

# **The Ramblings of a “ Matelot ”**

**Reginald Harold Fricker**

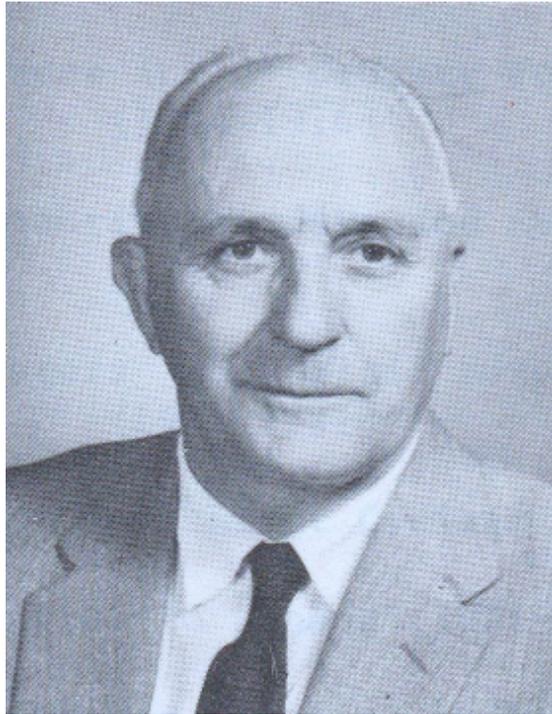
**ROYAL NAVAL COMMUNICATION CHIEF'S MESS**

**FROM**

**ROYAL NAVAL TELEGRAPHISTS (1918) ASSOC.**

THE RAMBLINGS OF A “MATELOT”

Reginald Harold Fricker



Dedicated to the Ex-Royal Naval  
Telegraphists 1918 Association

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## CHAPTER 1

### Formative Prelude (1894-1910)

This book is an attempt to recall in autobiographical form, from memories covering the past sixty years, some of my most vivid recollections of naval experiences in both World Wars, 1914-1918 and 1939-1945.

I was born on the 27<sup>th</sup> of November, 1894, when my family lived at 12 Marlborough Road, Lee, near Lewisham, Kent. Chronological sequence starts with early memories of attendance at a "Church" school, somewhere adjacent to my home. I think I took two pence per week as payment.

This period was nearing the end of an era in which girls were employed in "Service" at wages ranging from about three to nine pounds per annum and living in. I can just recall the girl employed by my parents working in the kitchen, adjacent to the garden, and a parrot that she owned jabbering away in a cage in the kitchen. Her boy friend was probably a sailor.

In those days people were divided into two distinct types, those with independent means or employment in the professions and those who kept small shops or worked in so-called lower categories.

I can dimly recall my father's connection with the Half Tone Engraving Company in Farrington Street, London, and his connection with the efforts to finance one of Stanley's expeditions to Africa. My mother had social engagements and was often at Lady Wimborne's parties.

There was a complete severance from this type of life when my family moved from Lee to Allfarthing Lane, Wandsworth. I was eventually sent to live on my grandparents farm at Terrington St. John, half way between King's Lynn and Wisbech, in Norfolk.

I must have been a peculiar type of boy as I delighted in disappearing and roaming around. My mother would take me shopping with her and I would take the first opportunity to disappear and would subsequently be found in a Police Station at about ten in the evening, drinking a bottle of pop and amusing the Policemen on duty. This was not considered funny by my parents. The farm did not cure me of this tendency and I did not take to the chores very well. Milking cows and feeding cattle and sorting good peas from bad ones night after night, with no company but my grandparents, made me want to run away even more. The only thing that I liked about the farm was the livestock, the horses in particular, and I became very adept at bareback riding

Terrington St. John was a small village with a Post Office, a couple of public houses, a general store, a bakery, a slaughterhouse complete with a butcher's shop, a school, two blacksmiths, an Anglican Church and a Primitive Methodist Chapel.

An ostler's cart, a closed van, made weekly trips to King's Lynn and Wisbech, which were six-and-a-half miles away, and passengers were charged sixpence each. There were people in the village who had never seen an automobile or a train and their lives were spent within the orbits of their own and the adjacent villages of Terrington St. Clements, Tilney All Saints and Tilney St. Lawrence.

There were factions, such as the groups who patronised one public house rather than the other, those who preferred the Church of England rather than the Chapel and those who preferred one farmer to another. My grandparents and household, including my Aunt and myself, attended the Church of England, which was in the charge of the Rev. Sprigg-Smith, who had previously been a missionary. It has always amazed me to see the tremendous number of beautiful old churches in Norfolk, most of them dating from around the thirteenth century. The belfry contained some beautiful bells and my grandfather apparently donated one of them. At least his name was on it. The churches were and are grand old buildings. The congregation at Terrington St. John Church averaged about six or eight people. I had to sit with my aunt in the choir and she had a very good voice. We got on pretty well together, my Aunt Hilda and I. I eventually persuaded my people to let me sit in one of the front pews with three or four other youngsters. I just could not bring myself to concentrate on the service and got more and more fed up with the same old things over and over again, and I am afraid that my influence on the other kids was all for the bad. I dared them to follow my example and one day during the Litany, when the parson said "All we like sheep have gone astray", I led the gang saying Ba-a. For this I was duly punished and eventually was withdrawn from the Church and sent to the Chapel instead. The Superintendent at the Chapel Sunday School was the blacksmith and I spent every spare moment that I had at the blacksmith's shop. I received the top prize at the Sunday School for the year 1906, much to my own and everyone else's surprise.

Mr. Sparks, the schoolmaster of the village school, was a bit of a martinet but was, I think, biased in my case by the fact that he owed a considerable bill to my grandfather. Anyhow, he gave me several severe canings. I use to hate his lessons, especially parsing and analysing, and remember particularly objection to having to parse and analyse the first few lines of Shelley's "Ode to a Skylark". I said that it was contradictory, doing such stuff a "Hail to thee, blythe spirit, bird thou never wert", as it was not even good English to start with. Old Sparks was quite rightly annoyed with me and made me suffer accordingly.

I had to accompany my grandmother to King's Lynn on Fridays, where she disposed of her dairy produce and did other farm business. This I enjoyed but it entailed being absent from school every Friday.

This led to trouble with the authorities and several hidings by the schoolmaster, which I deemed most unfair. There were threats of actions against the schoolmaster on account of the bruises that I came home with and I was eventually banished back to my parents in London. I was by no means blameless and this was probably the best way out.

This time our home was moved to Ashford, Middlesex, and I went to a school at Ashford Common, near Sunbury, called Spelthorpe. The headmaster at this school was Mr. Hollyoak and he had a sense of humour and an impartial attitude. I am afraid that I was a bit of a nuisance at this school also, although I stood well in class and was in standard ex seven at the age of twelve and thirteen. However, I had nothing but admiration and respect for Mr. Hollyoak, despite the fact that he broke a cane on my wrist and a sliver entered the sore and I had to wear my arm in a sling for a while. This injury resulted because he expected me to withdraw my hand when receiving the stroke and I did not do so. I used to sit next to the most studious and correct student in the school, a boy named Leslie Auger. My worst offence was talking. One day the headmaster was taking us in a lesson on ancient history and he was particularly calling our attention to prehistoric mammals. It was very nearly closing time and I said to Leslie Auger, "He's a prehistoric old mammal!" Mr Hollyoak saw me speak to Leslie and made us stay after school. He then asked us what was said and who spoke. I said that I did and Leslie agreed. The master then asked what was said and I said I had forgotten. He would not let it go at that and persisted, intimating that we should stay in till we remembered. You can imagine my embarrassment as I spluttered out "I s-said you were a prehistoric old mammal, sir". I duly received a couple of strokes, but I think that the old codger laughed at the episode. I used to take Leslie Auger home on my bike, so it did not put him out much.

I became a shining light in the football team and was very friendly to the other children. There was a peculiar type of prize given by a sponsor in Ashford for the most popular boy and the most popular girl, voted by the students of the school, the boys voting for the boy and the girls voting for the girl. I was called into the Head's office and told that, although I had been voted most popular boy by a very big margin, I could not receive the prize as I had not then been in the school quite twelve months. This was a bitter disappointment to me.

I left school soon afterwards and then the question of an apprenticeship arose. We had an interview with a gentleman at Strand on the Green, Chiswick, who was an electrical engineer and claimed to have put the first electrically driven launch on the Thames. He wanted a premium of fifty pounds and I was to be apprenticed for five or seven years, during which time I would receive very small wages. I was keen but my parents did not follow through. I was then put to work at half-a-crown a week in a motor engineer's shop with a type of verbal agreement apprenticeship. This entailed going thirteen miles to work, arriving at 8 A.M. and leaving at six P.M., with a half-day off on Saturdays.

The journey on an old push bike from Ashford to Chiswick, via Bedfont, Hounslow and Brentford, returning at night, was very arduous and indeed hazardous. The double tram tracks between Hounslow and Chiswick caused me many a skid and spill with odd cuts and bruises.

I then persuaded my parents to sign permission for me to join the Royal Navy as a boy seaman at the age of fifteen. There was some discussion between my parents about apprenticing to the Merchant Service as my mother had some business association with the White Star Line, but I suppose that I was not considered to be good enough or that they could not afford it.

