood of my situation. While she was cleaning my injuries, she took from a small bag a sort of bladder with a tube. The bladder contained a liquid which I believe was vinegar and she used it in a way I will not describe, except that she said it would reduce the chance I would get with child from the actions of her nephew. And I was fortunate that I did not suffer that also. Moreover, since young men are known to consort with women of the street, I could, as I learned later, have contracted some disease, but I believe I was spared that also, though for several weeks I was from time to time a little feverish, but developed no other symptoms. I later tried to learn all I could about the symptoms of diseases that might be so transmitted, and I am fairly sure I had none.

I should add that, from her further words, I gather the aunt was most unhappy with the moral turpitude of her nephew, but relied to a considerable extent on the generosity of the family, having made a poor marriage that ended with her relatively early widowhood.

Richard. I think that, if you don't object, I will stop there for now. I fear talking of the subject has made me feel a little fatigued."

I replied "Of course. Saying what you did must have cost you a great deal of courage and honesty."

I was going to say more, but our soup – a very fine consommé – was being served. With some impatience, I thanked the waiter and he left.

"Amelia. You have said nothing to your discredit. That you have managed to survive and indeed to thrive speaks volumes in the other direction."

"Well, the widowed aunt did me a further service. When I went to my cousin and asked if there were any letter for me, there was a note of introduction to a school of nursing. You can surmise the rest. I only wish I could repay the lady who helped me, though in a letter she says that my success is her reward."

If Amelia had concerns her tale would diminish her in my eyes, then she was most certainly incorrect. I said,

“It is now my turn to speak of my anxieties. As you are aware, there is 20 years difference in our ages. I fear you may not want such an older husband. Moreover, from what you have told me, you may not wish that we behave ... er ... in the usual manner of husband and wife. I would hate to have you feel obligated to share anything with me against your feelings.”

“Thank you, Richard. I must confide that the possibility I could not be a true wife to someone I married is a worry. It is not that I do not wish to have a full marriage, but that my unconscious reactions may betray my hopes.”

“Surely that possibility exists with any woman I might marry? With you, Amelia, I at least have some sense of the basis for a reaction, and I might hope to behave in a way that together we could arrive at a happy result.”

“Thank you, Richard. That is very comforting. Let us perhaps consider some other matters.”

“Oh dear. Are you telling me there is more?”

“No. No. I was thinking more of what each of us expects of a shared life. For example, I would normally be expected to give up nursing.”

“I must confess that I was not thinking about your occupation. And that is, I am ashamed, rather presumptive of me and possibly a reflection of the general attitude of our society. However, my mother always did some work in the business, as did my grandmother I have heard – she died before I was born. And in our time in Canada, Geraldine ran a small business conducting bookkeeping and correspondence for women who were seamstresses or dressmakers or laundresses and such. I believe I already told you that last summer when we first met again.

Would you like to continue nursing?”

“Perhaps. More that I would like not to waste my training. Possibly I could find some occupation with writing about or analyzing situations related to nursing, or even do a little as someone who fills in when there is a crisis. There is, of course, the possibility of children if we marry.”

“Yes. And that raises the issue of our age difference again. If we marry, I must ensure provision should you be left a widow, especially if there are children.”

“Richard. While that practical concern is of importance to me, I think I should tell you I would seize the chance to marry you even if you were a poor man. I find that you have stolen my affections. I want very much to be your wife. I just ... I just couldn’t imagine you would want someone who is ... er ... damaged.”

At this my heart leapt.

“Then I take it you accept my proposal?”

“With all my heart.”

At this moment our main courses arrived.

The waiter poured our wine. I toasted “To a happy marriage.”

“To a happy marriage, and a long one.”

* * *

We were very jolly for the rest of the evening. We finished the whole bottle of hock and were perhaps a little tipsy. For dessert we had a syllabub which was very good. I do not smoke, except cigars to keep company with business clients, and we both felt that we had drunk enough that we decided to leave after dessert without coffee or brandy.

Amelia visited the cloakroom, and advised that I do the same to avoid discomfort on the journey home, even though it was not far. The hotel had some arrangement with cabs, perhaps a lamp signal or even some electric telegraph, for one came up as soon as we were at the door putting on our coats and the footman was handing me my hat.

As soon as the hansom was moving, Amelia surprised me by removing my hat. Then she pulled my chin towards her and gave me a kiss full on the lips that lasted fully half a minute. It fairly took my breath away, but I had the good sense to put my arms round her and respond gently.

“Will that serve as a proper answer to your proposal?” she teased.

“Absolutely. I am stunned that a woman so vivacious and young and beautiful should want a man like me. You have made me madly and almost uncontrollably happy.”

“The feeling is mutual, I assure you. In the past few months, you have made me feel very valued and valuable. Thank you Richard. But do you really see me as beautiful? I know I try to keep my appearance presentable ...”

“While I could say beauty is in the eye of the beholder, several people have said how attractive you are. Possibly there are too many prescriptions for what makes a pretty woman, and I would esteem that you do not fit those prescriptions, which are, after all, but the opinion of one or two people. But you can take it that you are a handsome woman, and I find you very beautiful.”

“Thank you Richard. You certainly make me feel that way.”

She was about to continue, but I realized there were some details to agree.

“Amelia, before we get to your place of employment, there are some practical details. Can you accompany me to church tomorrow morning, then come with me to my house so we can make some plans?”

“That should be possible after I attend to Mrs. Crowley in the morning. Oh. We are almost there. At what hour, Richard?”

“The service is at 11. Shall I collect you at half-past 10? If it is fine, I propose we walk from here.”

That was our decision. The cab took me home in a cloud of euphoria.

* * *

Because Amelia was a private nurse, she had much more freedom than most servants. Her accompanying me to church on the 15th of January 1882 was not the first time we had attended together. With Geraldine, as I have discussed, I had undertaken to subscribe for a pew, and that is where we seated ourselves.

This morning’s sermon was less than inspiring. Worse, it went on far too long. The congregation’s enthusiasm for the final hymn was palpable. Nevertheless, Amelia’s acceptance of my proposal kept my spirits high. We waited to leave our pew until others had exited the church to speak to the vicar, who I was gratified to note greeted me by name.

“Good day, Mr. Carr”

He must have realized it was no longer morning.

“Vicar, Miss Jenkins and I wish to marry. Can you inform us what we must do to have the banns called?”

“Let me congratulate you both. And since you have told me in person, I will be satisfied if you write to me in the next few days so that I may read the first announcement next Sunday giving me your full names and places of residence. Have you a date for your wedding?”

“Not yet, but we are about to discuss our plans. I believe that we must have the banns called three times within the three months before we marry, and I am sure that the event will take place within that time.”

I wondered, as I said this, whether I was presumptive of Amelia’s sentiments, but she was nodding approvingly as I said this.

We walked happily back to my house. I had asked Betty if cook could have a light lunch ready, and to include provision for the staff and for Parks and Hilda, who I had sent a note inviting for lunch. I had put out a bottle of amontillado before I left for church.

It was a quarter to one when we arrived. Betty took Amelia's coat and hat. The staff already knew Amelia from the time when she cared for Geraldine.

"Betty. Please ask that lunch be served at one o'clock, and as I mentioned to you this morning, you are all invited to join us."

"Certainly Mr. Carr," she said and disappeared to the kitchen.

"Shall we wash up before lunch?" I asked.

"Certainly. I know the way, of course." Amelia said.

It seemed odd that this was the first time Amelia had been in the house since Geraldine had died. Of course, it would not be regarded as respectable for a single woman to visit the house of a gentleman without a chaperone. Yet while she was a private nurse, we had many times been in a room together alone.

At one o'clock, the staff filed into the dining room. Betty, cook – Mrs. Baldock – and Hilda and Parks who had just arrived. Hilda was in regular clothes, but I noticed that Betty and cook had their uniforms straight and their hair tidy. The food was already on the table, and I had poured six glasses of amontillado.

"I believe it is no secret that Miss Jenkins – Amelia – has accompanied me on several occasions in recent months. It is my happy opportunity to tell you that we have asked the vicar to read the banns so that we may marry in the near future. May I ask you to raise a glass to our future together?"

"Good luck to you both, Mr. Carr, Miss Jenkins" said cook.

"Good luck. Long life" said Hilda and Parks as one.

"Happiness to you both" said Betty.

"Let's sit down and enjoy our lunch" I said.

I had, without thinking, seated Amelia at the far end of the table, where the mistress of the house would sit. Nobody seemed to think this was inappropriate, though I had a vague feeling that it was perhaps premature. Nevertheless, the lunch – game pie with some boiled potatoes and Brussels sprouts – was eaten with gusto. After some initial awkwardness, Amelia managed to elicit descriptions of Christmas in the households of staff members and she shared a few details of the Crowley household, where of course celebrations were subdued due to Mrs. Crowley's imminent confinement.

After lunch – there was an apple charlotte for dessert – Parks and Hilda left and Betty served coffee in my study and Amelia and I sat by the fire to plan.

"Have you any particular wishes for our wedding?" I asked.

“I have only a few friends and family who I can invite, so a large affair would only come about if you have obligations to many people.”

“No. I have my cousins in Tonbridge, and they are a bit of a crowd, and a couple of engineering friends I would genuinely like to be there. Unfortunately, I doubt it is reasonable for my son George to come from Canada. However, I must write to him to give him the news. I had actually written to him in my Christmas letter about you, saying how much I enjoyed your company.”

“I will also write myself, if you will allow it.”

“Certainly. Now I think we may have been too quick to tell the vicar, though our letter can ask him to delay the first calling of the banns. It is roughly three months to Easter. Here on my calendar it says April 9 is Easter Sunday. The 15th would be the Saturday following.”

“Richard. I feel very wicked saying this, but I don’t want to wait very long. Mrs. Crowley’s confinement will certainly end within the next three weeks. In fact, I will be willing to wager she will deliver this week.”

“Then we are both wicked. The banns will be read the 22nd and 29th of this month and the 5th of February. We are then free to marry unless someone gives cause otherwise. I know of no reason in my own case. Do you have any reason you cannot marry.”

“None.”

“Then let us choose a date. Would the 25th of February be a good choice. It will give us time to take care of practical matters.”

“Settled, assuming the church is available. I will prepare a list of names and addresses of the people I would like to invite to be present. Richard, if we have a wedding dinner, where will our guests be accommodated?”

“For the people important to you, I am more than happy to pay for an hotel. Indeed, if you think anyone will be put in difficulty by the costs of attending, you must let me know and we will with utmost discretion ensure they are not out of pocket.”

“Thank you Richard. You are so generous.”

With that, she threw her arms round my neck and kissed me as she had in the hansom the night before. This had consequences for it had been a good while since I had felt the press of a woman’s bosom against me, and my masculinity reacted against my wishes. In my embarrassment, I half pushed Amelia away. She giggled and said “Oh dear. We really do need to marry soon,” at which I laughed too, ignored the awkwardness and embraced her again, but did not hold the kiss too long for fear we might lose more than our composure.

“To return to the arrangements, would you be happy with a service late in the morning, say half past eleven or at noon, then a wedding lunch in a restaurant or perhaps even here if our numbers do not exceed 20. That would give time for most of our guests to both arrive and get home on the same day, certainly the ones I plan to invite.”

“I believe all the people I will invite can travel here and home again if that is the timing. Let us hope that the church and vicar are available,” Amelia said.

“What will you wear as a wedding gown?” I asked.

“At my cousin Mabel’s there is a trunk which contains the gown my mother wore. I will ask her if it is in a condition that it can be worn, then visit her soon to see if it can be made to fit me. East Grinstead is not far for me to go to arrange a fitting.”

“My next question is a bit more delicate,” I said. “This house was the one I bought with Geraldine. It is, I believe, a good house, and very convenient to my engineering practise being close to the office on the High Street, to the Central station and not far from the West Station. However, it was the house of another woman, and perhaps will not seem to be home for you.”

“I suppose, having been the daughter of a schoolmaster, then a governess, then a nurse, I have always lived in houses that were owned and set up by others. Until you just spoke, I had not thought about that. But I do agree it would be pleasing to make my own mark on a house – put my stamp on it. Oh, but that doesn’t mean I want to take away your influence. Or destroy memories that may be precious.”

“You’ve seen most of the house. Perhaps we could think of some redecorating. This room, as you know, I call my office, though we now have the one on the High Street. In reality it is where I started my engineering consultancy. Oh. I had better check my obligations. Now where is my appointment book? Oh, there it is. Yes I have some meetings in London and one in Southampton over the next month, but fortuitously none after February 22. I will not accept any assignments until the third week of March.”

“Why not until then?” Amelia asked.

“Do you not wish a honeymoon?”

“I suppose yes. It had not really occurred to me that one would go away, nor have I any idea where we would go.”

“Surely it is a time when we should be getting comfortable with each other, without the impediment of daily rituals.”

“Yes.” Amelia said pensively.

“Despite what happened a little while ago when we embraced, I will not impose myself on you even after we are married, though I do hope we can become comfortable with each other in any stage of undress.”

“Richard, I fully intend to be a good wife to you. Any rebuff will, I assure you, be involuntary. Though from my nursing, I know that involuntary actions and reactions can still be hurtful.”

“Thank you for that, my dear. Now what do you say to a few nights in Brighton, then a week or so doing something together of which we will both have memories later?”

“That would be marvellous. You are considering Brighton so we ... er ... can consummate our marriage, and the other time more for a sharing of some experiences?”

“Exactly. From what you have told me, we should take a bit of time away from any responsibilities for a few days so any awkwardness has a chance to be diffused. It could be a week if you like. Then somewhere that perhaps neither of us have been. Of course, it will be a rather cool time of year and the weather could be inclement.”

“It would be marvellous to see Paris. I have always wanted to.”

“I should mention that I have been there. And it is unfortunate that there has been a crash of the Bourse, but that may mean we get more francs for the pound. In any event I could see what arrangements are possible, but I will talk to you before I do anything concrete.”

“That is very considerate of you, Richard. I am beginning to realize it is one of your attributes I most admire.”

“Let us hope we continue in that manner. I’m sure there will be times when we grate on each other’s nerves.”

Amelia suddenly looked a little glum.

“Oh. I do hope not. But I suppose it is only to be expected. We must try to avoid that as much as possible.”

“Recognizing that we all have our failings will, I believe, help, but also that failings are to be understood, not excused.”

“Yes. It is clear that you have lived such things, where I have not.”

“We cannot change the past, but I look forward to doing my best – our best – for the future.” I said, and gave her a small kiss. Amelia smiled warmly. I continued, “Now, as we have announced our betrothal, I wonder if you would accept this small token.”