## CHAPTER 2

### Introduction to Royal Navy (1910-1911)

I remember my tests at Whitehall on the tenth of September, 1910 and the unpreparedness and the quick departure, with sixpence in my pocket and a railway ticket, and my despatch on the train to Devonport. I bought a cup of tea and lost the three pence change and arrived hungry and excited. I travelled alone and was met and escorted to a boat which took me to H.M.S. Circe, which was the receiving ship for new entries. The time was about nine in the evening. I was taken to the Sick Bay, where I had to wait till the "Rounds" were completed before the Doctor could pass me as OK. The "Rounds" was a form of inspection, meticulously carried out from end to end of the ship at 9 P.M. by the Commanding Officer and his retinue, consisting of the representative heads of departments, while men and boys kept complete silence. I then told someone that I was hungry and I was given a hunk of bread and a mug of water. I was then given a hammock and somehow coped with it and turned in to the accompaniment of protests about the noise. I did not feel very happy.

The next morning I started being "Kitted Up" and went through the swimming pool, filled to a shallow depth with a strong disinfectant, together with other new entries. My clothes were taken from me and I was given uniform clothing to wear. My clothing was put through a fumigator and was offered a shilling for my suit, which I accepted, although it was practically new. This was an efficient way to ensure cleanliness to start with. The process of kitting up included the sewing on and painting of one's name on all items of kit and the introduction to the kit bag, which had a brass tally plate on the bottom with the name stamped on it. One was shown the way in which clothes had to be laid out for inspection. The string of the hammock and the painting and grafting of the clews was an item special attention at a later date after knots and splices had been mastered. This kit was subsequently paid for out of one's meagre wages over the course of one's Boy's Time. - (Incidentally, Boy's Time did not count towards pension). The surplus amount, after deduction of the price of his kit, was given to the Boy on his attaining the age of eighteen. It usually amounted to about five pounds and started the Boy off as an Ordinary Seaman in great style. This was the accumulation of his wages for approximately two and a half years

For spending money each boy received sixpence per week as a Second Class Boy and one shilling per week as a First Class Boy. By the way, it was not permitted to have more than a shilling in one's possession on the training ship. The surplus amounts, which could come in the form of Postal Orders from favourite aunts or what have you, had to be put into a Post Office Account, which was under the supervision of officials on the ship.

My next move, after the preliminary initiations on the "Circe", was a transfer to H.M.S. Impregnable, an old sailing ship of the line, with fairly spacious quarters for accommodations and class rooms. These first few days were a time of disillusionment for me as well as for the majority of the other boys. The refinements of life were left behind and the worst crudities and harshness of human nature were encountered. Some of the training ship staff were brutes (a carryover from the press gang era), whose main thoughts, innuendos and conversation apparently were connected with sodomy and allied subjects. I particularly remember a lecture, given by what I thought was not a particularly pleasant monk, on the subjects connected with sexuality. This was to me particularly nauseating and I think did more harm than good.

The first three months on the "Impregnable" were devoted to half days at school and half days at seamanship instruction. The schooling consisted of resume work and was followed by an examination, where the boys were segregated into classes --Advanced Class, Upper School 2 and Upper School 1. The Advanced Class boys were then started upon courses of Advanced Gunnery or Wireless Telegraphy, Upper School 2 went to Shotley, near Harwich, for signal training and Upper School 1 went to selected ships at sea for further training. They could subsequently catch up with the others by diligent application and gain promotions accordingly.

The instructors, individual class instructors and physical training instructors, and the "Crushers" (ship's police), each carried their particular "Stonicky" (rope's end, piece of cane, or piece of twisted wire), with which they gave passing boys a tap or two, sometimes with cause but seemingly just as often without. This was particularly objectionable when going up ladders for "Clear Lower Deck" calls for hoisting boats, when the boys would get their feet hit from the underside of the ladders and subsequently have sores for days. The Sick Bay had quite a few cases of damaged feet to cope with and eventually, in 1911, the old custom of boys being in bare feet was done away with. This improved things considerably and ring bolts on deck were no longer such hazards. Climbing the rigging every morning at around six in the prescribed manner, passing outside "Lubber's Hole," climbing up the "Jacob's Ladder" one at a time, and "Bellying the Truck", was quite a good exercise but was particular torture for some boys who suffered from fear of heights.

I enjoyed the physical training in general and was particularly good with the jumping horses, where I won several competitions. The Gunnery boys and the Wireless boys went ashore on alternative nights for football. As I had a friend on the Gunnery side, on one occasion I got my duck suit scrubbed quickly, stole into the boat at the Orlop Deck port, went ashore with the Gunnery boys, and joined in their football game. I was unfortunately found out through the fact that, when the duck suits were taken in off the line, mine were still left there. I was given three weeks' extra physical drill as punishment. This was torture to most, but I could take it in my stride. I saw many a boy break down and cry with the brutal instructor kicking or hitting him. To see a boy unable to chin the bar once more or do one more "Stoop Falling Place" in spite of such urging, was, to my mind, horrible.

A favourite phrase of some of the training staff was "Come on, you little bastard, you broke your mother's heart but you won't break mine". This was supposed to be funny but it never seemed so to me.

The requirement for staff for ships with wireless ratings was limited to manning only one office per ship in those days and small vessels did not carry wireless apparatus. This meant that only two of the Advanced Class boys were allowed to go in for Wireless Telegraphy. The subsequent schooling for the Wireless Boys was a concentrated form of training in high school subjects, including Inclined Plane, Magnetism and Electricity, and some elementary algebra, up to Polygon of Forces in Applied Mechanics. I was fortunate to become one of the Wireless Boys. The practical training in the description and use of wireless apparatus was quite strenuous, including the mastery of speed in transmitting and receiving the International Morse Code. Monthly exams were carried out and boys were relegated to "Ordinary Gunnery" if they failed, which meant that they went to sea to follow the same programme as the boys who were originally passed out in Upper School 1. The routine of the training ship was a fairly severe one. The washing of clothes, inspection of kits, scrubbing and airing of hammocks, physical training and route marches, and extra studies to prepare for exams were interspersed with boat pulling, the occasional game of football, and religious services. Sunday became a day to dread, inasmuch as attendance at religious services was compulsory and the cleaning of the ship, the mess that you belonged to in particular, before attending Sunday Divisions, was something to get out of if one possibly could. I therefore was fortunate to choose a nonconformist sect to belong to. This group was landed before "Divisions" on Sundays and marched to their respective churches. This generally proved to be of benefit later on in different ships of the fleet.

Boys came from all sorts of homes and some were much more used to hardships than others. Some had acquired the habit of smoking and would light up a cigarette in the "Heads" (lavatories) and pass it round on a pin to the others, keeping a sharp lookout for Instructors or Crushers. They would occasionally be caught and the punishment was severe, usually three or more cuts with the cane, depending upon whether they were first-timers or habitual offenders. This punishment was augmented by the solemnity of the occasion. The boy having been awarded the punishment would be taken below to a dimly lit compartment and would be placed over a contrivance, with his hands and feet fastened to ring bolts in the deck on either side. His shirt was pulled up and he had to wear duck pants, so that the least protection was provided. His class mates were grouped around with about six yards' clearance and the officer attending the punishment would read out the charge and declare the punishment to be awarded. The Ship's Corporal (Crusher) had a stock of canes, one for each stroke to be given. On the order to commence, he selected one cane and took about three paces towards the victim and brought the cane down with great force on the boy's behind.

The skin would generally be lacerated by the second or third stroke. I never saw a boy cringe or cry at the time. It was a horrible thing to witness

Some boys were very homesick and realised that they had made a bad mistake in joining the Navy. The only way to get their discharge from the Service was to commit a crime which would get them out. A friend of mine went ashore with the recreation party and deliberately missed the returning boat. He stayed around until he was picked up by a patrol. He was subsequently punished with six strokes, given as described above. He then went ashore again and did precisely the same thing and received nine strokes. He repeated the performance, received twelve strokes, and was "dishonourably" discharged.

The passing-out period in the Wireless Branch lasted three days and then those who qualified put on their W/T badges. This was a proud moment and a relief from strain in most cases.

## CHAPTER 3

### First Ships at Sea (1911-1912)

On the 31st of October, 1911, I was drafted to H.M.S. Inflexible, a battle cruiser and flag ship of the battle cruiser squadron, flying the flag of Admiral Bailey. On arrival I was introduced to "coaling ship." She had just finished a refit period at Chatham and was taking on some two thousand five hundred tons of coal. This was quite a job and was treated as an "Evolution", a sort of competition to beat previous records. Everybody on the ship took part and personnel were detailed to work in gangs on the collier, filling sacks and hooking them on to the crane hooks, manning wheeled carriers, each taking a sack as it arrived on deck and hauling it to the particular hole in the deck leading to the bunker and there tipping it for the Stokers below to stow in the bunkers. Needless to say, everything was smothered in coal dust and when the job was done, the cleaning of the ship and the scrubbing of clothing was carried out right away. This coaling ship was carried out every few days when the ship was steaming and in those days we did plenty of moving around. Incidentally, approximately fifty tons of coal were needed to raise steam in all boilers in this class of ship.

Wireless Boys were required to be given five hours instruction daily and were made second hands of watches, the first hands being telegraphist ratings or above. There was plenty to do, cleaning the office, reading buzzer exercises, mastering the art of manoeuvring signals with pieces representing ships on a board, starting with one formation and developing various others, running messages and making cocoa, etcetera.

I recall an embarrassing incident when at sea one night at about 1 A.M. I had made the cocoa, very thick, sweet and hot, and was taking a cup up to the Bridge to the Yeoman of Signals. The ship was darkened, night exercises were under way, and I had just reached the top of the ladder leading to the Bridge when my arm was knocked and a splash of the hot cocoa went on my hand. I let out an uncomplimentary remark and then felt my arm seized. I was then led to the Charthouse door and propelled inside.

The lights came on with the closing of the door and I was dumbfounded to find that I had collided with the Admiral. I was scared stiff but was allowed to carry on after explaining who I was and what I was doing. The Admiral took the cup from me, sampled it, said it was very good and retained it. I had to fetch another one for the Yeoman.

We all had tremendous pride in our Admiral and our ship. It was generally understood that his previous experiences in small, fast craft, had eminently fitted him for the control of battle cruisers, which had the speed of smaller craft such as destroyers, combined with the hitting power of a battleship.

Our squadron consisted of H.M.S. Inflexible, H.M.S. Indomitable, H.M.S. Invincible and H.M.S. Indefatigable, and competition between them in all manner of things was very keen. Evolutions, generally on Monday forenoons, boat racing, football, boxing, gunnery and other things were all matters for the keenest competition. Efficiency was the key word and to a great extent was achieved.

Our exercise areas were all over the place, such places as Scapa Flow, Invergordon, Weymouth and Rathmullen very often being our focal points. Each spring we would go to the Northwest of Spain for battle practice and we would go ashore for brief periods at Vigo or Villagarcia in the Arosa Bay area.

In March, 1912, the flag was transferred to H.M.S. Invincible and I was amongst the additional personnel transferred with the Admiral's Staff.

One evening we were giving a ship's concert prior to sailing on the Spring Cruise and this necessitated getting mess stools up on deck to afford seating accommodation. I was one of the two boys acting as cooks of the day for the Boys' Mess; my opposite number was a boy named Thames.

He came from Grimsby and was a big raw-boned fellow, inclined to bully the rest of the boys. He had been to sea quite a bit on fishing vessels out of Grimsby. We were engaged in taking our mess stools up a fairly vertical stairway. I was at the top end and encountered difficulty in forcing my way through the crowds on deck. The boy below became impatient and gave the stool a shove which knocked me into the men on deck, so I gave the stool a shove back down the ladder. We got the stool up eventually and then, when we had returned for the other one, Thames started to knock me about. I retaliated and, as he was so big, he was at a disadvantage in the narrow lane between the bag racks and I managed to get in a poke or two. The Physical Training Instructor, who was responsible for checking happenings in the Boys' mess, came along and took our names and we were booked to fight it out after Evening Quarters on the following day. A proper ring was arranged on the Quarter Deck and seconds and so on were arranged. The First Lieutenant was Lieutenant Goosander Cundall and when he heard my name mentioned on the Quarter Deck he looked surprised. It so happened that my father was brought up during part of his boyhood as an orphan by the Cundall family and Lieutenant Commander Cundall was his cousin. I, of course, did not broach the subject during my Service career, as such familiarity would be intolerable. The fight proceeded under Queensbury Rules and I thought that I was in for a hiding. However, everyone around was on the side of the little fellow and this helped me and discouraged my opponent with the consequence that, much to my surprise, the big fellow stopped fighting and shook hands with me about half way through the fourth round. This cleared things up in our mess and there was no more bullying.

There was at this time an interesting controversy regarding the merits of hydraulic as compared with electrical controls for the squadron's twelve-inch guns. The "INVINCIBLE" had electrical controls fitted, whereas the remainder of the squadron had hydraulic ones. One evening, while we were at a berth off Spithead, a private boat came alongside and up the gangway climbed an apparently unexpected guest. It later transpired that the First Lord of the Admiralty, Winston Churchill, had arrived on board.

He went on the crew's mess deck for a while and talked with some Stokers; this was a most unorthodox procedure. Our last leave had been a five-day affair and he elicited the information that the time did not permit men who lived in far-off places, such as the Hebrides, to go home. He also found that some of the men, because of this, only went as far as London, where they booked in at The Union Jack Club by Waterloo Station, picked up a girl friend and did what sailors are generally supposed to do under such circumstances. It may have been coincidence but when rules and regulations were later changed to allow extra travelling time in such circumstances and to permit the men to have their leave at home, our Lower Deck gave the credit to Mr. Churchill. Regarding the controversy over electric versus hydraulic controls, "INVINCIBLE" went to sea the next day and demonstrated the best firing in the squadron, but nevertheless hydraulics won the day on the grounds of greater reliability.

On the 2nd of October, 1912, I returned to H.M.S. Inflexible with the Admiral's Staff. The "INFLEXIBLE", by the way, belonged to Chatham Division and the "INVINCIBLE" to Portsmouth. This was a further cause for rivalry and keen competition. This, of course, applied to ships of the Devonport Division also.

During the year 1912 H.M.S. Lion joined the squadron and we had a cruise to Trondheim, Molde, Christiania and Copenhagen, all the leave possible being given at each place. This was a wonderful experience, meeting Norwegian and Danish people, exchanging points of view and taking in the scenery.

On the 10th October, 1912, we entered South Lock, Chatham, for a refit and general leave was started that evening, fourteen days for each watch, and very much looked forward to by all. We used to get our railway tickets at a greatly reduced price but when you consider that an able seaman's pay was only one shilling and eight pence per day, rising to three shillings and ten pence for Petty Officers (these being plain rates, without no substantive pay, which depended upon special qualifications in Gunnery, Torpedo, etc., and amounted to a few coppers more), it was obvious that a few concessions were in order. Good Conduct Badges, the first obtainable after three years with consecutive "Very Goods" for conduct after the age of eighteen, the second after another five years, and the third after a further five years, gave the recipient one penny per day extra for each.

There was no Separation Allowance, Clothing Allowance or relief of any sort. If, for instance, an able seaman got married, he had to support his wife and family on his pay, which meant that when he paid his monthly mess bill, he had very little left with which to go ashore when leave was given. The ship was one's home and going ashore was a luxury not often enjoyed, although one could have a couple of pints and go to a show for a shilling.

When entering a dockyard for refitting, it was the duty of the Wireless Branch to dismantle their rigging. On this particular occasion we were striking down the wireless yards and I fell foul of the gangway ladder, which was lying on the deck. My right foot went between the rungs and I fell, twisting my weight on my right leg. I could not stand on it, so Leading Seaman Judd picked me up and carried me to the Sick Bay. The Sick Berth Petty Officer was very annoyed as he was in his Number 1 suit, all ready for going ashore. He got a hold on my ankle and bent my knee, at which point I yelled. He then said "Shut up, you little bastard, it's only a sprain" and cursed me some more. The Ship's Surgeon then appeared and took "X" Ray pictures of the knee joint, which showed a "T" shaped fracture, the lower end of the femur being split, and some damage showing at the end of the bone. The ambulance was called and the Sick Berth Petty Officer was told to deliver me to the Royal Naval Hospital at Gillingham before proceeding on leave. He professed sorrow for what he had previously done and I never gave him away, although as things turned out, perhaps I should have done so.

I was very sorry to leave the "INFLEXIBLE" and to lose my notes of my studies, which were left on board. I was particularly disappointed at not going on leave.

## CHAPTER 4

### Naval Hospital, Valuable Training and Development of Initiative (1912-1914)

The Naval Hospital was not exactly a desirable residence. There were no pretty girls running around looking after you. The nursing was carried out by Sick Berth Stewards in training. They were all one might expect, I suppose. I was fitted up with an extension splint, a chunk of wood fastened from the ankle to the armpit, with the armpit end fastened to the bed post and the foot end secured via a pulley to a can of shot. There was considerable conjecture as to whether the epithesis had separated normally or whether it had been broken adrift in the accident. When the splint was eventually removed, the bindings were sticking to the flesh and a silly ass of a Sick Berth Attendant cut up each side with a pair of scissors. The circulation of the blood commenced after a few minutes and I was bleeding like a stuck pig. I went through various stages of wheel chair and crutches, and went on leave at last. I put on new boots and socks and within a few days I was back in the hospital, with a temperature of 103 degrees and blood poisoning from the blisters.

I eventually was messed in Chatham Barracks. By this time I was an Ordinary Telegraphist, having qualified and passed my eighteenth birthday on the 27th November, 1912. I was sent to H.M.S. Actaeon, near Sheerness, which was the combined Torpedo and Wireless School and housed those ratings belonging to the Chatham Division.

There was a unique method of training on the "ACTAEON". All the W/T ratings names were on a list and watchkeeping was maintained in rotation. When your name came up on the list you were given a receiver, crystal type and a transmitter, a small spark set with power supplied by a petrol-driven motor, driving a generator mounted on a plank. A dinghy was brought alongside and one other rating proceeded with you to the torpedo boat or coal-burning destroyer, such as the "AMAZON" or "AMETHYST", who was ordered to carry out some duty, such as towing a target or making a mock attack on Dover. The other chap simply delivered you with your gear and returned to the "ACTAEON", leaving you on your own.