I handed her a small box that was on my desk. Amelia opened this and took out a small ring made of silver mounted with a small sapphire.

“It belonged to my mother, and nobody has worn it since she died. I thought of selling it, but now it seems appropriate to the present occasion, and it would most please me if you are happy to wear it. We will probably need to get it sized to your hand.”

“Not at all. It fits! What a good omen.” Amelia said, having put it on her finger.

She embraced me and kissed me, and once again my body betrayed me and I eased away from her. She objected,

“Please. Unless it will cause you to get out of control so we act before we are married, I will not be upset. And my bosom is of more or less fixed size, and it must surely press against you?”

“Indeed,” I said and resumed our embrace, which lasted two or three minutes.

We broke our contact as we heard the front door knocker and noise in the hall. Betty knocked and entered.

“Miss Jenkins, the maid from Mrs. Crowley is here. She says you are needed urgently.”

“Oh. Certainly. I will come poste-haste,” Amelia replied and looked about for her reticule.

“Before you go, can you write your full name, and your date and place of birth, and the names of your parents for me. I will convey the information to the vicar so he can read the banns,” I said.

“Certainly. Will he need all of that?” she asked, going to the desk where there was a pen, ink, and paper and starting to write.

“I am not sure, but am trying to avoid delay and extra communications when you surely will be occupied.”

“Thank you, Richard.”

Despite Betty’s presence, she kissed me again full on the lips with a warm embrace. To my surprise, I felt no embarrassment, just comfort and contentment.

I accompanied Amelia to the door and bid her farewell as she and the Crowley’s maid hurried off up the street. It was but a little after three o’clock, and somehow the afternoon and evening seemed to stretch before me. I knew that I must not be idle. There was too much to do, but before I could start, Betty knocked and came in.

“Will you be wanting supper, Mr. Carr?”

“I suppose I had better have something. Has cook made any suggestions?”

"Yes, sir. Unless your appetite is great, she thought perhaps some vegetable soup with bread and cheese. The bread is fresh from the oven. And there is still some apple charlotte."

"That will be fine, but only a small serving of the apple charlotte. I fear my waist is getting tight on my trousers."

"I will tell cook. Will half-past six be suitable." Betty asked.

"Yes. Perfect."

"If I might say so, sir, I am most happy for you that Miss Jenkins will become your wife. She is a very pleasant lady. We all liked her when she was taking care of Mrs. Carr. Though it will be strange to have her as mistress of the house."

"Thank you, Betty. And I rather doubt the new Mrs. Carr will be imperious or stuffy. It doesn't appear to be part of her nature."

"Yes sir. I think so too," and she disappeared.

Though still before 4 o'clock it was already getting dark outside and I lit the gas lamps over the mantelpiece and a lamp on my desk. I decided that if I were efficient, I could write to George and the vicar and then take the first letter to the pillar box and hand deliver the other. The post would, of course, suffice and have it to the vicar by the morning, but somehow I needed some air.

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent

January 16, 1882

Dear George,

Just a very quick letter with some important news. I
mentioned to you that I have been spending some time
with a very nice young woman named Amelia Jenkins who
nursed Mother in her illness. For a number of reasons
on both sides, not least due to our age difference,
we were both cautious. Last night we had a quite long
talk over dinner and realized that we both want to be
together.

I hope that you will be able to give us your support
and best wishes. Let me be very direct and say that
I was for a time worried about the possibility of

Amelia merely wanting financial security. I am convinced that this is not the case. Indeed, she has done sufficiently well in her calling to be somewhat independent, and will lose that by marriage.

Next week I will see Jessop. My intent is that, should I die, a portion of my modest fortune will go to you, though obviously I must provide for Amelia, especially if children should come along. Frankly, that is something I have not yet come to terms with.

It is a somewhat sad that we are so far apart. I have yet to meet your Sophy. Let us hope we can arrange some enterprise that allows us to meet again before too much time elapses.

With much affection and best wishes,

Your father

Richard Carr

* * *

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent

January 16, 1882

Dear Vicar,

Further to our brief conversation earlier today, this is to confirm to you that Miss Amelia Jenkins and I wish to marry. If it is convenient, we would like to do so on February 25 in the late morning. Your early response, if necessary with alternative times and dates, would be valued enormously so we can plan appropriately.

For information, I enclose our full names and current addresses. Miss Jenkins was not sure if you would need her cousin's address in East Grinstead. She lodges

there when she is not assigned to one of her nursing clients. At the moment Mrs. Crowley is about to deliver a child, and after a few weeks will no longer have need of Miss Jenkins. If it avoids difficulties of calling the banns in another parish, then we can arrange for Miss Jenkins to lodge in Tunbridge Wells for a few weeks.

I look forward to your early reply.

Yours sincerely,

Richard Carr, Esq.

I put the letters in envelopes and addressed them. My mental state was such that I needed to extract one to ensure I had not mixed them up in the envelopes. Then I sealed them with wax, using a candle I lit on my desk. There were now some pre-gummed envelopes for sale in the stationers, but I had not yet tried them.

In one of the drawers of my desk I kept stamps organized by their denominations for different destinations and classes. I selected one for Canada and attached it to the envelope for George.

I blew out the candle and lamp and turned down the gas lights, then went out into the hall and put on my coat, hat, scarf and gloves. I made sure I had my key, then went out.

The evening was dark and misty, and I could smell the coal fires. My steps rang on the brick pavement. At the pillar box there was fortunately a gas lamp so I could ensure I posted the correct envelope. Then I briskly walked down Grove Hill Road and up Mount Ephraim to Church Road. The vicarage was a little way from the church, and rather in the dark. I nevertheless found the door and the letter slot and slid my letter through.

I was not ten feet from the door when it opened behind me and there was a shaft of light. The vicar was there.

“Oh, it’s you Mr. Carr. I heard a noise and thought the maid had forgotten her door key. Come in, come in. It’s too cold to gossip on the doorstep.”

I stepped inside. “Thank you vicar. I decided I would like a constitutional and would deliver the information you may need myself.”

“Certainly, certainly. Come into the warmth and sit down. Sherry?”

We were now in a small room adjacent to the hallway which had a fire going. I took off my coat, etc. and put them over a spare chair.

“Just a small one, thank you.”

After pouring two glasses from a glass-stoppered bottle, the vicar deftly opened the letter, read it, then turned to a small writing desk and opened a large notebook, which I assume was his appointment register.

“Yes. Yes. The 25th of February should work. And the information you supply is sufficient. You will only have to arrange the banns elsewhere if Miss Jenkins removes outside the parish. I note that I have a wedding at noon on the day you request, and it is a large party. Would eleven o’clock work? I think half-past would be chancing some confusion of the parties.”

“Thank you. That will be fine, and most fortunate for Amelia – Miss Jenkins – and I.”

“She is a handsome girl ... er ... young woman. And I have heard good words spoken of her nursing work in the parish. I hope you will both be very happy. It is not easy being a widower, as I know from my own experience.”

“I had not known you were married before.” The vicar was now in his sixties.

“It was when I was rather young. Cholera. Took my wife and one of our two children. I was most fortunate to meet my present wife not too long after, and I can only hope that I have given her at least half the happiness and comfort she has afforded me.”

“I am afraid your clock says it is almost six. My cook expects me for supper at half-past, so I will have to take my leave.” I said.

“I assume Miss Jenkins is dining with you.” the vicar said.

“No, we lunched together, then Mrs. Crowley’s maid came with an urgent demand for assistance.” I hesitated, then asked “If I might ask two more things. First, can you recommend a venue where we may hold a luncheon after the ceremony? Second. Who should I be in touch with regarding music and practical matters? For example, your verger and organist.”

“Oh my. Yes, I am forgetting the latter matters. I will pass your address to both the verger and the organist. The former will want to tell you all his rules for your guests – I find he is a little fussy – and you will need to discuss with the latter what music is possible and desirable. As to a venue, there are one or two places that I know have been used, but they are not quite adjacent to the church. The Duke of York and the Sussex Arms on the Pantiles are the two that spring to mind.”

“Thank you vicar. They will give me a start. I will anticipate communication from the verger and the organist. Now I will take my leave of you.”

* * *

That evening I went through my appointment book and made a list of work that I should do to get as much ahead of any obligations as I could. I should, perhaps, have started on some work this evening. I had a couple of reports with recommendations to write. However, instead I wrote a brief note to Jeremiah Jessop, my solicitor, telling him that I was planning to marry again, and asking if we could meet to arrange the revision of my will. I also drafted an invitation to the wedding, leaving blank the venue of the luncheon. Finally I made myself a list of things that I wanted to do tomorrow and Tuesday.

First, I would post the note to Jessop – or perhaps just deliver it and see if he were available immediately. Then the Duke of York, and if that were unavailable, then the Sussex Arms. We would need to hire cabs or an omnibus or a charabanc. The bank! Yes, I had better go to the bank and ensure my account was in order. It would be good if I could ask about an account for Amelia. I much prefer a woman to have her own money to spend. Possibly I am a little pedantic about it, but I do not like the idea of a wife simply giving her husband’s name. At the moment, she would not even be considered a separate person once we married. There were political discussions to change that. Of course, once married, I would be responsible for Amelia’s debts. Hmm. While I doubt there are any, I would rather know in advance.

All these things I wrote down, then added the verger and the organist. Then I added wedding clothes and wedding ring.

Then I made a list of the people I would like present at the wedding. My family in Tonbridge was easy. My friends were a little more difficult. Some were really business acquaintances.

A best man? I would ask Lawrence Stone. We have known each other since we were both apprentices to different engineers. He was still with the Great Western Railway, working with Daniel Gooch on their locomotives and other enterprises. Given that he may have obligations, I wrote to him right away. A small pile of lists and envelopes was beginning to develop on my desk.

I heard the clock in the hall strike ten. Much used to working until midnight, I nevertheless decided to retire early and after lighting a small lamp, extinguished the gas and other lights and went up to my room.

My room! It would soon have another occupant. Or would Amelia wish to sleep separately? Such thoughts occupied my mind as I readied myself for bed. Tonight I would need my nightcap and bed-socks. Fortunately Betty had put the warmed bricks in the bed.

* * *

Jessop was in his office the next morning, and we settled all the matters I had for him rather quickly, though I would have to go back to sign documents.

The bank was a little more awkward than they could have been, but were prepared to allow Amelia to have an account. Of course, she probably already had one – I had failed to ask her. There had been several acts of parliament over the last few decades that related to the property of married women. Things were improving, but at a very slow pace.

Somehow all the elements of my list got satisfied, and almost all our invitees were able to come to our wedding. In the middle of our preparations, the country was afflicted by a storm of controversy concerning the sale of the elephant Jumbo by the London Zoo to the American showman P. T. Barnum. This seemed to be the only subject of street conversation. However, it would be after our wedding that the animal would be moved to the United States. Oddly, his life ended with a collision with a railway locomotive in Canada. He too had a life with many travels.

Brighton – Part 1

Amelia was looking out the train window as the train drew into Brighton. She had been rather quiet since we left Tunbridge Wells. Of course, so had I. Each of us was a little in need of recovery from the bustle of the day with all the prescribed proceedings as well as the happy exchanges with our guests. The two charabancs I – we – had engaged were a great source of jollity. For a small extra fee, I had one of them return for two trips to the train stations so guests would not have to arrange to get to the station. I believe it relieved our guests of having to watch their time so closely.

It was quite dark, even though my watch was not yet showing five o'clock when we descended from the train carriage and made our way off the platform. We had only one valise each, so really no need of porters, as we would return to Tunbridge Wells after three nights. Nevertheless, I engaged a hansom cab for the short distance to the Grand Hotel.

Amelia was very quiet. Perhaps she was nervous about what might happen later. We were greeted at the door and the clerk at the desk gave our key to a porter who took our bags and directed us to the vertical omnibus. This is now more commonly called a lift, or in America an elevator. However at that time it was still one of the very few in England. Indeed, the first outside London where there were only a couple when the hotel opened. If I were not on honeymoon, I should have written to the manager to ask if I could be shown the workings.

We were led to our room, or should I say rooms, for I had engaged one of the suites with an attached bathroom. Amelia exclaimed "Oh. Richard, we have our own bathroom. And the rooms are warm." as the porter turned up the gas lights. I tipped him and closed the door. As a precaution against an embarrassing interruption, I turned the key.

"I thought you would like it. Now. How would you like to spend our evening?" The question was, I knew, loaded, also fatuous.

Amelia's response was a bit different from my expectations. I thought she might request that we indulge in some affection but go very slowly towards a full congress. Instead, she said "Richard, I think that I am rather anxious to try to overcome the fears engendered by my past experiences. Perhaps it is better to try sooner rather than later, even if it proves awkward and perhaps ... unsatisfactory."

"How wicked to not even wait for dinner." I teased, smiling, but Amelia's expression was rather subdued.

"Yes. I suppose. But I think you know it is neither wickedness nor wantonness."

"Indeed. And I will be as gentle as I can be."

"There is perhaps another impediment. I have just finished my courses, but sometimes they seem finished when they are not."

"Is it dangerous for you if they are not at an end?"

"I believe surely not, but it may be ... er ... unaesthetic. And certain faiths prohibit congress when a woman has her courses."

"Why don't we see what the situation is before we add to our anxieties."

"Yes. ..." Amelia trailed off.

It was clearly up to me. "Shall we undress?"

I noticed a slight look of panic in Amelia's eyes. She said, "Should I go into the bathroom and put on my nightdress? My cousin Mabel gave me a beautiful one, but then cautioned it might get ripped during the ... oh, I don't know what to say!"

"Frankly, Geraldine always was under the covers before I came to bed. I must confess I never truly saw her naked. The only naked women I have ever seen were in a rather obscene review at a disreputable club in London. I actually walked out, not because the nudity offended me or that I was not interested, but the way the men in the audience behaved I found upsetting."

"Oh. I had assumed you were ... er ... more familiar with women's form."

"No. I would imagine your knowledge is much more direct and informed than my own."

"But I know very little about men. We were shown pictures, of course, and I have seen two cadavers. Several of the other nurses fainted. However, we were certainly not permitted a true anatomical inspection, and not even a close look."

I laughed. “Are we not a pair? Perhaps we could do worse than help each other undress. Then maybe wash so that we feel fresh and clean. And then see what we jointly are interested in trying. At least we will both learn a bit about the other.”

“Richard, that is a good idea. It gives me some sense of relief, even as it also raises a sense of panic. I have never been truly naked before any person other than my own mother and the midwife. But you are now my husband who I love and trust. Let us do so.”