The usual procedure was to clear out one of the "Heads" (toilets), Port or Starboard, on the forecastle, for temporary use as a W/T Office. The aerial had to be rigged as best you could and communications had to be maintained with "ACTAEON" hourly during the whole of the duration of the exercise or duty. If you failed through inability to fix the gear, seasickness or any other cause, you were in the "Report" on return and were punished accordingly. This was a very good way to create initiative as no one could possibly help you in the W/T line on board the ship you were on. These tours of duty were much appreciated as you received extra pay in the form of "Hard Laying Money", six pence per day, and also, if you could angle it, you could possibly leave the "ACTAEON" on a Thursday (the ship not sailing till Monday) and proceed on a "Friday While" (leave from Friday noon till A.M. Monday), the extra sixpence per day making you relatively rich.

I qualified for "Telegraphist" on the "ACTAEON" and did so well that I was given privileged jobs. The practice of initiative was very much to the fore. For example, I was despatched to H.M.S. Diadem, an old cruiser, arriving in the evening prior to her sailing the following morning for gunnery practice. She had just finished a very extensive refit and the W/T Office was in a real mess. All the key contacts had been stolen. There was quite a lot of platinum used in the early days for contacts. After getting the circuitry corrected, substituting for the missing contacts, and making the transmitting and receiving gear work, I found that there was only sufficient aerial wire on board to supply one strand to run from the W/T yard at the foremast to the after one. In the general rush to get under way there was no time to do otherwise than make a sort of jury rig. I went aloft and fastened this one piece of wire; the yards swung fore and aft, which was a most peculiar-looking affair, completely unorthodox and certainly not shipshape. I expected all sorts of trouble as a consequence of my endeavours but, as I maintained communications during our period in the North Sea without a hitch, my subsequent report, backed up by the Commanding Officer, was accepted and I was given a pat on the back and commended.

I was given another special job, working with the Navy's Flying Ace, Commander Samson. He was preparing a plane for flight from Dead Man's Island, near Sheerness, via North Foreland and South Foreland and back.

The plane was fitted with a small spark transmitter and sent its position every few minutes, which was received on "ACTAEON" and logged. We did not put receiving gear on the plane. The transmitter worked fine.

I was sent, as a volunteer of course, to report to the Senior Officer of the submarine flotilla at Harwich, Lieutenant Commander Benning, on C9. I was given ad.lib. to equip C9 with W/T apparatus. There was scarcely any room available. I had a little temporary wooden hutch made with a heel pin arrangement for securing its base to the deck of the Conning Tower. When upright the pin would go in. To lower it, the pin was removed and the mast laid flat. The aerial was a sausage-shaped affair with a wire ring in the middle where the mast head would be, and the ends were fastened to halyards which passed through pulleys fore and aft and were brought in to a cleat on the mast. The top of the mast was shouldered and the ring at the middle of the aerial fitted on this shoulder. When fastened by the haly it remained snug. The lead-in was passed won the Conning Tower and fastened to a lead-in insulator on the wooden arrangement below.

We proceeded to sea to take part in manoeuvres, with blue and red forces in opposition. Our parent ship, H.M.S. Bonaventure, went with us and I had to maintain communications with her in addition to intercepting any enemy information that I could. I should mention here that the gear worked fine. I augmented what I could not obtain from Naval Stores by bits of gear that I made or obtained from Gamages. The preliminary exercises evidently pleased all concerned and satisfied the authorities that W/T was a desirable thing to have on submarines. Five other boats were similarly fitted.

There was then a second set of manoeuvres and we proceeded Northwards towards Grimsby. I was horribly seasick as we very seldom submerged. When I was taken on board, one of the seamen was taken off and I was given my Diving Station and instructed how to use the airlock, the original escape device. My diving station was No.4 Main Valve, which was the control of the Central Main Balance Tank. When we went to diving stations, I had to let go the aerial, lower the mast and put a loop over it to hold it down on deck, and throw the aerial down below before descending myself. By the time I was at my station the other tanks, Nos. 1,2,3,5,6 and 7 would be flooded, with the seamen sitting in their positions, the coxswain at the wheel and the second coxswain at the Diving Helm, the Engine Room Artificer at the controls for blowing air, and his Stoker assistant adjacent to the engine. The Commanding Officer and his "Second Dickey", a sub lieutenant, would give the order, which were all repeated back as they were carried out.

As I arrived at my station I was ordered to open No. 4 to flood, the trim being corrected by blowing water either forward or aft as the spirit level indicated. Diving Helm was set to clear the keels of shipping and the vessel was propelled by electric motors, the power being supplied by batteries, which were located under the deck. There were no bulkheads and one could see the two torpedo tubes forward and the petrol-driven engines aft. The fumes from the engines, which remained enclosed within the hull, were obnoxious but generally I enjoyed the peaceful progress while submerged.

One day, while proceeding in quarter line on the quarter of "BONAVENTURE", I was on deck when suddenly there was a hell of a din from below and we pulled out of line and stopped. Eventually it transpired that there was trouble in No. 4 crankpit. We would not have sufficient "juice" in the battery to take us to Grimsby, so we had to be taken in tow. This was where I had to shine, as my position on deck was on the forecastle by the bite. First a heaving line was thrown from the "BONAVENTURE", the ball (Turk's Head) on the end of the line hitting me as it was such a good shot. This line was passed back to the Conning Tower and along came a grass line after it. This floated on the surface and unfortunately, due to the pitching we were doing in the rather rough sea, it got foul underneath the starboard hydroplane, which would normally be a little below the surface and protruding from the hull. The Second Coxswain held the fore-and-aft life line in his left hand and my left hand in his right hand while I had to get on the hydroplane and reach underneath to free the grass line.

This was an experience that I would not like to repeat. We got to Grimsby, however, and repairs were effected. We had another mishap soon afterwards. We made an attack on one of the "Enemy" ships and, as destroyers appeared over the horizon, we dived and headed for Grimsby.

All was well until suddenly we collided with something and I can remember the looks of apprehension that passed between us while waiting to see what had happened. When the Captain ordered the blowing of the tanks and we came up OK and no water had entered, we were all very much relieved. By flooding aft, the bow was raised a little, but no damage showed but when the stern was examined, it was found that two sides of the "A" bracket around the propeller were missing. This was a close call, as the smallest amount of sea water penetrating the hull would have no trouble in reaching the dilute sulphuric acid in the batteries under the deck, which consisted of loosely laid planks. The mixture of salt water and sulphuric acid would immediately release chlorine gas and asphyxiate the crew. This was a sample of the submariners ' life in those days of peace prior to the 1914-1918 war. These experiences with both aircraft" and submarines were unique and very much worthwhile.

I was eventually returned to Chatham, however. After some more trouble with my fractured thigh, I was sent to H.M.S. Goliath, where I had a maintenance and modification job to do, in the Reserve Fleet at Milford Haven. This was the 31st of October, 1913. There were modifications to be made to the W/T gear on the old battleships "GOLIATH", "ALBION", "OCEAN", "CANOPUS" and "JUPITER", and the old four-funnelled cruiser "TERRIBLE", with routine tests. I occasionally attended hospital at Pembroke Dock for treatment to my leg but it persisted in giving trouble, so I was given a working passage to Haslar Hospital in Portsmouth on H.M.S. Terrible, which was flying her paying-off pennant once more. She had seen lots of service, including the Boxer Rebellion.

There were reduced nucleus crews on the Reserve Fleet ships at Milford Haven, the "GOLIATH" being senior officer. I rigged up a radio link between the Post Office at Milford and the "GOLIATH" and arranged to set routines for contact when the weather was bad, so that the Captain could control affairs from shore when necessary. I had quite a pleasant time instructing the pretty girls in the Post Office how to work the gear and read our messages, as they were used to sounder morse and not buzzer as applied to wireless telegraphy. The arrangement proved to be very efficient and adequate.

Captain Shelford of H.M.S. Goliath had a very fine reputation as a navigator. He had performed a remarkable feat with H.M.S. Glory up the Yangtze Kiang. Our Commander was a renowned United Services boxer and eventually won the V.C. fighting ashore in Africa. Our First Lieutenant was unfortunately a drug addict. He was eventually taken prisoner during the fighting in Africa. I was told that the cutting off of his drug supply almost killed him, but he survived and was eventually released and was freed from his habit, so his being taken prisoner did him some good.

The Captain expected me to rejoin the ship at Portsmouth after my hospital treatment at Haslar as the ship was taking part in the Spithead Review, which took place just prior to the outbreak of the 1914-1918 war.

However, this was not to be. At one time a Thomas Splint was fitted to my right boot and I was faced with the prospect of going the remainder of my life with this thing on. Eventually a specialist surgeon opened up my leg and removed some overgrown callus. I had the stitches out and was in a chair looking over the wall at the review from the Haslar Hospital grounds.

## CHAPTER 5

### Experiences in "I" Cruiser Force (1914-1916)

I left hospital with the usual recommendations for Sick Leave and Light Duty the day before war was declared. On arrival at Portsmouth Barracks I deliberately ignored the fact that I was supposed to go on leave, I joined the queue of Mobilising men and passed the Doctor, although I had difficulty in hiding my limp. I was put on watchkeeping at once and actually made the Admiralty Message to all ships that a State of War existed.

The next day I was drafted to H.M.S. Europa, an old four-funnelled cruiser, and proceeded to get her W/T apparatus working. After a day or two Leading Telegraphist Pearn and Telegraphist Todd joined the ship and we went to sea.

The "EUROPA" was infested with cockroaches and rats and was intended for the breakers' yard, but the outbreak of war necessitated the use of all warships that could possibly go to sea. Her evaporator system was hopelessly defective, so the system was removed from another old cruiser and installed on the upper deck of "EUROPA", the piping being connected to the appropriate points below. The fresh water supply was limited to three quarts of water per day per man, the old sailing ship ration. A certain amount of water for our mess was issued in the morning and this was placed in the mess tub. All the members of the mess, about fifteen or twenty men, washed in this tub.

The Morning Watchkeepers had the worst of the deal, as the water was pretty thick by the time that they came off watch and washed. Little things like collars were then washed and then the table, stools and deck. This rationing business was cursed by all, especially in hot weather, while we were adjacent to the North African Coast. To obtain water for photography or any other purpose was practically impossible, as we had very long periods at sea and hardly ever got near a fresh water supply. To make matters worse, our Maltese canteen personnel deserted the ship and we continued without a canteen for the remainder of the time that I was on her. The stock of flour was condemned after some attempts to use it, and we had to eventually settle down to a diet of corned beef and salt pork on alternate days, with strict water rationing and lime juice at noon to keep some semblance of health.

An attempt was made to fumigate the ship. The decks were cleared and all spaces were checked to be sure that no one would be trapped inside, then the doorways were sealed and sulphur candles were burnt in an endeavour to eliminate the cockroaches and rats. There was an interval after this when they were not seen but they continued to appear in as great numbers as ever after a couple of days or so.

The cockroaches would cluster on the beams overhead like small swarms of bees and drop indiscriminately all the time. It was regular routine on turning out in the morning to remove the mattress, shake the cockroaches off, and stomp on them before replacing the mattress and lashing up the hammock.

The rats were very unpleasant shipmates. We had used a lot of old wire hawsers to make a splinter net around the Sick Bay to protect it from shrapnel effect in case of being hit in that area. My hammock billet was close to this and I could watch the rats playing tag amongst the wires. It was quite a common sight to see a rat pass from one beam to another by way of a hammock. With the stifling heat and under blackout conditions one' slept with the least amount of cover. It was not pleasant to wake up and see a rat looking at you from the side of your hammock. This happened to me one night and I gave a convulsive heave which threw the rat over a steel partition on to the Master at Arms' mess table. I think he was playing patience and thought that someone had thrown the rat at him purposely.

We had accumulated a few good alley cats. They did a pretty good job within their capacity.

At this time I had what perhaps was the worst experience of my life from the point of view of human relationships. Watch- keepers were given the privilege of laying in till 6.15 A.M. The hammock stowage was in bins by the ship's side on deck. All hands, other than watchkeepers, turned out at 4.30 A.M. on some ships and 5 A.M. on others and did various types of work, generally in the cleaning line, before being fallen in a 6 A.M. when they were detailed for work in various parts of the ship.

One particular morning I passed behind the ranks of those fallen in to stow my hammock and the Commander called out "That man with the hammock, come out here". I started to obey, leaving the hammock where it was, and he said "Fetch your hammock with you".

I did so and a few of the men snickered. This made him very angry. He then said "Why did you not run, who are you and why are you stowing your hammock at such a time?" I told him who I was and that I was a watchkeeper. Then he said "Stow your hammock then" and I walked away with it. He then berated me for not running with it and told me to fall in on the Quarter Deck. When he had finished with all hands, he threatened the snickerers and berated them all and called them a bunch of imbeciles, claiming that he was the only sane person amongst them and that he had two certificates to prove it. (He had, unfortunately, been in Yarmouth Asylum, we were told.)

However, he sent for the Master at Arms and preferred a charge against me for not running to stow my hammock. I told him that I could not run and that I was on light duty, excused from physical exercises on account of having just left hospital after the operation on my thigh. He became livid, sent to the Sick Bay to verify the facts and, very sarcastically, told me that when I was dismissed from the hearing, I was to be sure and walk away. He held this personal spite against me, waited his chance to trump up a charge, and sent me to Detention at Gibraltar for forty-two days when we went there to coal ship. Our Captain had been invalided home with pneumonia and he was acting Captain at the time. It should be pointed out that, to a zealous youngster, as I was, wartime was the obvious chance to shine and gain promotion and that such a blot on your papers would nullify your chances. An unprecedented thing happened in my case. I was returned to the same ship to resume my normal associations. The Commander, however, had been recalled to Britain and the Torpedo Officer and Signal Boatswain sympathised with me. It was explained that I would be required for special installation work, which was to be carried out at Portsmouth in the near future. with the collaboration of the Chief Writer I drew up a statement of complaint for submitting to the Admiralty.

We duly arrived at Portsmouth and we installed Type 1 and Poulsen Arc equipment, which made the ship the most powerful W/T ship afloat. We then embarked Admiral Moore, who was very interested in our equipment and the results that we obtained.

This all took place around Christmas time, 1914. We sailed from Portsmouth the same day as the new battleship, H.M.S. Queen Elizabeth, which eventually turned up at the Dardanelles where she did some gunnery practice on the fortifications.

I was very keen on our new equipment and we had an addition to our staff in the person of Leading Telegraphist Andrews. We were excused from ship's routine, having to spend all our time preparing for and carrying out routine tests. This necessitated mixing up black lead and asbestos for repacking the Poulsen Arc chamber, so we wore overalls all the time.

We had a double-sized "Silent Cabinet" with our receiving gear. Sometimes the Admiral would occupy the second chair in it and give us permission to smoke while working, which was very much appreciated. We had one of the first receiving valves for use in our circuitry but found that receiving (by heterodyne action) with our miniature arc was far better. We could be anywhere in the Atlantic and listen to Nauen, Germany, Madrid in Spain, and Washington, U.S.A., exchanging messages. This was copied by the pageful and sent to the Admiralty. This was before the U.S.A. entered the war and I think proved of value in regard to contraband shipments. We had no difficulty in communicating with Horsea, day and night, as far South as the Cape Verde Islands, this being as far as we tested with our Poulsen Arc gear (continuous wave) but the latitude of Gibraltar was our limit by day for our spark transmitter.

During these experiments it was necessary to take the top off the arc chamber, pour some methylated spirits in, light it with a taper and replace the top, with the methylated still alight, to create the hydrocarbonaceous gas required for operation. I was affected by the fumes and sent ashore at Madeira to recuperate from this form of alcoholic poisoning. I thought it was tough getting such a complaint without a drink. The sequel was peculiar. Portugal at that time, had not declared war and therefore I had to wear civilian clothes. Leave was given to Officers Only for that particular afternoon and evening and, of course, they wore civilian clothing. There was a Midshipman named Mitchell on board, who came from the same district as I near Ashford, Middlesex; he had been discharged for some misdemeanour a little prior to the outbreak of war but had been pardoned and recalled for Service. We were friends but of course could not fraternise on board, since he was an officer and I a rating. However, he went ashore that afternoon at Funchal, Madeira. We had a couple of drinks and I took him, via the railway, the big sanitarium up the hill, where I was to recover.

In the meanwhile, down on the flat the means of transport between the landing wharf and the station intrigued us, as the tram was drawn by two bullocks. We gave the driver a little cash and we rode, one on each of the bullocks, and this amused the locals quite a lot. The normal means of travel downhill was via a carro. This was like a sled used in the snow and the carro boys became very adept in using it on the slippery cobblestone roads. The braking was effected by means of a leather device, manipulated under the runners. The sanitarium was built and owned by Germans and was a very expensive place to live in prior to the war. However, the Germans had gone and the housekeeper, with a large staff, was looking after the place, swimming pool, tennis courts, and all. There was a little W/T station (an army portable set), with which we kept routines and it was very useful for local communications.

This was run by an army colonel's son but it had broken down. I soon effected repairs and, together with Mr. Mitchell, we had a grand afternoon with the billiard room and the whole estate at our disposal. As it was getting late, we had to hurry for him to catch the boat returning to the ship. There were two carros available on the premises, so we got both of them out and induced the carro boys to race down the hill with the two of us. I should point out that there was an irrigation ditch each side of the road, and the road was covered by smooth surfaced cobblestones. When water was required to flow through one's gardens, this was accomplished by a system of damming. We were racing round a slight bend when Mr. Mitchell fell out and into the ditch. He had some slight contusions and a little blood showing and his clothes were in a mess. When he reached the ship he was duly punished. He let me know by private message what was in store for me, as we had been reported by other officers ashore for unbecoming behaviour in riding the oxen. I thought it advisable to stretch out my convalescent period.

Regarding Mr. Mitchell's behaviour in general, I must recall an interesting and somewhat amusing episode. One Sunday morning, when all hands were fallen in at "Divisions", all in their best rigs and sweltering in the heat somewhere in the vicinity of Mogador or Agadir off the Moroccan coast, the Captain's little dog was chasing sea gulls and accidentally jumped overboard. My friend, Midshipman Mitchell, realized what was for him a heaven-sent opportunity to cool off. He stepped from the front of the Stokers' section for which he was responsible, and jumped overboard through one of the port-side upper-deck gun ports. In a very little time the "Man Overboard" cry was heard and the ship was brought round 180 degrees. By this time there was no sign of Mr. Mitchell or the dog and it took some time to reach the position where they were. It was quite a sight. There was Mr. Mitchell, with the dog's front paws on his chest, swimming on his back contentedly. He had discarded his jacket, which somehow continued to float until they were taken on board the boat which had been lowered to pick them up. Poor Mitchell. He thought he would be commended for saving the dog's life but he was thoroughly disillusioned by the Commander, who pointed out that he, the Commander, was responsible for the lives of personnel on board and that Mr. Mitchell's action in jumping into shark-infested waters deserved the utmost condemnation and so forth.