I kissed her gently and briefly on the lips. She was ready for a longer embrace, but I stepped back a little and began to undo the buttons of her costume, which had a jacket and long skirt. Amelia stood quite still while I did this, watching me. There were infernally many buttons, but finally they were undone and I took the jacket off her.

Amelia stepped forward and slipped off my suit jacket, then unbuttoned my waistcoat, and loosened my tie so I could lift it over my head. There was a handy sofa upon which we placed the garments.

It was my turn, so I unfastened the ties of her chemise and helped her pull it over her head. She in turn unbuttoned my shirt, but was somewhat confused by the collar studs and cuff links. I helped her and my shirt came off.

Her skirt was hooked by a sort of belt at the side and then it unwrapped, since the front was doubled across her. This came off surprisingly quickly, and she was now down to slip, hose, corset, under shift and drawers. I quickly undid the slip and took it off her.

I had already loosed my braces, so Amelia unhooked the front of my trousers, then hesitated as she saw the buttons of my fly.

“Would you prefer I undid the fly buttons?” I asked.

“Perhaps this time.” she said. Then she laughed and said “But certainly not the next.”

“You had better turn round.” I said.

“Why. May I not see?”

“Oh. I will not undo the fly until you have turned back, but first you must turn round.”

“I cannot see why, but I did promise to obey.” and she turned round.

I gave her a gentle slap upon her derrière, and she squealed in surprise.

“That’s for being so naughty. As is this,” and I kissed her again.

I undid my fly, and dropped my trousers and added them to the growing pile. I still had on my drawers, socks and under-shirt. I am sure my excitement was visible. Then too, her nipples were showing through the under-shift just above the corset’s top.

“Richard, I thought you were going to try to unlace my corset, but this one has hooks at the front.” She pointed to the fastenings. I stepped up to her and took each side of the corset so I could push the hooks together to undo them. In doing this, I got a marvellous contact between the backs of my hands and her breasts. I saw her blush, not for the first time.

I stood still while she grasped the side of my under-shirt and pulled it up. I raised my arms and was naked to the waist.

“Richard, can you be very careful in taking off my stockings please? They are silk and I would like to keep them undamaged.”

This I was more than happy to do. I gestured to her to sit down in an armchair, then I reached under the bottoms of her drawers on her left side and found her garter. This was elastic, a relatively modern improvement to clothing, and I eased it over her knee, calf and ankle. I did the same on the right leg, then gently rolled first one then the other stocking down her legs. I must confess I made sure my hands were in contact with her skin. It felt very special, and was something I had not done before. Geraldine allowed me to caress her, but somehow doing it in the dark and without the feel of the silk was much, much less exciting.

“I fear that my socks are a lot less exciting to remove.” I said.

“Nevertheless, they must be off.” And Amelia quickly removed them.

“You have the advantage of being able to see my chest, but I not yours.” I complained in mock sorrow.

“Then you had better repair the deficiency. Or will you need assistant engineers to accomplish that?”

I almost tore her under-shift, but she raised her arms just in time. Her breasts were marvellous. Much, much more alluring than any in paintings in the galleries.

“May I ...” I said reaching out my hands. Amelia looked a little startled, then calmed and said,

“Of course. You are my husband. I presume I may do likewise.”

For two or three minutes we stood with our hands exploring each other’s torso.

“Shall we remove the last garments?” I asked.

“You may go first, as I have a belt for my courses also, while I believe you have but your drawers.”

Her drawers had an elastic waist band, and then were just loose pantaloons down to a few inches above the knee. I removed them rather easily to reveal a rather simple belt that held some sort of pad against a forest of dark curls.

“Let us remove your drawers, then go into the bathroom to undo the belt.” Amelia suggested. Indeed, she was undoing the tie to my undergarment and it was off before she said the last word.

“Oh my. It is not as I quite imagined.”

“Does it offend or upset you?”

“No. It is ... we never were shown pictures of it when ... erect.”

She turned and went into the bathroom and I followed. She loosened the ties of the belt arrangement and took it off.

“Oh good. There is almost no sign of blood on the cotton,” she said.

I turned on the taps and found a good flow of hot water, so after adjusting the temperature so it was comfortable, I found the flannels provided and made one wet and handed it to Amelia, then prepared another for myself. I washed my face as much as my beard allowed, then my underarms, and rinsed the flannel. Amelia watched and followed my example. Then I washed my privates, re-rinsed the flannel, and finally my backside, then soaped and rinsed the flannel.

“What a good idea,” Amelia said and followed suit.

I passed her a towel and we each dried off. Throughout this exercise we were eyeing each other intently. I took the towel from Amelia and hung it over the bar provided and my own towel likewise. Before I could say anything, she threw her arms around me and said “Oh Richard, I am so happy I married you, after ... my experience, taking time to undress has made me much less nervous.” Then she quite suddenly kissed me deeply.

Her arms were round me, her lips upon mine, her breasts against my chest and my manhood squeezed against the gentle round of her belly. It was too much and my seed squirted violently between us.

Amelia jumped back. I said, “Oh. I am so sorry. It has been too long that I have not had such a release.”

“Is that what is meant by an ejaculation?” she asked with a tone of curiosity.

“Yes. I should have warned you I was close to doing so. Here, let us tidy ourselves.” I passed her the flannel again, and took mine also. However, before she used it she touched a glob of my seed that was on her belly and ran it between her fingers then smelt it.

“It is a little sticky and a slight smell of something like I have smelled at a laundry.” Then she wiped herself off. As there were some drops of semen on the tile floor, I wiped them with my flannel, then washed it out carefully.

“There. Now we are cleaned up.”

“Richard, does this mean we cannot ... er ... consummate the marriage tonight?”

“Only if you do not want to. It will take me some period of time to regain my state of hardness.”

“Oh yes. Now you look more like the diagrams.”

“Perhaps the diagrams look more like me,” I countered, laughing.

“Of course. How silly of me. But how long must we wait?”

“When I was eighteen, it would perhaps have been thirty seconds. Now perhaps that in minutes. I don’t really know. But we will have time to talk and learn about each other. That could be helpful to become more comfortable together.”

“Yes. That is so. Shall we use the bed for that?”

“It seems the obvious place. However, my little accident reminds me that it may be sensible to bring a towel to lie on and a couple of handkerchiefs or your cotton ... I don’t know what to call them ... to avoid soiling the sheets.”

This we did. Amelia lay on a towel and I lay beside her. We pulled up the covers and kissed for a few minutes and I caressed her breasts. I was fairly certain I was getting hard again, but somehow didn’t feel quite ready to complete our union.

“Amelia. I think I would prefer if the covers were back and I could see you. I find your body fascinating.”

“I was about so say something similar. It is so different from my expectations.”

I threw off the covers in a trice. Amelia gasped “Naughty!”

I kissed her, running my tongue over her lips. She responded. One of my hands was round her breast. I squeezed her nipple, which was hard. I heard her intake of breath. Gently I kissed down her neck to the nipple and sucked it, then the other, and while I did so I moved my hand to her riot of dark curls. Her legs, whether by volition or not, eased apart and my hand was on her quim.

“You are most marvellously wet, Amelia.”

“Oh no.” she cried. “First you ejaculate, and now I have soiled myself.”

“No, no! You have not. It is only the liquid that prepares you for congress.”

I sat up and took some of the liquid on my fingers and brought it up where she could see. “You see it is clear and slippery, and does not smell of urine. It is meant to allow the ... er ... penis to enter more easily. I release something similar.”

Amelia looked down.

“Oh yes. You are hard again, and there is a droplet on the tip. May I touch.”

“Only if I can touch you.”

She laughed and reached out and gently touched my penis. Then she felt the tip, and finally put her hand around the shaft.

In the meantime, my hand returned to between her legs. She was very wet. I gently slipped a finger inside her and heard a small “Oh.”

“Did I hurt?”

“No. Just that I wasn’t expecting it.”

“How is it when I touch you here.” I said, moving my finger to the front of her slit and gently moving it over she small button I found there. This had been something Geraldine had liked. Amelia let out a very strange mixture of a cry and a moan.

“Sorry. I didn’t mean to hurt you.”

“No. No. Do it again! I’ve never felt anything like that.”

So I did, with similar noises accompanying my actions. I was curious as to what I was actually touching, and asked “May I look at what I am doing. I have almost no idea except that it seems to give you immense pleasure.”

“Oh Richard. You may look as much as you like, but do keep doing that for a while longer.”

I sat a bit further back and gently pushed her legs a little further apart so I could see her cleft among the thick curls. They somewhat obscured things, but I could see a sort of hood with what looked like the end of a small finger just peeping out. I touched that and Amelia made more noise and from the lower part of the cleft I could see more liquid glistening. I was feeling very excited now, and glad I had released earlier.

Amelia’s noises increased and suddenly she brought her legs together.

“Oh. Too much. Too much.”

I let her calm for a few seconds.

“Richard, I seem to have had the lion’s share of the pleasure. I think it is time for us to ... join.”

“Would you prefer to be above so you can control my entry into you?” I asked.

“Is that possible? I thought the man lay on the woman for congress.”

“There are likely many ways. Street women are known to do it standing up against a wall. I have seen it myself in the disreputable parts of London.”

“I think if you are gentle, then you should be on top.”

I helped her to lie more centrally on the towel, then rolled on top of her.

“Can you position me at your opening?” I asked.

Without answering, she reached down and took my organ and gently moved it against her warmth.

“I think there, Richard, but do not push hard please.”

“It may help to make the opening wider if you raise your legs, though that ultimately also lets me come deeper which can be nice if we are both comfortable, but may hurt otherwise.”

She did not hesitate, but raised her knees, and as she did so I slipped inside a little.

“Did you feel me enter you then?” I asked.

“Yes. It feels odd, but rather pleasant.”

“Very slowly, I am now going to gently withdraw then slowly thrust forwards. Say if there is any discomfort.”

I did this, and my forward motion elicited another sigh/groan.

“I think I shall have to kiss you to prevent that noise. We may get the police called to apprehend some miscreant.”

“Oh Richard, kiss me as much as you like, but do thrust gently into me again.”

I kissed her. She kissed me. My hips moved forward and back. I was more or less out of control. Very soon, sooner than I wanted, I too groaned and had my second emission of the evening. We lay joined for over a minute. Then I found a handkerchief and gave it to her. “I think we are both rather wet and that you will need this.”

I took the other handkerchief and withdrew gently. We were indeed very messy, but the handkerchiefs avoided any soiling of the sheets.

We put the handkerchiefs on the bedside stand and I lay down beside Amelia and we pulled up the covers.

“I think we almost consummated our marriage there,” I joked.

“Then surely we will have to keep trying,” Amelia shot back.

I kissed her gently and pulled her into my arms. She said, “Our medical training doesn’t talk about such things. With all the wetness it was so easy and pleasurable. When ... when I was ... raped ... there was not lubrication and besides the tearing of my hymen I was made terribly sore. And the evil man, I think he did himself an injury.”

“How so?” I asked.

“In the morning I overheard one of the footman talking with one of the maids who had helped to repair my clothing that was ripped. He said ’Stupid bugger. The doctor came last night because he tore ’is foreskin in doing it to ’er. Now he’ll have to join the Hebrews.”’

“I hope that in some way this evening has pushed that pain away.”

“Oh yes. Thank you Richard. Thank you for your gentleness, for your love, for marrying me, for .... what you just did to me.”

“I suppose so, but it is not me doing something to you, but the pair of us helping each other to find pleasure together.”

“Yes. That is truly so. But now I think there may be a bit of a problem with it.”

“A problem?”

“I find I am devilishly hungry. Not for a large meal, but definitely for some food.”

It was by now around seven o’clock.

“We were remarkably quick to ensure your claim to the title of Mrs. Carr is irreversible.” I said smiling as I looked at my watch.

“What time is it?” Amelia asked.

“About seven. All that discovery in about an hour and a half.”

“Well. More time for more pleasure I suppose.”

“I will not disagree. What would you like to eat?”

“I’m not sure. Can we take a short walk along the front?”

“If we dress warmly, we certainly can.”

We dressed quickly, and I noticed Amelia omitted her corset but put on a sort of woollen jumper rather than the jacket of her costume.

Off we went, and quickly saw a sign that said "This is the plaice" with a picture of a flat fish. It was one of Mr. Isaac’s fish and chip shops.

“Oh let’s eat there.” Amelia said.

“You want fish and chips on the first night of your honeymoon?”

“Yes. I do. Perhaps to be followed by another ... er ... helping of sausage.” And she pulled me forward into the restaurant, which had regular tables and carpet. I was beginning to realize my new wife had a delightfully playful and wicked side to her. I just hoped I could keep up with her enthusiasms.

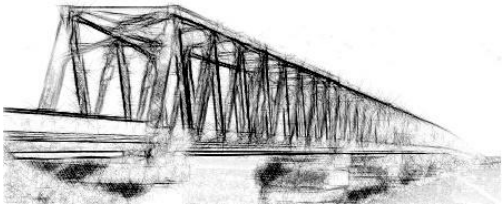
* * *

I will return to our time in Brighton later. Suffice it to say now that the three nights in the Grand were just right for us to get to know each other intimately. We spent rather less time in bed than we might, as Amelia knew from her nursing training that too much exercise of the pleasurable parts could result in some problems in urination, with some doctors subscribing to the possibility that the excessive stimulation led to the introduction of germs.

We nevertheless enjoyed ourselves greatly without excess, and found we were extremely comfortable in each other’s company in all stages of dress or undress. Moreover, after even so short a time, we were surprised to find that we could be completely naked and yet talk about practical matters as if we were in an interview with the bank manager.

We came home on Tuesday morning and spent two nights at home – even Amelia called it that – before we left for Holland. It was a joy to fulfil our marriage in our own bed, but Amelia was a trifle worried that she made too much noise. I would have to check how far sound travels in the house.

New partnerships



For the second part of our honeymoon, Amelia and I had, given the crisis in the Bourse, decided to go to Holland for a week. It had been my wish to visit the country for some time to look at the canal works and the Moerdijk Bridge, which was for a time the longest in the world, and built in a difficult but necessary location to allow the joining of the railways north and south of the Maas, as the Rhine was called at this point. Indeed I had managed a rather sporadic correspondence with a Mr. F. J. Frohn of the Rijkswaterstaat, which was effectively the Ministry of Transport. The "water" was the canals, but responsibilities spread to railways and bridges.

Frohn was most helpful in suggesting a pension near where he lived in Feijenoord, which was a suburb of Rotterdam. We were easily able to get there in one day using the ferry from Queenborough to Flushing, which I learned to my horror is a mighty corruption of the true name Vlissingen, though we had to leave early in the morning to make our connections from Tunbridge Wells to Queenborough.

Later in the year we would have been able to go via Dover, as the pier in Queenborough burned in a big fire on May 18, 1882, and the ferries were diverted for some months to a longer route, though more convenient for us had we been able to use it.

Not sure how tired we would be when we arrived in Rotterdam, we had arranged a meal at the pension in advance. Though there were some difficulties with communication, we very much enjoyed this dinner, which stared with a hearty pea soup, then a main course that Amelia – having prudently found both a map of the Netherlands and a Dutch phrase book on the High Street before we got married – said was 'farmers cabbage with sausage'. I think it was kale and potatoes and sausage, seasoned with onions and some spices. Simple but satisfying. We were given a strange tart for dessert which turned out to be made with quark, having strawberry preserves on top. There was coffee or tea to finish, but we had been warned that Dutch coffee is very strong and might keep us awake. We therefore chose tea, and were rather surprised that it was served without milk, which we nonetheless found acceptable.

Though it cannot have been yet eight o'clock, we found ourselves ready to retire, and did so, even forgoing the conjugal activities that had been a nightly part of our ritual until then. We did wake early, though, and enjoyed ourselves then. However, we found the fact that the room did not have a water closet or bath less than ideal. We could survive two nights, of course, and our hosts were most friendly.

* * *

In the morning, Mr. Frohn arrived with a cab at half-past eight to show us the bridge. He had with him his fifteen-year old son, Anton, whose spoken English was better than his own. We offered French, but it turned out that was even less helpful. Nevertheless Frohn's English was still better than our Dutch. He had written to wear clothing suitable for being outdoors, and it soon became clear why. The cab took us to a nearby railway station, where we took a train toward Dordrecht, but got off just after that city at what was not much more than a halt in a shunting yard.

Anton explained that we were going to ride the inspection and maintenance train across the bridge, which would deliver some materials to a place where some minor repairs were being made. I had apprised Mr. Frohn that I had been a widower and was on holiday with my new wife, and through Anton he asked if I had a family from my first marriage. With some awkwardness I explained about George and his work as a trainee doctor. In the process, we learned that Mr. Frohn had eleven living children. There was some laughter about the house rarely being quiet.

We had to walk across some of the railway yard tracks to our train, if it could be called such. A small 0-4-0 shunting engine with two flat cars partly laden with materials and about 8 men carrying tapping hammers, and a brake waggon. We ascended this last conveyance and the locomotive puffed valiantly and we moved off at a walking pace as far as a signal.

In a few minutes there was the sound of a train whistle far off, and soon an express train rushed by. The signal changed and our little engine puffed and spluttered to haul us possibly five miles at less than 20 miles per hour. We got just south of a place called Sterrenburg and quickly pulled into a siding. Another express roared by almost immediately.

We had to back out of the siding, and then were quickly to the bridge. Anton was giving us a running commentary of what we were doing, which was to drop off men at regular intervals across the bridge. They would inspect the bridge and track in a given section, first one side, then the other. We would reverse the procedure later. The hammers were to tap rivets and bolts to see if any were loose. Today's inspection was, Anton conveyed, an interim one. A more thorough inspection called for men to climb up to the girders above and down to the starlings and see if all was in order.

For Amelia and I, riding on the open plate of the brake waggon, the slow progress across the bridge gave us a full appreciation of its size and the immensity of the River Maas at this point. Later she told me that simply riding the regular express would not allow an understanding of the work that went into building such a structure.

On the Moerdijk side of the bridge we pulled into a siding and there was a horse and cart waiting for us. We were taken for coffee and a pastry – koffee en gebaak – at a small café. Then back to the work train to pick up the men from the bridge.

During our journey, Mr. Frohn at first was cordial but relatively quiet, but when he learned I had worked on the Victoria Bridge he became quite excited. Anton relayed that he had read Hodge's book, but had trouble translating what were quite technical questions about what I surmised was the grout used to seal the cutwater stones. However, we managed as well as could be expected, and by the time the train let them off in Feijenoord had enjoyed a great exchange of ideas and information. Amelia and I had decided to continue to Rotterdam Delftsche Poort railway station so that we might sight-see in the city. We arrived there sometime before noon.

Amelia had planned a route that took us to the Museum Boymans.

"Did you want some luncheon?" I asked.

"Given that we had that rather large piece of appelgebak with coffee, I'm not sure we need much," she replied.

There was a small cart with dutch flags selling fish. A blackboard announced 'hareng', and included something called 'brodje hareng'. We figured they were herring sandwiches and with fingers and some pointing, managed to purchase two. The little cart was very popular, with many people buying herrings, mostly cut on a small plate with onions, and eaten with a toothpick. One man was given a whole herring, minus only the head, which he held by the tail and ate by lowering it into his mouth.

I found the fish a little too salty for my taste, but Amelia seemed to like it very much.

"And now I'm supposed to kiss you, I suppose," I joked.

"It is a good thing we both had the herring and onions, Richard."

We spent about two hours in the Boymans, then found a café for some tea. Continuing our walk in a south-westerly direction we were able eventually to get to Delftshaven and see the place where the American Pilgrims left for the New World. It seemed odd that the tolerant Dutch threw them out for being too strident in their religiosity.

By now it was late afternoon, and still being just February 28, the light was starting to fade. We saw a sign for a restaurant and, when we examined it further, saw the description

"Indische-Chinees" written underneath the name. We went in, and though we had to gesture and point, ordered a rijsttafel, which turned out to be very good.

At the end of the meal, we wanted a hansom cab to return to our pension. I had the address of the pension, so I drew a small picture of a horse and cab – a very poor likeness I fear – and pointed to the address on the same sheet of paper. The proprietor, who appeared to be Eurasian, said "Ah. Ja." and disappeared outside. In a minute or so he came back and waved us to the door. I had already paid, but added a guilder or so to the gratuity.

I showed the cab driver the address, and he conveyed us over the new Willemsbrug to Feijenoord to our accommodation. Again, we retired early, but this time lay for some time in each other's arms.

"Did you hear Anton when he said his mother and father had had fifteen children, eleven of them still living?" Amelia asked.

"Yes. I wasn't sure I had heard correctly at first."

"Well, Richard, it rather raises an issue that we, both of us I think, have rather ignored."

"You mean, having children?"

"Yes. If either of us did not want children, then we should, I suppose, have been taking some precautions. In my nursing training, the instructors were not very forthcoming, but I did learn that the vinegar douche that was prescribed for ... er ... your first wife...."

"Please, let us use 'Geraldine'. I realize it is awkward for you since she was your patient and you got used to Mrs. Carr."

"Yes. Geraldine. And also what was brought to me by the aunt of my ... tormentor. Anyway, using such a douche after congress can, of course, reduce the chance of conception. And I learned in some readings that were considered perhaps inappropriate for women that there are rubber or membrane sheaths, sometimes called condoms, that the man can wear."

To stop this flow of words, I kissed Amelia on the lips.

"My dear Amelia, I will be happy whether you have a child or not. I think that more than four might tax my equanimity. Did you think of emulating Mrs. Frohn?"

"Oh no! The idea of fifteen confinements gave me quite a twinge, almost a physical discomfort when we were told. As you know, I have attended a number of births. They can be both joyous and distressing, but always quite dramatic. I agree wih you, more than four would not suit me either."

“Then I propose we simply enjoy each other as we feel so inclined and see if an infant is produced. If and when we have a child, let us revisit this discussion and decide if we want to try to reduce the chance of another.”

“Richard, you make it sound so reasonable a course of action. Thank you.”

* * *

We travelled the next day – the first of March – to Amsterdam, where we stayed at the Grand Hotel Krasnapolsky. Because of the difficulty in communications, I had not been able to determine if they had suites with private bath, and in the event our room was not so equipped, but it was not far from the bathrooms, so we were able to bathe on two occasions during our stay. The newspaper advertisements for hotels are increasingly mentioning private baths, and it is not difficult to understand the reasons.

We arrived around noon at the hotel, and there was some discussion as to the readiness of our room because we were there before half past two. The clerk at the desk fortunately spoke excellent English, so we suggested leaving our valises in safe keeping and coming back later. At this juncture, it became clear that the room was actually ready, and managing our luggage would mean extra work for the desk staff, so we were presented the register and given our key. Well, a porter was called and he was given our key. I left a couple of guilders for the clerk, as it was much more convenient for us to alter our attire for walking about.

My memories of this week in Holland are rather like a brochure for Thomas Cook and Co. We walked and took a boat tour in Amsterdam. We went for a day to Utrecht, another to The Hague – do not ask me to pronounce the Dutch version of the name – visited Alkmaar to see the cheese market, to Haarlem, and to Zandvoort to visit the newly opened Kurhaus.

We concluded our holiday with a night in Middelburg, where the town hall was truly breathtaking in its beauty. Middelburg was but a few miles from Vlissingen, and staying overnight allowed us to avoid having to rise at an early hour to catch the ferry. It also permitted us to have a very fine meal of sole – the Dutch called it Zeetong, along with an excellent bottle of hock.

As we lay together that night, Amelia said “I think I’m ready to go home.”

“And where is home now for you?” I asked.

“We have been married less than two weeks, but I believe home is wherever we are together.”

“What a marvellous sentiment. Yes. I agree. Home is wherever we are together. However, I do believe that we are best together in a place we mould to our own needs and wishes.”

"Yes. I do think that as well. And when we get back ... I was going to say home, but we have just redefined that, so I will say Tunbridge Wells, I propose as you have suggested that we consider some redecoration to make the house ours, though I will try to be sensitive to preserving mementos you may have of ... Geraldine."

"Thank you. I cannot think what mementos there may be, but surely there are some. But the house has not had any refurbishment since we bought it. It is time for some redecoration, and I shall be happy to work with you on that."

* * *

On the journey home we started to talk about redecoration, and decided to start with the rear bedroom, which had been Geraldine's sitting room, then consider what had been George's bedroom, to be followed by some revision of the bathroom and WC. However, on our arrival at *Sans Pareil*, Hilda came bustling out of the kitchen,

"Welcome home, Mr. and Mrs. Carr. I hope you had a nice holiday."

"Yes, yes. Wonderful!" we both replied.

"Cook has a stew on the stove, and you can eat whenever you wish. Betty will take care of you, but I stayed to tell you Mr. Cavendish from the nursing agency called to see you. He has a client whose nurse's father has been in an accident and is not expected to live. He wondered if you could step into the breech, so to speak. I told him you were expected back before night, but that I could not anticipate if you would be able to assist him. His message is on the desk in Mr. Carr's office."

Amelia said, "Thank you, Hilda. We will take care of it. No doubt you should be getting home to your family. I appreciate your waiting until we came in."

"Well, you are actually home before my regular departure."

I said "I think we've lost track of the hour. On the continent the clock is one hour ahead."

"Richard. Do you think I should take on this assignment? I am afraid if I do not, Mr. Cavendish and others may think I am no longer serious about my nursing work."

"If you feel up to it. The journey surely must have made you tired."

"Let me read the message."

Though she had only just doffed her coat, Amelia dashed into my office, then returned in a few moments, saying

"It appears Cavendish has someone for tomorrow, starting in the afternoon, but he wants a nurse on site, though I'll be allowed to sleep, as they have a maid who will keep watch on my patient unless I'm needed." She followed up by saying, "Hilda, the house is not far out of

your way home. Perhaps you could leave now with a message to the patient and the nurse whose father is injured that I will be there within the hour."

Needless to say, we had a rather hurried meal and I assisted Amelia to prepare a bag with a change of clothes while she changed into what was essentially a nurse's uniform. We kissed and she was out the door.

Slightly nonplussed, I went to my office and dealt with the post that had arrived while we were away.

* * *

253 Avenue Haute Ecluse
Montreal, Quebec

April 14, 1882

Dear Father and Amelia,

First of all, my heartfelt congratulations and best wishes for your health and happiness together.

Second, thank you for the photograph of you both. This reminded me that I have not sent you one, and Sophy and I decided that our betrothal was a good occasion to get one made for ourselves, and it is enclosed. So now you know what Sophy looks like, and also my more recent appearance with a beard. I decided to follow Father's example and avoid the discomfort of the razor every morning.

Third, I hope that I will not offend by using Amelia as a form of address. I mean no disrespect, but would feel uncomfortable with 'Mother' and awkward with 'Step-Mother'. However, if you have a preferred form, I will gladly use it.

Having mentioned our betrothal previously, Sophy and I should share some of our thoughts for the future. I am now in the process of completing a second residency, which I undertook to get more experience in obstetrics and in public health. Sophy is finishing an apprenticeship with a local apothecary, though they are now starting

to use the word pharmacist. In England I think you use Chemists or Dispensing Chemists.

Our current intention is to marry during the Christmas period at the end of the year, then both undertake some temporary work as we can find it, such as locums, to save as much as possible so we can take a long leave in the Spring and early Summer of 1883 and come to England to visit you and show Sophy some sights. We then hope to take up work in Manitoba, which is booming now that the railway is established between here and Winnipeg.

We have been in correspondence with some people in St. Boniface, which is across the Red River from Winnipeg. It is mainly French speaking, which now gives me no difficulty, and Sophy has French as her mother tongue. She will have to apply for a license there, but we doubt there will be much trouble with that. She has excellent references (in both languages) and there is a need for medical staff of all types. Hence my studies in obstetrics and public health. Perhaps we can even talk of the engineering aspects when we have the occasion.

In reading the above, I realize I have talked a lot more about myself, when my intent was to congratulate you both. In any event, you know you have our best wishes at all times.

With deepest affection,

George and Sophy

* * *

Sans Pareil
Mountfield Gardens
Tunbridge Wells, Kent
May 2, 1882

Dear George and Sophy,

Your Father is away on an assignment with one of the railway companies, so I have decided to reply for us so you do not wait too long for a letter. Commissions seem to come in bunches, and he has had a couple of very busy weeks, but there will then likely be a calmer period.

Thank you for the photograph. The cardboard kept it in good condition. I am this day going to a shop on the High Street that will frame it for us.

Both of us are excited that you will be coming to visit next year. Richard and I have discussed your visit and would like to offer you First Class passage as a wedding present. Of course, you will find that there is accommodation for you here, and I very much look forward to our all getting to know each other.

Your coming will be an incentive to do some redecoration of Sans Pareil. Richard asked if I were comfortable living in a house that had been established and given its style by your mother Geraldine. (It has, I must admit, taken me some effort to stop referring to her as Mrs. Carr, since she was my patient, as you know.) In truth, likely because of my nursing career, I had not thought about the matter, but I do appreciate his solicitude to my feelings. Given the possibility that you may have some memories, do let us know if there is any aspect of the house that holds particular recollections for you. Richard thought more of small mementos and some of the pictures or ornaments. We will, even if we take them down, keep them at least until you have had a chance to decide if you should want any.