This was not the end of the matter. Midshipman Mitchell kept watch under the watchful eye of the Torpedo Officer, who was the senior Lieutenant on the ship. When he was berated by this officer and his actions were severely criticised, he dared to mutter some reply. The Torpedo Officer then said "Surely you must realise that you are talking to the Senior Lieutenant of the ship", to which poor Mitchell exasperatedly replied "Oh, for goodness sake, that's nothing. I'm the Senior Midshipman". He, of course, was punished accordingly.

He subsequently came into the W/T Office, where he told me all about it and I sympathised with him. I think that he must have developed into a fine character in later life, provided that he retained his sense of humour.

Regarding the episode at Funchal, Madeira, I was very lucky as "EUROPA" proceeded to the Dardanelles, where she maintained communications with the Admiralty throughout that campaign. I was transferred with the Admiral's Staff to H.M.S. Amphitrite, another old four-funnelled cruiser, on the 24th of May, 1915, and the incident was forgotten. On the 1st of June, 1915, the Flag transferred to H.M.S. Argonaut, a similar ship. I was advised by the Flag Lieutenant not to pursue my claim on the Admiralty. I was made a Leading Telegraphist and transferred to H.M.S. Essex, a County Class cruiser, on the 15th of July, 1915. The W/T staff on the older cruisers consisted of a Leading Telegraphist and two others. In the case of H.M.S. Argonaut, I remember, one was an ex Midland Railway telegraphist, hurriedly instructed and sent to sea, and the other was an operator, Marconi-trained, with experience of one voyage.

The orders were that, where a Telegraphist or above was carried, he was responsible to the Captain. The staff recruited from other sources, such as I have just alluded to, were given the rate, pay and privileges of Chief Petty Officers. This caused quite a bit of bad feeling. On the "ARGONAUT", where a Bill Vennell was the Leading Telegraphist, the two "Chiefs" were supposedly unable to read the Press made by Poldhu in Cornwall nightly and

Bill kept a steady middle watch accordingly. As he had to do the cleaning chores as well, I thought it was a bit thick. Of course, while I was on board, it eased the strain for him. However, I got the Flag Lieutenant to arrange that the two "Chiefs" should have buzzer exercises till it was agreed that they could from there on read Poldhu between them, which made things a lot more satisfactory all round. The crews of all these ships were largely Royal Fleet Reserve and I would say that they were the pick of the Navy - bus men, policemen, builders, labourers, and all sorts, who had in most cases completed twelve years of Service before joining the Reserve.

H.M.S. Essex was commanded by Captain Watson, a very fine officer and, I believe, a friend at court of Queen Victoria. He gave us some very interesting lectures on the course of the war and brought in anecdotes of his career when he came in touch with Kaiser Wilhelm on occasions while acting as Naval Attaché in Berlin, and when at sea he was ordered aboard the "HohenZollern", the Kaiser's yacht.

The W/T staff on H.M.S. Essex consisted of a Petty Officer Telegraphist, named William Froud, myself and an Ordinary Telegraphist. Properly trained telegraphist ratings were in very short supply. Due to the rapid expansion of the number of ships equipped with W/T, an influx of all sorts of people, quickly trained in morse and Naval operating procedure, was essential. As Boy entries, we had received training from the time of joining till we were qualified as Telegraphists at the age of eighteen years and six months, a solid training of approximately three years, before taking charge of a watch. The standard dropped sharply as a consequence of this influx. Then the W/T and Visual Signalling branches were ordered to be co-ordinated, and the old W/T personnel eventually passed out of existence in the new merging arrangement, where operating only was required. New specialist sections were introduced to look after the technical side. This was where we finally parted with the Torpedo branch.

One day, soon after I joined H.M.S. Essex, Bill Freud, the Petty Officer Telegraphist, who incidentally played rugby for the United Services and was a particularly clean-living, splendid type of man, fell ill and it transpired that he had blackwater fever. He was transferred to an armed merchant cruiser on her way to England but to our deep regret he died before reaching there, leaving a bereaved wife and family.

I, of course, carried on in charge, being responsible to the Captain. One day the Captain sent for me and told me that he had received a message from the Admiralty which informed him that a very much "wanted" spy had sailed on a Spanish ship from Lisbon, Portugal, bound for South America. We were to intercept if possible. The Captain had made the necessary alteration in our course but we were a long way off, somewhere in the vicinity of the Canary Islands, and he supposed that the captain of the Spanish ship would know who he had on board and would not assist us in taking him. I was ordered to go and think it over and suggest any possible action I might take to help in this matter. I knew at once that I must maintain W/T silence on 600 metres, the Merchant Ship wavelength, with our service transmitter, as its note was so well known that all around would know that it was a Royal Navy ship and, if it was very loud, it could be assumed to be close and evasive action could

be taken. I asked the Captain for the name of a merchant ship that would be normally encountered in the area and he suggested the "MINNEHAHA", a grain carrier. I looked up her call letters, made a transmitter, with a ten-inch induction coil, a bunch of Leyden Jars, a spark gap, a primary inductance made of copper tubing (formed on a practice 6" projectile) and a coupling to our aerial, made with Pattern 611 wire. I practiced commercial procedure, which was quite different from Naval, and took advantage of the fact that all ships within range of each other used to call and exchange their weather conditions, which followed a distinct pattern, more or less as follows:-"Ere SS Sinbad fm Genoa bnd New York, sea choppy, wind WSW strength 5, visibility clear, position 42.47N 18.51W, course WNW speed 10 knots". Everybody used abbreviated English, such as GMOM (good morning old man). I made my call and made a suitable message, purporting to be S.S. Minnehaha, and in due course the Spanish ship replied with his information. We did intercept the ship and took high-handed action with a boarding party looking for contraband and, sure enough, we took our man, who was disguised as a fireman, on board and eventually to Gibraltar. I often wondered what became of him and whether they guessed how he was caught. Of course, this was only possible in the days when W/T Direction Finding had not been developed and W/T Silence had not been imposed on shipping.

At about this time our Ordinary Telegraphist developed some complaint and died, which left our staff sadly depleted. We had a Signalmans, who was pretty keen, keeping watch under training and we also had a Seaman Boy messenger, a real smart Cockney type, whom we were teaching morse and training also. He was transferred to the W/T branch and we carried on to the best of our ability. Incidentally, the young Cockney, known as Cock Arter, became a very fine senior rating later.

As an instance of the charmed life that the German Raider Moue had, I relate the following. It was most embarrassing at the time. This happened while Bill Froud was in charge. On all ships the general instructions were to write down everything that we heard while on watch in the W/T Log. We were also ordered to report anything at all in the nature of code. Our ex Signalmans was on watch and it subsequently transpired that he had written a code group in the log but had not reported it. This code group gave the position of the ship and the fact that it was being attacked by an enemy raider. It subsequently turned out that we must have been about twenty miles from the action and, if this group had been reported, it would have been the end of the "MOUE". The ex Signalmans got thirty-five days detention.

One day, while patrolling under the lee of Teneriffe in bad weather, we received a message from Admiralty informing us that an interned German vessel had been blown from her moorings at Teneriffe Harbour and might be driven beyond the three-mile limit. This message was sent to us as the result of information sent by cable via Dakar to London, presumably by some friendly Consul in Teneriffe.

Captain Watson lost no time, however, and we soon arrived on the scene. The weather was quite bad but a Spanish tug was there and was in the act of taking the German ship in tow. We came close to her and our Captain got going with a megaphone.

He used appropriate seamen\*s language and scared the pants off the Spaniard so that he left the ship and returned to harbour. We lowered a boat and sent a boarding party away but the Germans had time to destroy some vital parts of machinery, so that we could not steam her. We then took her in town and took her to St. Vincent, Cape Verde Islands, about 800 miles.' She was the S.S. Telde, on her maiden voyage when war broke out. She had coaled at Newcastle prior to going to the Canary Islands. She fetched a nice price in the Prize Court.

We were eventually ordered to proceed to Devonport and pay off. I was the senior Chatham rating on board so I had to take charge of the Chatham ratings and take them to Chatham Barracks, where we arrived on the 24th of August, 1916. We duly entrained and I made sure that their papers were in order and I tried to make them behave. We arrived at Waterloo with the window broken in one carriage. I collected from those in the carriage and squared away the Railway people. We arrived at Chatham Barracks in the early evening and I told the gang that I would try to get them permission to proceed straight away on leave without going through the routine of getting detailed for messes, kit inspection, etcetera, if they behaved. I requested the Master at Arms for permission to see to see the Commanding Officer regarding this matter and was escorted to the billiard room in the Officers' Quarters, where, much to my astonishment I found that the Commanding Officer was Commander Cundall. We still did not refer to family connections. The request was granted and a bunch of very happy sailors went on leave, according to how MUCH TIME they had been on foreign service.

## CHAPTER 6

### Anti-submarine Warfare and Escort Duties (1916-1919)

On the 19th of September, 1916, I joined H.M.S. Christopher, a destroyer belonging to the fourth flotilla, at Barrow-in-Furness, where she was nearing the end of her refit after the Battle of Jutland. In those days there were twenty destroyers in a flotilla. Six of the original flotilla were lost at Jutland in practically suicidal action.