I mention the above because the first rooms that we intend to redecorate are the back bedroom that your mother used as a sitting room, then the room you had as a boy. I used the latter when I was here as nurse, and I do not recall any particular decoration, but

Richard may have arranged that it be cleared before my arrival. Do let us know if you think of anything. It is not like Richard to throw anything away, but we should find any items you would like to have.

You mentioned that you are interested in public health. Richard and I have been talking about that, since it rather bridges medicine and engineering. Oh. "bridges" was an unconscious slip! However, I have a question on which you may be able to give an opinion. That is, do you believe that we should avoid green wallpaper or material. I have read that Scheele's Green is based on arsenic and is toxic. On this matter, there are some reports by doctors, but so far no public warning. However, we had better choose a colour that is not based on something that may poison us. Moreover, despite the fashion for dark colours, I am determined to use lighter ones to brighten the rooms. So far I have not managed to excite any great response from Richard about colours. Perhaps you can tell me if he is much interested in them, as I fear he is almost indifferent to the wallpaper and paint and fabrics. (Please don't take that as a complaint. He is such a kind man, and I love him dearly.)

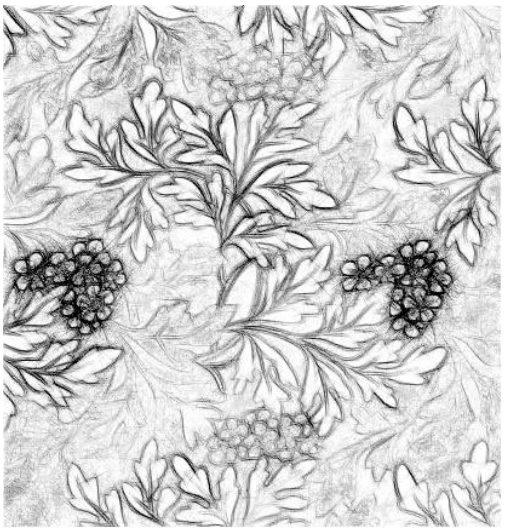
We hope that your plans for your future come to pass with as little fuss as possible. It is quite exciting to think of you in a new, young city in a newly founded country.

Our thoughts and love to you both,

Amelia Carr, for us both.

PS. You may certainly address me as Amelia. Indeed that is my preference.

Renovations



From our conversations, it was clear Amelia and I both realized that we would need to pay attention to each other's feelings and memories. We sometimes found ourselves trying to anticipate the other's attitudes and emotions to the extent we became a bit awkward. Fortunately, we seemed to be able to overcome these times with laughter and acceptance.

While Amelia continued to act on occasions as an emergency nurse, she showed an increasing interest in my work as it concerned safety and public health. She had, indeed, mentioned to George that this might be a topic where our careers could overlap. Moreover, like Geraldine, she was helpful in proof-reading reports that the consultancy produced for our clients. One of the early modifications in our household arrangements was a quite simple one to allow us to share my "desk". This was, as you may recall, a simple table with a small chest under it.

The change came about within a few days of our return from Holland, when Amelia asked me, "Richard, I have a question about how we should arrange to spend time in the house when we are both here. I know that you do quite a lot of your consultancy work from the front room we call the office. I am sure that when you are busy with that work, you would not like me to be bothering you. However, I wonder if, when I am reading, writing letters, sewing or such, I might be welcome. It would save on heating another room. Though I confess my real reason is that I like to be close."

Frankly, I had not thought of this possibility. And indeed, Geraldine would sometimes sit with me when proof-reading, but mostly kept to her own sitting room. Nonetheless, I found the idea of having Amelia nearby, even if we were silent, gave me a feeling of comfort, so I said,

"It will cost us very little to try, and it could be that we will find it to our great satisfaction. Let us do so. The worst that happens is that we will have to set up the back room or another as your personal sitting room."

"In any event, I cannot use the back bedroom until the redecoration is complete," Amelia noted.

"You know, there is a mate to the small chest of drawers that I use with the table as part of my desk. It is in the servant's quarters. Why do you not see what state it is in, and if you think it will be of service, even if we have to re-varnish it, then go shopping for another for the servants. I do know that it needs a lock if you wish to have a drawer that can be secured. Then you can use one side of the table if we both are writing. The light there is very good."

"Or better, Richard, let the servants shop so that they get what they would like."

A very good idea. Within a week, we were sharing the "office", and I must say that I have very much enjoyed the company of my wife while we are both at home there.

As soon as it was warm enough to go without a fire, I also suggested that we install a small stove on the American pattern initiated by Benjamin Franklin. I had been talking about these with my cousins in the ironmongery trade ever since we moved into *Sans Pareil*, and they had recently discovered a firm in south Wales who made a very compact design.

The installation of the stove meant some adjustment to the floor to put in fireproof tiles, and closure of the fireplace so the chimney pipe could join the existing chimney higher up. However, we were able to remove the mantle and set the stove well back once the fireplace was removed. The stove was quite small, but I believe it allows more heat into the room for a smaller quantity of fuel. Moreover, we have taken to leaving a small kettle on or near it, and can have tea at our pleasure. I must confess, we rarely light a fire in the lounge at the rear unless we have company. Our household staff tend to congregate in the kitchen, which gets warmed from the gas stove and from the scullery boiler. So far we have not found how we may heat their bedrooms in the attic, for which the architect made no provision.

* * *

By the beginning of June, Rickett, Betty and Amelia had emptied the back bedroom and managed to store all the contents either in the attic storage or in the work-shed. Amelia asked about precautions in removing the old wallpaper, as I had overlooked informing her that the Scheele's Green was removed when we bought the house. Nevertheless, It made sense to wear gloves and avoid raising dust when we took off the current paper. We then hired a paper-hanger and a painter to prepare the wall, paint the ceiling, and put up a new, pale grey patterned paper. It really did make the room brighter and bigger.

Before we put on the new paper, Amelia had Rickett repair some sections of the floor and re-seal them with varnish. Once the painting and papering was complete, new linoleum was

laid, and then a new carpet. We were going to dispose of the old one when Hilda asked if she might have it to use for her children's room.

"No use having a new one while they are still small," was her prosaic justification.

By the middle of August, both back and side bedrooms were renewed. There remained the master bedroom, but we frankly felt we would wait until after the visit next year of George and Sophy. However, we did decide to do some improvements to the bathroom.

The principal deficiency with the bathroom was that it was often cold. There was, of course, no fireplace, and the decidedly British love of fresh air meant one could become distinctly uncomfortable bathing in winter. Indeed, one of the first matters we attended to was to have Rickett ensure the windows were properly sealed and the ventilation fitted with a proper closure that would stop draughts. We could still easily open it to provide ventilation, but would not now be tormented by frigid breezes when bathing in winter-time.

There was in the bathroom an airing cupboard in the top of which the storage tank for hot water was located. By making a diversion to a serpentine of pipes, we could use hot water to give more heat into the room. I developed some drawings – I was an engineer – so that this heat radiator could be bypassed in warm weather, and located it in the bottom of the airing cupboard with a sloped cover. We replaced the front of the cupboard with a set of louvres and made sure the shelves allowed rising warm air to flow into the room.

The bathroom was a good size, and I realized there was a space between the bath and the airing cupboard of perhaps 4 feet. I had been reading of some ablutions that had been developed by a French Army doctor named Delabost that used a shower of water for bathing. The ideas had been around for centuries and there were apparently even some patents from the 1700s.

I made a drawing of a small cabinet that could fit in the space next to the bath. There would be a small step up over a sill. The shower would drain along the same pipe run as the bath along the floor by the wall to the outside of the house. It was a pity there were not pipes under the floor, but if we were going to try this, I did not wish to reconstruct the floor.

"Amelia, I very much like this idea, but cannot think of a good way to stop the spray and splashes from coming out the front of the cabinet. Any doors will be quite obstructive of the room and awkward to construct."

"Perhaps you could use cloth such as that of which umbrellas are made."

"Brilliant, Amelia." And I gave her a kiss. In fact she and Betty sewed the curtain we made, and put farthings in the bottom hem to keep it from blowing out into the bathroom. They made it just long enough to be below the sill on the inside of the shower cabinet. My cousins in the ironmongery trade managed to find a fitting to spray the water, and also

some nice taps and tiles with which to construct a very attractive accoutrement to our bathroom.

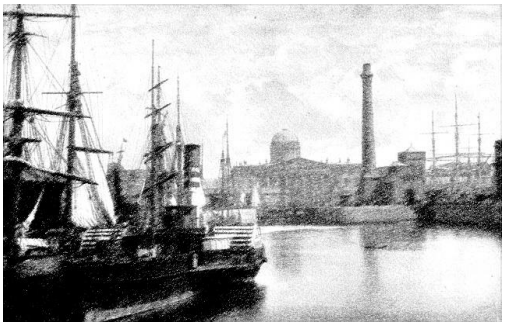
We had a cedar grate made to stand on in the shower to avoid slipping on the tiles. Over the years our main complaint was the requirement to carefully clean the grout between the tiles with bleach to stop mildew from developing.

My joy at my innovation was somewhat diminished, however, when Hilda saw us starting to build the shower cabinet. She said,

“Oh. That’s what Mr. Charles Dickens had built for himself about twenty years ago. He liked it with warm water. Apparently there are people who say the shower should be cold, but I think I’m with Dickens on that.”

The major disadvantage of the shower – if it could be called that – is that our staff enjoyed it so much that their frequency of bathing increased from the traditional once a week, and my fuel bill probably increased by about ten to fifteen percent, though the cost could be due to the heating radiator. Ah, well, a small price for comfort. Also showers seemed to take a lot less time to accomplish than baths.

George and Sophy



The renovations of two bedrooms and the bath, along with the replacement of the scullery boiler with a slightly larger one to provide hot water sufficient for the shower and radiator, were completed by the end of January, 1883. This was well in time for us to receive George and Sophy in early May of that year.

Amelia and I decided to meet them in Liverpool, but as I had never been to the Lake District, I suggested Amelia and I take a two or three days there before going to Liverpool.

“Do you not wish to have George and Sophy accompany us there?” Amelia asked.

“In principle, yes, but I suspect George will have plans to meet people, and we have left it too late to communicate with him to ensure no inconvenience.”

“Indeed, they will already have left Montreal,” Amelia agreed.

We enjoyed our time in the Lake District very much. The scenery was marvellous, but when a few years later we travelled through the Plains and Rocky Mountains in Canada, it struck me how much different in scale it was. Windermere was under six square miles and the largest lake in England. By contrast, Lake Superior is 31,700 square miles, or 5000 times bigger. The human mind has trouble truly comprehending such differences in magnitude. Even Lac Saint Pierre on the St. Lawrence between Quebec and Montreal was 136 square miles, and in Canada we did not give its size a second thought.

George and Sophy had experienced a quite congenial voyage from Halifax – Quebec was open to traffic, but it was still early in the season. Given that they were essentially tourists, they had but two valises and a modest steamer trunk. It would have been awkward to surprise them with a detour to the Lake District. As it was, we were able to entrain and be in Tunbridge Wells by the middle of the evening.

Hilda – though she normally would have gone home – was still at the house to greet us, though particularly George. Sophy was, by this time, looking a little tired. Cook had ready a hearty soup and bread and cheese, with some treacle tart and custard for sweet.

"Ah, c'est comme tarte au sucre, mais beaucoup moins sucré," Sophy exclaimed, forgetting her English.

"*C'est les miettes de pain, et aussi la crème anglaise,*" I replied, unconsciously remembering the vocabulary I had learned two decades earlier.

"Oh, I am forgetting my tongue," Sophy flushed.

"Not to worry. I learned a good deal working with the railwaymen, including Joseph, who I'm sure you've met."

"Oh yes, Oncle Joe. I forget you were there for some years in Montréal." Sophy used the French form of the name of the city.

"Richard, you never cease to surprise me. I did not know you spoke French so well," Amelia joined in.

"And with a good Québec accent, I think," Sophy rejoined.

"May I have another piece of the tart, please?" George had always known how to eat first, talk later.

* * *

Of that visit, I seem to remember best small details like that of the treacle tart. Of course we had a number of occasions where we went places with George and Sophy, but they had quite a list of both tourist and professional destinations. George was determined – and Sophy decided to follow his example – to make contacts with whom he could correspond, so that he could avail himself of up-to-date medical opinions when he got to Manitoba. Thus they were away a good deal. We provided them with a key, and Amelia thoughtfully prepared a small packet of paper, envelopes and stamps for them, so they could make the most of their time, which was to be eight weeks in total. They could come and go, and furthermore let us know by post if their plans changed so that meals or other household arrangements could be adjusted as necessary. That meant they were easy guests.

Soon after they arrived, however, we did have a big family gathering in Tonbridge. George and Sophy went early on a Saturday and walked around the town and visited the ironmongery and other shops and houses, then we all gathered at a church hall Maude had arranged for a dinner together. There were over fifty of us. I think Sophy was a bit overwhelmed, but George reminded her of their wedding some few months previously when her many relatives from different parts of the province of Quebec came, and she laughed and kissed him.

It was good to see my son married to a young woman who was lively and suited him well. She was not an obvious beauty, but had a vivacity that bubbled and sang. I prayed they would find a good life together.

* * *

The morning after the family party, we all went to church and took the family pew. Afterwards we walked on the Commons, the ladies in the lead.

“George, I hope it was not a concern that we went to the Church of England this morning. I am assuming Sophy is a Catholic.”

“Indeed, Father. She is Catholic, and I have agreed that children will be so raised. But for the two of us, there is not a strong religious fervour. We see patients of many persuasions, and it is best to find goodness where it presents itself.”

“That is sensible, and hopefully it will serve you well. There are far too many people willing to try to impose ideas on others, even when those ideas cannot much alter day to day lives. Here in England we have had the Christian Mission become the Salvation Army, which promotes temperance and there have been fights with the opposing Skeleton Army who are afraid that intoxicating beverages will be prohibited. Personally, I do not want my choice of drink to be restricted, but I do not oppose those trying to help persons who have fallen into drunkenness.”

“Well put, Father. I think you are right about the imposition of ideas. However, those ideas can have consequences. There is some considerable opposition in Canada, and I would guess here, about the possibility of controlling childbirth.”

“Yes. I believe you are correct, but I am not well-informed.”

“Father, I am a bit embarrassed to enquire, but Amelia has not conceived, so I wondered if you were taking any measures to avoid children.”

“No. And between you and I there need not be embarrassment, though perhaps the discussion should not include Amelia or Sophy. Amelia and I talked about children. On honeymoon we met a fellow engineer in Holland whose wife had had fifteen confinements, and eleven living children. That prompted a discussion. But we have decided that we will allow nature to take its course, at least until a child is born, though so far she has not conceived, and possibly will not. She had some ...er... misfortune earlier in life. I think we would both welcome a child, but will not be upset if there are none.”

“For Sophy and I, children are important, but we want to establish ourselves to some reasonable level first. Fortunately my medical and her pharmacy training mean we have access to ways to reduce the chance of pregnancy. However, if those measures should fail, we will not be overly upset, and I think that within a year of now we will not have to concern ourselves further.”

* * *

In the middle of July, George and Sophy took passage from Southampton to Montreal via New York. We went with them as far as Victoria Station in London, where they took the boat train. From New York, they could have proceeded to Minneapolis and thence to Winnipeg. However, they had been given many wedding gifts of a household nature, and it made sense to attend to the transport of these items, as Manitoba was still a new enough province that such items were more expensive and in limited selection.

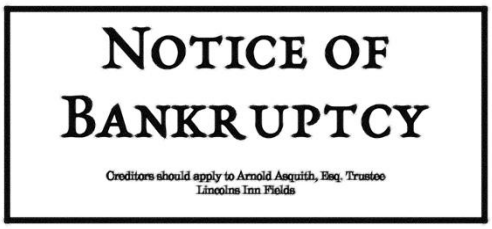
The leave-taking was attended by many tears from the ladies, and both George and I found it difficult to say much. Indeed, while I was not pleased to see the train pull away from the platform, I was somewhat relieved.

To divert Amelia, and perhaps myself, we walked to South Kensington to Harrods. Six floors and over 200 assistants. We browsed the merchandise, and I purchased a fine silk scarf for Amelia. After this, we thought to eat before we went home, as we gave the servants leave for the evening, though Betty would likely be there.

We took the Underground to Charing Cross, then walked to Simpson's in the Strand, where we enjoyed a very fine meal. We both had the roast beef, and enjoyed the ritual where it was carved from a silver trolley in front of us. We managed to consume a whole bottle of claret with our meal. While we both enjoy wine, this was more that our usual amount, and Amelia commented as we walked to Charing Cross "Richard, do make sure to give me a firm arm, as I would not wish to embarrass us by stumbling."

"Amelia, I was about to ask the same," I quipped, and we both laughed. However, a half bottle of claret is not enough to render either of us truly drunk, and we made an uneventful journey home to a house that seemed, sadly, overly quiet.

A plate of revenge


NOTICE OF
BANKRUPTCY

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I had enjoyed, thanks to Lawrence and Judith Stone, the Gilbert and Sullivan operetta *The Pirates of Penzance*, so when in 1885 *The Mikado* was presented at the Savoy Theatre, I arranged to take Amelia to a performance. We decided to indulge ourselves and took a room in the Charing Cross Hotel. The expense was almost eye-watering, but the room was splendid and sufficiently like our honeymoon suite in Brighton that we enjoyed ourselves greatly in the mid-afternoon sunlight that came through the lace outer curtains.

We dined quite early at a nearby restaurant, not favouring the fashion of eating late after the performance. After we entered the theatre and left our outerwear at the cloakroom, we headed towards the auditorium. Suddenly, I felt Amelia stiffen and actually stop walking.

“Amelia. What is the matter?”

“I’m sorry, Richard. I had a moment of panic.”

Following her gaze, I spied a man possibly a few years older than Amelia. I had seen him in one or two meetings related to my work, and knew him to be a banker. Ah ....

Leading Amelia in another direction, I found a seat where I could let her regain her composure.

“The bankers son?” I asked.

“Yes. The same.”

“Are you all right to continue, or shall we leave?”

“I think I must steel myself to such encounters. If he wishes to try to raise what happened, he must incriminate himself.”

“Unless he invents some other story, though that might incite me to violence.”

“No, Richard. That would risk what we have. I would rather leave things alone.”

* * *

The performance was very good, but we were both off-put by the encounter – if it could be called that – with Amelia's tormentor. Throughout the evening, we were both rather quiet. In bed I held her close and told her how much I loved her, and she replied similarly. Then we both lay awake a long time. There was a lot to be said, but we could not say it.

Strangely, within a month, Parks came to me at the house with a package from Edward Ramsay, an engineer I knew only by passing acquaintance. It contained a request to review the calculations in a proposal for an internal combustion engine. I had read some of Edward Butler's work on the subject and it interested me greatly, though the Red Flag Act meant England was a poor location for the commercialization of the use of such engines for road vehicles.

"Do you wish me to start reviewing the contents of the package, Mr. Carr?" Parks asked.

I was about to agree to this, when I noticed that the second sheet of the package was the letter to Ramsay asking for an assessment of the costs and likely success of the venture on the letterhead of an investment bank. The signature was that of the man who had violated my wife.

"Let me consider if we wish to undertake this assignment," I said.

Parks left to carry on with a number of ongoing tasks we had in hand. I should likewise have put my current obligations before this new one, but my curiosity and other emotions were at high pitch. I flipped through the package, looking at the proposal and its drawings and specifications.

After some twenty or thirty minutes, I was reading a particular page about the mechanism for transmitting the forces of the exploding gases to the crankshaft when my mind sensed an error. It took me about twenty more minutes to figure out that the writer of the proposal had moved a decimal in calculating a transverse force. The engine design looked all right, but in operation there were sideways thrusts that would likely quickly wear out the connections of the pistons to the crankshaft.

The error was subtle. I wondered if others would sense it as I did. For the moment I set the package aside carefully and moved on to assignments that were going to bring revenue to the consultancy. However, that evening in bed, with Amelia in my arms, I broached to her an idea I had.

"My dear, something arrived today that has presented me a dilemma."

"What is that, Richard?"

I explained the proposal, and the error I had noticed, but not the source of the potential commission.

“Surely, Richard, you must report this to Mr. Ramsay?”

“There is one other fact I have withheld, Amelia. Mr. Ramsay is working for ...” Here I will not name the man who caused my beloved wife such pain and misery. Henceforth I will call him X. “I am loath to provide information from which such a man may profit.”

“Is there much danger other men or women might be hurt by the engine if it is built as designed?” Amelia asked. This was a very pertinent question. It struck to the heart of the moral issue for any designer or builder of devices for human use.

“Certainly if the connections fail while the engine is at full power, there could be metal flying about, though I think it more likely that it would simply seize up and stop with an expensive set of wreckage. Of course, a failure when the engine were needed, as in driving a boat in a current, would also put people in danger. However, I think it most likely that the connection will start to rattle and bang and the wear will be costly in pounds rather than flesh. It could be a nasty loss for the investors.”

“While the fully honourable path would be to report your concerns, perhaps you could simply refuse the commission on some excuse.”

“Yes. Even that gives me some dissatisfaction. Though I really do not want to give X any measure of gain from my expertise.”

“You are a good man, Richard. But you are human. I think to do anything to help him would grate on your soul.”

“Yes. It would. I think I will, however, take a middle course. I will ask Parks to spend an hour and no more looking at the parcel of documents, telling him I have misgivings about it. If he finds the error, then we will report it to Ramsay and send him an invoice for our work, which will include every minute of my time and Parks time and even this half hour of conversation. If Parks does not uncover what I saw, then we will refuse the commission on the grounds that we are too busy with other work.”

* * *

The next day I walked down to the High Street and gave the package back to Parks. I told him I had business in town, and indeed was going to the bank to get some money and order some more cheques, and would return to discuss what we should do with the commission. When I came back, he had done his perusal.

“I didn’t see anything obviously wrong, Mr. Carr. It is an interesting project, but we have not previously worked with internal combustion engines. And we do have quite a lot of work in hand.”

“Indeed, that is the case. I would rather not say that we are reluctant to work on the internal combustion engine, as I predict it will become a very important part of modern

engineering in a few years. However, our order book is quite occupied. Can you return the package to Mr. Ramsay with a note that with great reluctance we are unable to render a timely response at present but look forward to giving satisfaction in the future?"

"Certainly Mr. Carr. Would you wish that I ensure it catches tonight's post?"

"Yes. Mr. Parks. Attend to it immediately. We should always to be prompt and business-like, even if we are not taking the job."

* * *

About a year later, I was reading a London newspaper when I came across a small item.

Germin's Engine Bankruptcy

The high hopes for a lightweight but powerful internal combustion engine for fast motor boats have been diminished by the bankruptcy of Germin's. A number of engines were supplied to different builders, and each has suffered from some form of wear that shortens the working life to a few hours service. Germin's Executive Director, Mr. (X), has been forced to resign from his position at the bank his father has directed for some years, and there are rumours that his creditors report large debts relating to his household.

I clipped this item and left it at Amelia's place at dinner.

"Richard. I should not be pleased at the misfortune of another, but I cannot help it. His ruin is so well-deserved in my own case. I can only hope that should he have a wife and children, they will not suffer because of this."

"Yes. I would not like that either. However, I am fairly certain the grandfather is still in funds and will ensure they are not in the workhouse."

Sometime later when I was in a meeting with clients, I overheard a conversation about Mr. X. It appeared that he had run up debts in several places, having maintained apartments for no less than two ladies – no, I should use "women" – other than his wife. In eavesdropping, I learned X had been sent to Australia to some minor post of his father's bank, while his wife and children took up residence with her parents, the house and contents being sold at auction.

Brighton – another recollection

I woke from dreaming of this retribution to a call of “York”. Amelia had rolled away from me, which made it easier to spoon in behind her. I remembered the first time we had done that after returning from our fish and chips. Amelia was concerned it might be unwise to enjoy ourselves excessively. However, I said as long as we were both comfortable, were careful to avoid injury, and my stamina was sufficient, I could think of no objections. Later Amelia offered the reason for her concern, but for the moment we discovered we could enjoy a union without an extremity of excitement. In fact we were rather chatterboxes even during our congress. Eventually we each experienced a rather mild climax and we ended up with my spooning in behind her, neither of us bothering with nightclothes.

The next morning – Sunday – we decided to walk after breakfast along the front towards Hove. While during the night and morning we enjoyed each other’s proximity, Amelia had asked if we might ration our unions to reduce the possibility of difficult urination, which she had learned during her nursing training could arise from excessive congress. We agreed to enjoy the day and indulge ourselves in the afternoon.

We took our time. It was chilly and windy, but we enjoyed watching the sea. After tea and a bun in a small cafe, we took a tram back to the Royal Pavillion of which the garden and some parts were open for visits. We were, however, getting tired and returned to our room in the early afternoon, where the warmth was most welcome.

“Would you like to rest, or perhaps enjoy ourselves together?” I asked.

“Indeed, both at once I fear. However, may I bathe? The availability of such a well-appointed bathroom is too good to overlook.”

“A capital idea. Do you wish to go first?”

“Is it possible we might both fit in the tub?” Amelia asked.

She did not have to ask twice. We were rather quicker undressing than the previous night, which we did while filling the tub.

“Do you think we should sit with both facing the taps, or shall I sit at that end?” I asked.

“My curiosity is still strong, but I will have more comfort if I can sit in front of you and rest against you.” Amelia said.

“I noticed this morning that you seemed to hold and touch my privates quite considerably.”

“And did you not caress my breasts and ... er ... vulva is the word we were taught?”

“Oh. Is that the technical word?”

“What words do you use yourself, Richard?”

“I have had very little occasion for any word. I suppose quim. Perhaps cunt. They are unfortunately used pejoratively, particularly the latter.”

“Perhaps we should use quim. I believe even Chaucer used quaint, which is somewhere between the two words. And for you? What should I use? Penis and testicles seem too medical.”

“Cock, balls. That is how I think of my parts.”

“Then that is what I will use privately with you. Now we had better get in before the water cools. You first, and I will sit in front of you.”

When she was seated, I washed her back, then soaped her front, which gave rise to giggles, but clearly of pleasure. After I rinsed her with the flannel, she lay her head back on my shoulder and said “I love you Richard.”

“And I you, Amelia.”

We were silent for a few minutes, almost dozing in the wonderful warm water. Then Amelia asked

“Richard. Do you think I have too much hair on my ... quim?”

“I have no real idea. To my recollection, Geraldine had rather less. Why do you ask?”

“In my nursing work, particularly as a midwife, I have had occasion to see several women’s parts. I know I have more hair than any other I have encountered. On one occasion, there was the wife of a Turkish diplomat who gave birth when I was attending as a student. She was completely bare. I was told later it is something to do with a sort of commandment in the Koran.”

“If it concerns you, I am sure some scissors will allow it to be reduced. I would not know about using a razor. Clearly I don’t use one myself, but I have scissors for my beard.”

“I would have difficulty with the operation – some parts are out of my line of vision.”

“You wish me to do the honours of ... well, a quim trim?”

Amelia laughed. “The precise expression we shall use. And yes. Last night I felt a few tugs during our union.”

“Then let us get out of the bath and I will do it, but we will leave the water so you can rinse off any loose hairs.”

With some giggling and laughter, we positioned Amelia on the bed in a good light from the window and I prepared to carefully cut away at the curls.

“How closely should I cut?” I asked.

“As long as you do not touch flesh, then as close as you wish. I think I would like to use a mirror to see what it is that you see when you look at me there. As I said, I have seen several women and though there were some similarities, each was different. My curiosity is whetted.”

Very carefully, for I was conscious I would lose an opportunity for pleasure if I nicked her sensitive places, I cut away the dark hair from her mound and her cleft, even down towards the other hole. As I did so, the anatomy of her quim became more clear, with outer and inner lips, and a small button in a hood at the front. The gate of my pleasure below was closed by the inner lips that protruded a bit from the outer ones. As I moved these from side to side to reach the hair that grew in the valleys, I noticed a lot of moisture oozing from her hole. Amelia was enjoying my barbering. I found myself intensely excited and fortunately had a handkerchief at hand to avoid a drip on the carpet.

“I think you may now rinse off.” I said finally.

She got up and I accompanied her to the tub so she would not fall. After quickly rinsing, we un-stoppered the bath and she got out and re-dried herself. She gathered a small mirror from her washbag, and we returned to the bed.

I positioned the mirror and asked, “Can you see yourself now?”

“Oh. Yes. You have left but a shadow of hair. Oh. I fear I must be blushing, since I have never felt more naked.”

“I can see the form of your quim much better like this.”

“Richard. Can you touch me where you touched me last night, please? I want to know what gives me such pleasure.”

I took my finger and gently touched her button at the front of the quim. She again made the sighing groan. “Oh yes. That is it.”

“Would you like me to do it some more?” I asked.