Here I would like to remark that very often Lower Deck views and officially publicised views did not always coincide. For instance, when war broke out, Admiral Bailey was taken from the ships that he had developed so successfully and proven himself to be so superb with pre-war manoeuvres - the battle cruisers - and was placed in command of our slowest battle squadron, subsequently losing the "FORMIDABLE". He was posted ashore and eventually operated "Q" boats (mystery ships) with Queenstown as his base. This rankled with those who knew him and Admiral Beattie was looked on askance. Then, at Dogger Bank, when Admiral Beattie transferred his flag from "LION", when she was hit, to "PRINCESS ROYAL", instead of turning over to his next-in-command on "TIGER", Admiral Moore, it was considered possible that the delay assisted the remainder of the German ships to make their escape. Otherwise we might have sunk one or two more in addition to the "BLUCHER". At Jutland the loss of the destroyers of the Fourth Flotilla and the sinking by the Germans of our battle cruisers, who turned in succession on one point, thus offering relatively easy targets, were also matters of much speculation and criticism among the men.

Now, resuming where I joined H.M.S. Christopher. This class, "CHRISTOPHER", "ACHATES", "PORPOISE", "CONTEST", "SPITFIRE", etcetera, were the first oil-burning destroyers and had good endurance for those days, being able to stay at sea for up to seven days at normal speeds. They were not fast in comparison with "SWIFT" or "TARTAR", but they could do thirty-two knots and were very fine sea boats. They could hold their own in any weather conditions.

We proceeded to Immingham and carried out patrols close to Heligoland, generally in company with the light cruiser "ACTIVE". The general idea was to try to entice German forces out from behind their defences. We were also fitted with a special high angle 4" gun to fire at any Zeppelin that we might see on its way to or from Britain. The Zeppelins operated at first by medium frequency direction finding equipment for course setting and came over on dark nights, but when we jammed the frequencies that they operated on, they had to come over on moonlight nights. We had an occasional scurry but nothing of great consequence. We did not put up our hammocks or turn in while at sea, being always on the alert. After a while we were sent South and patrolled the Channel and escorted troops to and from France. The tempo crept up and we were more and more at sea. Later we were based at Plymouth and from then on we had it really tough. Our Captain was Lieutenant Peters, who came from Canada. He was a brilliant, hard-working, most zealous

officer. He was blamed by the crew for volunteering for all the most arduous jobs he could find. He was the type that won the war--cool, calm and deliberate.

One day we were patrolling in the vicinity of Portland Bill in company with "CONTEST". We were always junior officer when in company with other ships. I heard faint signals made by an emergency transmitter, however, and gave the coded message to the Bridge right away. Suddenly we altered course about ninety degrees to port and went full ahead, leaving the other destroyer to wonder what it was all about until he read our flags. We soon came up with some ships and escorted them a little way. The Captain then had everybody piped aft. I still stood with the phones on in the doorway of my office at the break of the forecastle, wondering what it was all about, when the Coxswain yelled for me to come aft as well. I put the Boy on watch (we had a Boy telegraphist under training, to assist at that time) and going aft I was told to mount the anti-aircraft gun platform, where the Captain was. You can imagine my embarrassment when the Captain informed the crew that he wanted to tell them how particular attention to duty had saved the ships that we had just left as we had read the very weak distress signals they had made and the senior officer's ship had missed them. This, of course, pleased the Captain very much.

I must digress a little to tell in as simple a way as possible what I did to Improve my W/T apparatus. It was generally considered that about one hundred miles was our limit for transmitting with our little fixed-gap transmitters and limited-size aerial. I dismantled the fan motor, which was located just outside the galley by the break of the forecastle, took it to a "Dockyard Matey" and got him to replace the fan on the shaft with a brass wheel, insulated from the shaft with eight studs screwed into the perimeter. I brought the original leads from the spark gap to a pair of insulated pillars with a stud on each, and I rotated the wheel between, adjusting the gap between the studs on the wheel and the studs on the insulated pillars to as close a gap as I could. This made a rotary gap in the place of the fixed one. I went on board H.M.S. Revenge, a battleship, in Devonport Dockyard and scrounged some tellurium and zincite, which made a crystal combination of greater sensitivity than bornite and zincite or carborundum and steel combinations. You can imagine how pleased I was when I tried out my whole outfit while somewhere near Finisterre and communicated easily, with sunlight at both ends, with Valencia on the West Coast of Ireland, a distance well in excess of three hundred and eighty miles. It soon became known and we were used as the general repeating ship when at sea, as we were never out of touch with Captain "D" on the old "HECLA" at Devonport.

This was not accomplished, however, without some trouble. Our officer complement on "CHRISTOPHER" included a lieutenant in command, a sub lieutenant as No.1, and a Gunner "T" as junior. The Gunner "T", acting by the book, quite rightly put me in the "Report" for dismantling the fan, which was in his department, and putting it to improper use.

The Warrant Telegraphist from the "HECLA" came aboard and after seeing the apparatus, apparently got me off the hook with the Gunner "T" and the Captain and the case against me was dropped. I also had made an inductance, wound on the loom of a broken car, which, combined with the correct capacity, made a far more effective buzzer transmitter circuit for making harbour entry signals to the station on the breakwater at

Plymouth. Mr. Turgoose, the Warrant Telegraphist, had a sackful of these made and distributed to the other boats of the flotilla with instructions. A new transmitter, known as Type 4A, with a rotary spark gap, was supplied within a few months of this affair. I think our Captain was quite proud of his W/T outfit. He sure kept us all on our toes.

As regards anti-submarine warfare, we were selected to try out circular-running torpedoes and originally we had all the newly developed depth charges that we could carry, lashed to our rails. We eventually had a small railway aft with some "D" type depth charges, which could be released from the Bridge, and a winch with wire run out to explosive-type paravanes on each quarter, which could also be detonated from the Bridge or by contact.

All ships being attacked or sighting submarines in the area of the Western Approaches, or elsewhere for that matter, would make SOS followed by S's and, of course, their positions. The area was divided into squares on special charts and I maintained a system, in with the Captain, whereby I filled out a tab with name, date and pertinent particulars on it, fastened it to a pin and placed it on the chart for every SOS received. These amounted to something like five or six in an hour. I would keep watch till I passed out, sometimes being given a drink by the Captain to keep me going. He made a special study of the information gathered and worked out a scheme whereby it was established that the German submarines worked in pairs about thirty miles apart, and he hazarded his opinion as to how long they would work together before being relieved. He was given scope by Captain "D" to prove his suppositions and fully justified his findings. We would proceed and always used all the depth charges that we carried on legitimate targets. How many submarines we damaged or sunk is purely conjectural, but we certainly gave plenty of them some jolts. We would often see oil, but this was not considered proof of damage. On very rare occasions we would pick up some of the fish that were stunned or dead on the surface after one of these attacks.

We had a "Cheese", a portable hydrophone, and one of our stunts was to proceed to full speed to a position where a submarine was known to have dived. We would stop engines, fans, and everything that could make a sound, on arrival at the horizon of the position and drift over the target. The heat inboard would consequently be stifling and, of course, we would be a sitting target. We would lower our hydrophone overboard, listen intently, and set special lookouts all round so that all parts of the sea within visual range were constantly under surveillance. The odds on a submarine seeing us, compared with our chance of seeing them, were, of course, greatly in the submarine's favour. The location was usually in the Northern area of the Bay of Biscay and we would lay, rolling very severely, for several hours, listening on the "cheese" and keeping absolutely quiet.

On one occasion a coastal watcher, a patrol man ashore, sighted a submarine alongside the rocks in Mounts Bay. He reported it to the C-in-C Plymouth and we were despatched to the area. We arrived very quickly and saw a track of oil, stretching from the point indicated by the rocks to the middle of the Bay. We detonated our explosive paravanes and several depth charges at this location and lots of oil and bubbles were observed.

We left as soon as a trawler arrived to keep watch on the area and heard from her that oil and bubbles were still rising after twenty-four hours but water was too deep and the bottom too awkward for grappling. However, we did not claim a submarine kill. Some members of our crew were disappointed as we repeatedly had such experiences but never made a claim. When claims were allowed, ships concerned were awarded £1,000 for division among the crew.

On another occasion we were, picking up survivors of a "Q" ship (Mystery Ship), which had been abandoned by all but her captain. The location was just South of the Scilly Isles. I was standing at the entrance of my office and looking at the boat alongside full of survivors. We were rolling considerably. There was a heavy, glassy swell and the moonlight was very bright. Suddenly there appeared the track of a torpedo coming straight for us under the boat alongside. Our Captain immediately rang for full ahead and put his helm hard over. We appeared to start moving just as the torpedo struck us with a severe jar. I had out all our Confidential Books into my kit bag for dumping into the sea and informed the Bridge accordingly. It was a few moments before I realised that there was no explosion and that we were heeled over as the result of gathering speed with the helm hard over. We went to the end of the torpedo track and dropped lots of depth charges, but again we did not know with what success, if any, as we continued our job of arranging to escort the "Q" ship. She was heeled right over and looked as if she was about to sink, but she somehow continued to float. Her captain was the only one remaining on board. He would disappear at times, then return and perch on the bridge rail, and assure us that the shoring was OK and the bulkhead was holding. We eventually got under way, proceeding very slowly, on course for Falmouth. However, the Captain of the "Mystery Ship" signified that he would much prefer to go on to Plymouth and to Plymouth we went. The ship got there all right in spite of her precarious condition. A quick survey showed that we had quite a dent about eighteen inches above our keel. It was supposed that the reason that the torpedo did not explode was that it was fired from too close a range. At any rate the detonator was not active. The captain of the "Q" ship earned full marks for remaining with his ship.