“Yes please. But first point out to me where it is.”

As she held the mirror, I pointed to the button and touched it gently.

“Oh yes. That is it. I believe it is called the clitoris. I would not have believed it so sensitive. We were always given strict lectures not to touch ourselves. I am not sure why, but it was hinted that to do so was some form of self-abuse that could lead to insanity.”

“There are similar remonstrances to boys not to touch themselves. I wonder if they have any real scientific background. What does seem clear to me, though, is that I suspect your ... er ... clitoris ... is even more sensitive than the head of my cock. Now put down the mirror and close your eyes and tell me whether to go up, down, to your left or right as I touch you.”

“My eyes are closed.”

I was about to touch her sensitive spot, when on a whim I leaned in and kissed her quim, grazing my tongue over what I now had a name for. This evoked a loud groan.

“Sorry. Is that hurtful.”

“Oh. You used your tongue. It is marvellous.”

I decided discussion was superfluous and used my tongue gently but firmly all around her quim, which had a very pleasant taste, especially the liquid oozing copiously from her hole, into which I even pushed my tongue a little before returning to minister on her button. I found I could vary the sensations – Amelia was not bothering to give any direction – by putting my thumb and forefinger either side of what I could feel as the shaft of the button in the small hood. Amelia became more and more agitated, but I surmised not in a way that was distressing to her, when I gently pulled back the hood and quite vigorously circled the exposed button with my tongue. At this, she bucked her hips and moved as if to get away. For some reason the devil made me hold her tight and continue my attentions with my tongue. She let forth two or three huge sighs and oozed a lot more liquid then lay back panting. I sensed that was the time to stop.

“Oh my! That was quite ... unprecedented.” Amelia gasped.

“Somehow I am not sure ’unprecedented’ is the right adjective.”

“You are right. But at the moment my brain is not capable of another. However, I must thank you for such an extremely pleasurable activity.”

I came up onto the bed beside her and we arranged ourselves side by side and I kissed her.

“I feel that I have been quite unfair in having all the pleasure.” Amelia said.

“It was very exciting to give that to you. There is even a drip on the carpet, I’m afraid.”

Amelia looked down at my cock. “Yes. You are wet also. Perhaps I may take a closer look.”

“Of course. But I will tell you I am not far from ejaculation.”

“Does it matter to you if you spend like that? We know that some short time later we can have another opportunity.”

“True. I just don’t want to do anything upsetting to you.”

“Richard. What is sauce for the goose is sauce for the gander. May I trim your hair a little? I want to see your parts too.”

“Of course, if you wish, under the same rules of avoiding the flesh.”

She went and got the scissors. The waste-basket was still at hand. I lay back on the bed and she pushed my legs apart and knelt between them. There was some snipping and she moved my balls from side to side to get at some hairs. Then she said, “Can you rinse off, please?”

I went and rinsed at the sink, dried and came back. She indicated I should lie down. There was a pillow for my head.

“Richard. Where is the foreskin?”

“It is bunched up behind the ridge of the head. If you are gentle, it can probably be slid forward.”

Amelia took hold of my cock in one hand and with her thumb and teased the foreskin forward.

“Does it feel better with the head covered or not?” she asked.

“I think it is more sensitive uncovered. I’ve never thought about it.”

For a while she played with my balls, feeling their shape and texture I believe. Then she bent forward, and before I could say anything, she kissed the tip of my cock. Then again, then with her lips slightly parted, and again with parted lips and tongue moving over the sensitive helmet.

“Careful, unless you want a mouthful,” I said.

She changed her attention to the shaft, running her lips along its length. I had noticed that she carefully snipped the hairs there. What a remarkable woman. As she ran her mouth

along me, her hand had the head grasped gently between thumb and two fingers that were gently spreading my liquid. I was now so close to ejaculation that I involuntarily lifted my pelvis to get a stronger sensation. But before I could do more, she took me in her mouth entirely and swirled her tongue all over me as she sucked. I lost control and my cock pulsed and pulsed into her mouth. She opened her mouth slightly as my paroxysm concluded and let the semen fall on my stomach.

“Now it is my turn to thank you.” I said.

Personal Partnerships

That memory was, in the small space of the single berth, ... somewhat awkward. And I did not want to wake Amelia to profit from the feelings the recollection raised. The time in Brighton had served very well to set a tone for us to build our life together. Neither of us had had any illusion that the construction of that life would be without effort, but our rather early mutual enjoyment provided what, in a steam engine, would be the function of the safety valve, in our marriage regulating the pressure of anxieties and daily annoyances.

Nevertheless, our lives up to the end of the visit by George and Sophy had been rather busy. I was occupied a good deal with the consultancy, Amelia with some nursing assignments, and both of us with the renovations. If you are busy and happy, as I believe we were, one does not give much thought to the deeper matters.

My memories of the rest of the years of the decade are pleasant ones, but as the train to Edinburgh rattled on, I could not generally place them in calendar order.

* * *

One event I can place is the marriage of Mabel Knowles to Michael Buckley on December 28, 1883. Mr. Buckley had been a captain of a merchant ship on which Mabel's first husband had been first mate. That was before Edward Knowles was made captain of the ill-fated *Northfleet*.

Not long after Amelia and I were married, Mr. Buckley had decided that he had sufficient fortune to retire from the sea. He was, I suppose, into his fifties at that point, so only a couple of years older than myself, but had done well and saved his money. It was sometime in November of 1883 that Mabel wrote to say she was thinking of coming to Tunbridge Wells with a friend. She had been a frequent visitor, and Amelia, sometimes with my accompaniment, would often go to East Grinstead for an afternoon or evening.

We suggested a luncheon on a Sunday after church, and invited Mabel and her friend – who we anticipated would be female – to join us at the church and then walk back with us. Our curiosity about Mr. Buckley – as he was introduced to us, though I would have been tempted to give him his title of Captain – had to wait to be satisfied until the service was over, when we walked back to *Sans Pareil*, the ladies in the lead.

"From the brief introduction before the service, I gather you are a seaman, Mr. Buckley," I ventured.

"Aye, but I have just finished my last voyage as captain. I have made and saved a modest fortune, and I would like to live a little in my native land."

"Have you been much abroad?"

"Indeed, I have hardly spent one year of the last 25 in Britain, but have been all over the Orient. I was captain of several opium ships. It is a very profitable trade, but a risky one. I was lucky, but also careful, and I got some healthy gratuities from the ship-owners."

"Yes, it seems to be a trade that does not bring a lot of credit to the British Empire. I hope I don't offend by saying that."

"Not at all. I'm glad to be out of it. I rather fell into the trade before I understood what it was about, then found it difficult to leave until I had sufficient resources that I would not need to find another post. As it is, I've several offers even now, but I intend to stay mostly on shore, though it is possible I will take some temporary employ with sightseeing boats or ferries on the south coast here."

"Then you plan to stay in the area?" I asked.

At this Buckley spoke loudly, "Mabel, Dear, Mr. Carr wants to know if I plan to stay in the area."

Mabel flustered, "Oh. We were going to tell you over luncheon, but Mr. Buckley and I plan to marry at Christmas-time, and I was going to ask Amelia to stand up for me."

We were in the midst of crossing a road, and the general congratulations interrupted this until we saw a carriage coming and had to rush out of the way. We were almost home, so we came in and I found sherry and glasses to propose a toast, then thought to ask "Mr. Buckley, Will you take sherry, or do you prefer some other drink."

“Sherry will be fine. We got rum at sea, of course, though that really is a Navy thing that other seamen have copied. Personally, I do not imbibe much. The captain has to have a clear head at all times, and many sailors are drunkards.”

“How did you come to know Mabel?” Amelia asked.

“Well, in 1873 – actually towards the end of the year – I saw a very old copy of the Times and read about the *Northfleet*. Somehow it stuck in my mind, and when I met an old shipmate who also knew Edward, I asked him about the incident. The Times mentioned Mabel, but didn’t say much. My shipmate remembered that Mabel had a house in East Grinstead, and I went there more or less on a whim. It was a reason to go somewhere and start to figure out where I would like to live, even if my curiosity were to remain unsatisfied. I’ve only very distant family in England, as I was the sole child of parents who died when I was but a lad, in fact just old enough to go to sea.”

“Did you have much difficulty in finding her?”

“No! We laugh about it, and think it must be divine providence. For I came out of the station one Tuesday morning a couple of months ago, and I go up to this policeman who was outside. I ask him how I might find a Mrs. Mabel Knowles, and this lady walking behind him says ’I’m Mabel Knowles. What can I do for you?’ ”

We all laughed, and Mabel said, “It turned out we got along famously, and I had a spare room to rent. About a week ago, we realized we might better get married and save ourselves being the object of scurrilous talk. When we went to the vicar to arrange the banns, his eyebrows went right up to the ceiling when we both gave the same address. But he seems to be all right now, and we are looking forward to a nice ceremony.”

* * *

Another conversation that sticks in my memory is the visit of Jeremiah Carr and his son Augustus. With such a name, he is always just Gus to the family and now to most others. It must have been in 1888, I think September, and Parks and I were working at the office on the High Street. Mrs. Komarova was there too, and we were planning a series of calculations on a set of tunnels for a railway client.

There was a knock on the door, and Parks went down to see who was there and came back up with Jeremiah and Gus.

“Hello Jeremiah, Gus. Do you know Mrs. Komarova who does some figures for us?”

There was a general murmur of introduction, and Parks said “I’ve put on the kettle. We were just going to have a cup.”

Jeremiah said “That’d be nice. The horse has been pulling a good load over to Broadwater Down with some bathroom fixtures for a big new house, so she’ll be happy with her nosebag for a while, though perhaps Gus can get some water for her.”

This was certainly possible, and Gus went down for the bucket and the came back and filled it. While the horse was watered, talk was of family, local events and the weather. When Gus came back, he said, “I put Dolly’s nosebag back on. She still had about half the oats.”

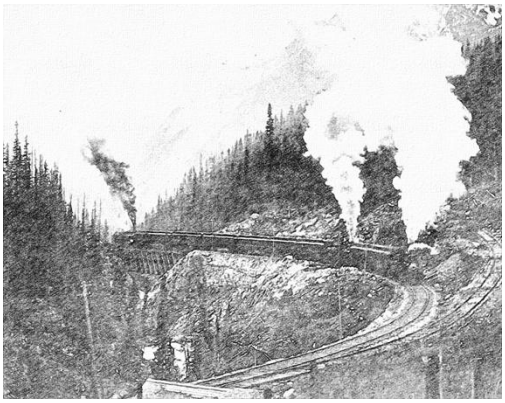
“Probably needed some water first.” Jeremiah observed.

“How are you doing Gus?” I asked.

“That’s what we came to talk to you about,” Jeremiah said. “Gus wonders if he should look into a career in engineering, and I said you would be the man to ask.”

This opening led to a suggestion that Gus spend a few days helping out with some calculations to see how he liked that kind of work, and then we could, as appropriate, seek wider advice. However, he turned out to be adept and happy in the figures, and by the beginning of October, we took him on as apprentice.

A Grand Tour in America



A change in tone of the wheels as we crossed a bridge reminded me of crossing the big trestle bridges in Canada and the United States. We had gone there in 1891 on a grand tour, as it was time to see my grandchildren. There was Ernest, born April 28, 1885, in the midst of the North West Rebellion of Louis Riel and the métis.

Julia (despite the month of her birth), was born on on June 10, 1887, and Amélie – named after Amelia – on March 4, 1889. The unrest of the Rebellion put off early thoughts of the trip, but the serious plan began to emerge soon after Amélie was born, and the project got more elaborate the more we thought about it.

The final itinerary took us from Liverpool to Halifax, then via the Intercolonial Railway to Quebec City, thence to Montreal on the Grand Trunk, up to Ottawa, down the Rideau Canal to Kingston, thence by rail to Toronto. From Toronto we went north and round the top of Lake Superior to Port Arthur, thence to Winnipeg, where we spent several weeks to get to know the children and catch up with George and Sophy.

After that we entrained for Calgary, which had yet to become a city, thence through the mountains where Joseph Lefebvre had arranged for us to ride in one of the locomotives down the Big Hill to Field, British Columbia. The nature of the right-of-way there and how trains must be managed on the extreme gradient is, to my mind, untenable in the long term. There have been a number of accidents, even with severe speed limits, safety spurs, and extra locomotives, and so on. Joseph said that there were some suggestions of spiral or corkscrew tunnels, but that there was much discussion and argument among the different engineers and managers.

We stopped a couple of nights in Vancouver with its fantastic harbour nestled in mountains, then visited Victoria, named after our Queen and somehow trying to be so

British that it sometimes seemed like one was walking across the stage of a D'Oyly Carte production of one of Gilbert and Sullivan's operettas.

Our return journey – for we felt Victoria marked the farthest point from our home – took us by steamer to San Francisco, then by the Central Pacific and Union Pacific to Salt Lake City, where the Mormons had recently completed their tabernacle, thence to Omaha, and Chicago.

From Chicago we went to Detroit, then across to Windsor, from which we could return to Montreal, where we embarked for home.

The memory of this journey was sufficient to tire me, and for a while I think I slept without dreams.

* * *

I returned to consciousness as we stopped in Berwick upon Tweed and I heard a child's voice complaining that they just wanted to sleep as a parent or nanny bundled them off the train. On our tour, the voices of my grandchildren were a strange source of emotion for me. Of course the littlest was barely talking, but the others were at once curious but shy until they got to know us. Amelia was at a loss as to how she should be addressed. At thirty-six, she felt too young to be called Grand-mère, and she was not an aunt, but Amelia was too familiar and too similar to Amélie. Sophy suggested Mémé, though she warned it could be taken to mean "old lady". Somehow that was what we used, no matter that it might be inappropriate.

In the early summer on the Manitoba prairie, I found myself conscious of how far my family threads had unrolled. My grandchildren spoke a curious mix of English and French. I feared somewhat for their future should the bluster and flag waving of imperialist fervour lead to prejudice against them solely because they spoke French as well as English. Just the year before, the government of Thomas Greenway had passed the Schools Act to set up non-sectarian public schools. That, I felt, was a progressive measure. However, he also passed an act abolishing French as an official language, which seemed to me unnecessarily partisan, even as the proportion of both Catholics and French-speakers in Manitoba declined with the influx of new settlers.

George and I had a number of discussions about this, and largely were in agreement. Our concerns were – as has been proven by subsequent events, though the situation is still unresolved as Amelia and I slumber northwards – that situations such as these could become a source of strife and potential violence.

* * *

We returned to England in late October. Parks had, with some advice from Kirkaldy by correspondence, and together with our apprentice Gus and our occasional helpers, kept our regular clients satisfied. We had arranged that he could pass more complex questions to a

couple of engineers with whom we had a good working relationship. However, Parks' knowledge was by now the equal to any in our subject specialities, and we got no requests that were unusual. While I suspect I could have kept one assignment from a client who asked particularly for me while I was away, I cannot say that the cost would have been worth missing seeing George and Sophy and having such a marvellous tour with Amelia.

Bicycles

My dreams or thoughts somehow moved to the summer three years after our grand tour of Canada and the United States. Amelia and I were on bicycles. We were certainly not the first to get them in Tunbridge Wells, but Amelia was probably among the first half-dozen women of the town to ride. We had some particular advantage, as Henry Jacobs, who was the son of a cousin whose husband joined my uncle's part of the ironmongery, had become an enthusiast. While still before his majority, his father allowed him a portion of the back of the shop to stock, build and repair cycles. I suspect it was at a family gathering that we talked to him, then became ourselves interested. In early 1894, when we first had the bicycles, we still had solid tyres, though I do believe we had changed them to the new pneumatic ones by the time I am recalling. They certainly made the ride much more comfortable.

This Sunday morning in the summer it was so pleasant that we – rather sinfully perhaps – decided that we would eschew church and take a tour on our bicycles. After a quite good breakfast of scrambled eggs on toast, we readied ourselves in lightweight clothing. Amelia had acquired a split skirt, rather like loose trousers that were short enough not to foul the wheels or pedals. Henry had provided some spring steel clips for my trousers. A capital idea. They would save my pant-legs from dirt on the bicycle frame, pedals and chain-guard.

We left home sometime after half-past ten with a bottle of lemonade and some biscuits in my small rucksack. The first part of the journey was a bit uphill as we headed east along Grove Hill Road and made for Hawkenbury. From there we went along the Hawkenbury Road and Ivy Lane to Bayham Road, and thence to the ruins of Bayham Abbey, where we stopped to enjoy the view of these in their rural surroundings. We sipped lemonade and had a biscuit.

"Richard. This is so very pleasant. It would be possible to walk, but the bicycle is so much more efficient of time and effort. I will be able to visit friends much further from home

without recourse to a hansom or an omnibus. The only annoyance is hills, and of course inclement weather."

"Yes. I think the bicycle will give women a great deal of freedom of movement denied to them before. And the price is such that many people will find them affordable."

"There have been some complaints that this will loosen moral behaviour. I hope that doesn't become a force that inhibits women from being able to enjoy a liberty of travel around their town or countryside."

"There are always conservative voices, sadly often men prescribing the behaviour of women. In my opinion, the ability of women to travel modest distances more easily will enable them to take on better employment opportunities. Look at our own consultancy. We have had Komarova performing calculations for us, and they have been most satisfactory. However, she finds that getting to and from the office is a challenge for her, since she lives over by High Brooms. I shall ask her if she might find a bicycle helpful, in which case we could likely afford to subsidize the purchase for her."

For some reason I realized I had fallen into the way Mrs. Komarova talked of herself, without the "Mrs". In any event, our conversation paused for a while and we were content to sit in each other's company in the mild breeze. After about a quarter of an hour, I got up and offered Amelia a hand to rise. We cycled back along the Bayham Road to Bells Yew Green where Frant Station was located. Strange, this was almost as far from Frant as Frant was from Tunbridge Wells, at least the outskirts thereof. I waved indicating that we should go down Bells Yew Green Road to Frant, and Amelia followed. It was about a mile to the village.

As it was starting to get closer to one o'clock, I rode through to the Abergavenny Arms.

"I wondered where you were going," Amelia said, a little out of breath.

"My stomach seems to be saying it might be pleasant to have some lunch and a glass of ale or cider."

"I will not dispute with you. I believe my stomach may be singing a harmony."

Laughing, we went into the public house after I locked our bicycles to a railing using a chain and padlock I carry in a bag attached to the back of my saddle. Henry has started to make up such chain and lock combinations so cyclists can leave their vehicles somewhat securely. He is honest enough to warn that a serious thief could quite quickly cut the modest chain he supplies, but the chain and lock will discourage a street lad from riding off. A heavy chain would be too awkward to carry along.

Inside the old building, we were welcomed by a man I presumed was the landlord.

"Good day sir, madam. What may I offer you?"

“Well, we have been riding our bicycles to build up a thirst. I think a pint of cider, if you have it,” I responded.

“Indeed, we have a cider made locally by one of Lord Abergavenny’s tenant farmers. And for madam?”

“A half pint of the cider, I think. And can you tell us what fare you might have for a light lunch?”

“There is always a good ploughman’s lunch here. Bread and cheese and pickles, and today some fresh cucumber for a bit of colour. Then there are some scotch eggs my wife made yesterday, and I’ve a ham that we can make sandwiches from.”

“Amelia, would you like to share a ham sandwich and a couple of scotch eggs?”

“Perhaps by preference share the ploughman’s and the ham sandwich,” she replied.

“That will be fine. A ham sandwich and a ploughman’s lunch please.”

“Right you are, sir. Here are your ciders.”

He set our cider on the bar and tallied up our bill. I paid him for the drink and the food, which he went off to order in the back. We sat at a small table not far away. After the landlord returned and dealt with another customer wanting his glass refilled, he moved to the point of the bar nearest us and asked “Surely it cannot be easy to ride those two-wheeled contraptions. I wouldn’t have the balance for it.”

“Actually,” I said, “I find it easier to ride than a tricycle, except when trying to go very slowly. The wheels turning and the position of the front wheel mounting allows for what are called gyroscopic forces to make balancing easy. But I will allow that this is not obvious at first sight.”

“My wife has been asking if she might try one sometime. She finds it a long walk into the Wells, but the choice of victuals is better there.”

“Indeed, a bicycle would make her errands easier.” Amelia said. “I will write down my name and address, and she may come and see my bicycle when she comes to town. Also the clothing I wear to make cycling easier.”

“I’m much obliged to you ma’am.”

Amelia had pockets in her split skirt to avoid having to carry a reticule. I was surprised to see her take out a small notebook and a pencil stub and provide the information she offered.

“Are you the proprietor of this house?” I asked the man.

“Well, sir, I’m the landlord for the license, but I’m a tenant of Lord Abergavenny. A previous Lord A bought the property in 1823 and renamed it after himself. Before that, from some time before Shakespeare, it was *The Bull*, and before that a name like *The Apsis*, but spelling weren’t so set back then. It’s thought the building was first put up around 1450, so we’ve quite a history.”

“Indeed, it must be one of England’s older places of refreshment. And no doubt has its tales.”

“Yes. For a time they used the building as well for a courthouse, and there are jail cells in the cellar, though not used now for the best part of this century. And sometime in the 18th century, a guest died in the night of a fever. The law at the time said the house must be closed until the ruling of an inquest if there were a death therein. So the landlord threw the body out the window and claimed a suicide outside the doors so his business could continue. However, there are still those who claim the dead man haunts the place, though I’ve not seen or heard him.”

At this point a group of men came into the room, and the landlord had to attend to their wishes. We chatted about the history of the inn as we ate. Eventually we finished our food and drink, and Amelia got up to find the water closet. I followed, knowing that the pint of cider would make the homeward journey uncomfortable otherwise.

We came out into the sunshine, and I said “Let us leave the bicycles and look at the churchyard. Did you know the church was a major reference point for the Anglo-French survey of 1784 to 1790 to work out the precise relative locations of the Paris Observatory and the Greenwich one. But I’ve no idea where the benchmark or benchmarks would be.”

“Perhaps we can find them for you.” Amelia quipped, and off we strode to the churchyard.

We did not find any marker that we could be sure was used for the Survey, though there were several iron posts or stakes in different stones or parts of the church wall. We wandered into the graveyard that was more or less behind the church, and spent some time reading the inscriptions. Suddenly, Amelia said, “Richard. This will interest you. Here, I’ll read it, though it is a bit moss covered.”

"Sacred to the memory of Lieutenant Colonel John By, Royal Engineers, of Shernfold Park in this parish. Zealous and distinguished in his profession, tender and affectionate as a husband and a father, and lamented by the poor, he resigned his soul to his Maker, in a full reliance on the merits of his blessed Redeemer, on 1st February 1836, aged 53 years, after a long and painful illness, brought on by his indefatigable zeal and devotion in the service of his King and Country, in Upper Canada."

“Why, that is interesting. We saw his canal last year. A great piece of engineering. And I knew he’d been made a scapegoat for the overspending. The political opposition wanted blood, and they chose to crucify a man who was not well-enough connected to retaliate.”

“And it looks like there is no family to maintain his grave. That is very sad.” Amelia commented.

This rather let the air out of our balloon, and we returned to the bicycles and then rode back to Tunbridge Wells via the Frant Road, which descended to a junction with the London Road at the Pantiles. We had then to ride a little uphill along the High Street and even partly push our bicycles up Grove Hill Road to home.

I was quite satisfied by the exertion and said to Amelia “Cycling will give us exercise if nothing else. I am quite hot and perspiring.”

“Then a bath is in order.” Amelia responded.

“I’m afraid I do not concur with those who favour the spartan merits of a cold bath,” I said.

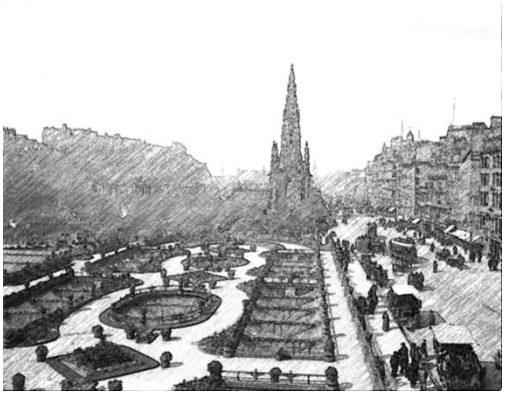
“You may have a hot, or at least a warm bath. I had Betty put on a small fire in the scullery stove so we would have hot water when we got home.”

“What excellent planning, my dear. Do you wish to bathe first?”

“First, second or both together. Of course, if you do not wish to profit from the fact that our staff is away this afternoon and we have the house to ourselves....” Amelia replied.

How could I ignore such an opportunity? I sent her upstairs to undress and get into the bathtub while I made sure the stove was banked up a little and the damper was opened to liven the fire somewhat. We had a very pleasant interlude in the bathtub and the bedroom, then both fell asleep, waking only when we heard one of the maids or cook come in at a time approaching seven o’clock.

Waverly Station



In that strange way sleep and dreams have of merging into reality, I was dreaming of our sleeping after our cycle to Frant when I was brought to consciousness by a gentle knock on the compartment door.

“Thirty minutes Sir. Madam. Thirty minutes.”

“We are awake,” I struggled to answer, rather making an assumption about Amelia’s state of consciousness.

Amelia was, it turned out, half awake. “What time is it?” she mumbled.

I awkwardly rolled out of the bunk and turned up the light, then found my pocket watch in my waistcoat that was on a hanger. Squinting – I did not yet have my spectacles on – I said “Around four o’ clock.”

There was a wash basin in the compartment, and we rinsed our faces, which helped to wake us. Then we dressed, which took about 20 minutes given the motion of the train. Fortunately, we had not unpacked except for some night clothes that I had put at the top of my valise. We had said very little, but once dressed I gave my wife a small kiss on the cheek. She gave a weak smile, as I don’t think she was properly awake.

The train was now slowing. Amelia sat on the edge of the bunk while I opened the compartment door, noting the coolness of the air that came in. The steward came along the corridor and asked if he might take our bags to the doorway, to which I agreed.

Within five minutes, we were on the platform, trying to gather our wits in the morning darkness. There were lights, but the overall station was, at this time of morning, gloomy. A porter was at hand, and I had him take us and our luggage to a hansom cab.

I gave the driver the name of the hotel, and he secured our valises and helped us into our seats before climbing up to his perch at the back and urging the horse forward. The journey was not long, but for the horse a lot was uphill, since Waverley station is in a quite deep valley. Nevertheless we were at the hotel not long after a quarter-past four. I was somewhat concerned that the doors would be shut and locked. Indeed, that was the case, but whoever was arranging the meeting had done their job and there was a clerk watching for the arrival of guests, and he let us in.

“Good evening, I mean good morning, Sir. Madam. May I have your names please?”

“Mr. and Mrs. Richard Carr,” I answered.

Looking at a list clipped to a board, he said “Ah yes, here you are. And the first to arrive from London. There are two other couples expected.”

As he said this, two cabs were arriving. The first had the engineer I had seen on the train and his younger lady companion. The other was an engineer I had met before also, but I had not noticed him on the train. He had a more mature lady with him, but I knew that she also was not his wife. The railways were contributing to moral decay, it seemed.

The clerk was, however, efficient. “Mr. and Mrs. Carr, here is your key. Your room is one floor up. If you wish I will call the porter, but he is allowed to sleep but be on call, so he will be a few minutes.”

“Please don’t bother, we can handle our valises,” I said, wanting rather to get out of the way, since the vestibule of this hotel was quite small.

“Then I will bid you goodnight. Breakfast is normally until 9 o’ clock, but the organizers of your meeting have arranged that the guests may still order breakfast until half-past ten tomorrow.”

“Perhaps we might be wakened around ten o’clock if we have not descended by then,” I asked.

Making a note on his paper, the clerk said, “Most certainly, sir. Now, who may I help next?”

Amelia and I were fortunately fully capable of carrying the one valise each we had brought, but the stiffness and fatigue concomitant with the early hour caused me to puff a little. We found our room, unlocked it, and tumbled inside. I helped Amelia out of her coat and hat, hung them up, then attended to my own. Amelia turned up the gas light. There was a small fire in the grate, and the room was cosy and well-appointed. It had a private WC and sink, which looked new, but not its own bath.

With some apparent urgency, Amelia went into the WC. I decided that I would undress and put on my nightclothes again. I heard the flush, and Amelia came out of the WC.

“I rather needed that. I don’t think my body had awakened before we were on the platform.”

“Yes, I think I am in the same state,” I responded, and followed her example. When I exited, I found her at the sink – it appeared to have hot water, which was welcome – flannelling her privates.

“Did your monthly courses start?” I asked.

“No. But I felt a little ... sticky.”

“In the train I was dreaming of our times together, in particular in Brighton after we married. For a while I was quite uncomfortable, so I will also wash.”

“How interesting! I dreamt of the same time.”

“Perhaps, then, it is a good time to compare our dreams, or even better try to re-enact them.”

“Oh Richard. What a good idea. And how fortunate that your meeting does not start until 2 o’clock.”

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