On another occasion we came across survivors in an open boat. They were not very distressed, as they had only been in the boat a couple of days. At first we could not make out their nationality as they did not speak in any language that we could understand. We were greatly surprised when our "Hostilities Only" Signaller came down and conversed with them fluently. He explained that they spoke only in Gaelic and that they came from the Outer Hebrides. Their ship was sunk by a German submarine named Neotsfield or Neotsfiord. This Signaller, Donald McDonald I think his name was, had proven himself to be a very valuable member of our crew. He was Chief of his Clan in Scotland, had been a school teacher in Glasgow, and was an accomplished seaman, having served long periods at sea on fishing vessels. He was great on the wheel under the worst conditions.

We had quite a tough, capable crew, one of the most outstanding being a two-badged Able Seaman named Mercer. He had been in the Merchant Service during his Royal Fleet Reserve time and was a second mate there. We had a very strenuous life with no respite.

We would be at sea for as long as our fuel would hold out and would then come in only as far as Drake's Island near the Breakwater in Plymouth Sound, where we would refuel, receive mail, etcetera, and proceed again. The only time we eased up was when we had to enter harbour for boiler cleaning. As I remarked before, we did not turn in at sea. This strain was very severe and the very rare occasions when we could get a temporary respite, as, for instance, when we called at Rathmullen for fuel and had permission to land for a couple of hours and play football, were very much appreciated.

We laid at Rathmullen on one occasion, doing some essential repairs in the Engine Room, and Able Seaman Mercer was the Quartermaster with the middle watch (midnight to 4 a.m.). We had a 4" gun installed on a platform about two-thirds of the distance to the stern from forward, a suitable weapon for bringing down Zeppelins en route to and from Britain across the North Sea. This platform was circular and protruded almost to the ship's side. It had a handle which turned a worm gear connection for revolving the platform. On this particular occasion the nut which held the handle on its shaft was missing. Mercer was doing his rounds on the middle watch and on his way past the platform he grabbed the handle which was protruding towards the ship's side. It came away and unbalanced him. He fell overboard and managed to swim to the gangway. He hurriedly got into something dry and made an entry in the log "Lost overboard by accident, one iron handle, part of gun platform". Then, in much smaller writing, he made a further entry "Nearly lost overboard but recovered, one Able Seaman Mercer". He did not inform anyone of what had happened and when the entry in the log was seen by No. 1 in the morning, he was called aft to explain why he had not informed the officers about the incident. Mercer got more and more fed up. On one occasion when we were given permission to go ashore for football, he told me that he was going to desert, so that he would get ninety days detention and leave the ship. He figured that he had nothing to lose and that life in Detention Camp would be no worse than our conditions on board. I felt a bit guilty, being in his confidence. He accomplished what he set out to do.

One day, while we were hunting submarines in bad weather conditions, one of our Stokers lost his mental control and went berserk down below. He was run down by seasickness and our general conditions of living, with very few proper meals. When he had been overcome and brought up on deck, he was fastened to a steel stanchion on our mess deck for the remainder of the patrol. It was awful to see him with his staring eyes and the vomit around him, and the associated smell had to be endured every time one went to the mess. There was no comfort whatever in the mess. There were clothes lockers under the wooden seating by the ship's sides with boot racks at the sides and wooden mess tables. There was a stove between the two messes, the Stokers occupying the Starboard side mess and the remainder, including the Signal and W/T staff; occupying the Port side mess. There were stanchions between the two messes but no partition. Everything that could possibly break loose was sloshing around on the deck and under bad weather conditions no attempt could be made to clean up. An occasional dollop of sea water would find its way over the sill and down the hatchway. The stench was horrible. I was relatively lucky, having the W/T Office to spend my time in.

We had a particularly interesting experience on one occasion when I received an SOS which I knew came from a "Q" ship. When a "Mystery Ship" was attacked by a submarine, it would, of course, act in every way like an ordinary merchantman and send its SOS. When shelled, the crew would apparently abandon ship. If the submarine appeared to be suspicious, there would be an apparent panic and they could send what appeared to be their final survivors away. Then, when the enemy came within "Certainty" range, camouflaging flaps would be cleared away and the guns, thus exposed, would destroy him. This, of course, was a very hazardous procedure.

On this occasion, however, all the drills were carried out and the final period was reached, with the ship on fire and the deck above the 4" magazine getting hotter and hotter from the fire below. The guns' crew were on this deck and remained there, in their extreme devotion to duty, until the magazine blew up. This short-circuited the control system and the subsequent exposure showed her for what she was, although it appeared that the submarine knew in any case. She then made further calls for help, to which we responded. We arrived on the scene and dropped depth charges where the submarine was last seen and proceeded to rescue those remaining on board. Her stern was awash and gradually going under. Only her bow was protruding from the sea and the weather was quite bad. Our Captain showed his aptitude for splendid seamanship. He circled close by to cause a temporary smoothness, at the same time lowering a whaler and sending it across to fetch the wounded. This was accomplished by a very fine effort by all concerned. Two men died after arriving on board. By the way, the Captain of the guns' crew was elected to wear the V.C. that was given to the ship on this occasion. I saw him at Whale Island on a later occasion, where he had a convenient finishing-up job for his service.

However, to finish the episode. We then realised that it would be impossible to send the boat again and our Captain, quite coolly and deliberately, put his port bow against the starboard bow of the "Q" Boat, keeping one engine going ahead and the other astern to prevent us from fouling the "Q" Boat's stern, which was under water. This was an extremely hazardous procedure with the sea throwing us about violently. Every time our bows collided, one or more survivors from the "Mystery Ship" would slide down lines and be grabbed by men on our forecastle. This manoeuvre continued till the last one made his way on board. He was Captain Gordon Campbell, the "Mystery V.C." He burned his hand on the line on his way down. He spent a period in company with our officers, making sure that all was done that was possible for his survivors and then came into the W/T Office, where he commended me for the part that I had played, but I had only done my normal job- This action took place near Ushant. We took the survivors to Plymouth and continued our normal antisubmarine warfare.

We were rather badly damaged in the episode with the "DUNRAVEN CASTLE", which was the "Mystery Ship", and soon afterwards our ship was ordered to proceed to Newport, Monmouthshire, to refit. Our Captain was relieved and proceeded to Admiralty for new appointment. I believe our flotilla had lost nine of its original twenty boats by this time.

I refer later in this book to our Captain's subsequent most gallant action, through which he was awarded the V.C., in the 1939-1945 hostilities.

I was sent to Portsmouth for a Petty Officer Telegraphist course. It transpired that there were only two Leading Telegraphists on this course, the remainder of the class having been made Petty Officers by captain's recommendations and all of them coming from big ships of the Grand Fleet. To cut a long story short, the two of us, Ginger Somers and I, came top of the class. I contributed my share of griping about the difficulty of comparing experiences such as ours with those in the Grand Fleet, presumably swinging round their buoys at Rosyth or Invergordon, while we were continuously at sea on ships of the "I" Cruiser Force, such as "EUROPA", "AMPHITRITE", and "ARGONAUT", and afterwards on destroyer service, which was pretty close to the limit of endurance in those days. On the one hand, these chaps had been made Petty Officers on captain's recommendation with seniority around two years and two months in most cases, while I was eventually made a Petty Officer with over three years' seniority as a Leading Telegraphist and recommendations of "Exceptional" for ability for the past two years running. I subsequently found myself to be the only Leading Telegraphist qualified for Petty Officer Telegraphist in the Grand Fleet, where I served for the remainder of the hostilities. Such experiences put me off the Navy, career-wise, and I decided to get out as soon as the opportunity arose.

I left the "CHRISTOPHER" on the 2nd of November, 1917, and my next draft, after the course at Portsmouth, was to H.M.S. Vittoria on the 24th of January, 1918. I stood by her completion at Swan and Hunter's at Wallsend on Tyne and was rated Petty Officer Telegraphist on her on the 1st of June, 1918. She was a destroyer minelayer leader with tramways fore and aft on both sides for running out mines. We did several escort duty trips. One day we were proceeding slowly in the vicinity of the mouth of the River Tyne in company with H.M.S. Vancouver, who was ahead of us, when she appeared to slacken speed without warning. Our bow sliced into her stern, not quite dislodging a depth charge. We were expecting to escort some shipping bound for Russia. However, we went into the yard where she was built, Swan and Hunter's and had a couple of days' local leave. This was considered to be remarkably good luck. Later on, at Scapa Flow, the "VANCOUVER" and "WESSEX" had a terrible collision during exercises and there was severe loss of life. H.M.S. Vittoria was subsequently sunk in the Baltic near the Gulf of Finland and went down very fast. However, I was not on her then.

I was transferred to H.M.S. Grenville, a three-funnelled destroyer leader, on the 20th of August, 1918. We were the leader of a half flotilla and one of our occasional jobs was to act as screen for the United States Battle Squadron. We did not relish the job very much as they had not had the same working-up exercises as our ships and did not keep as good formation. Sometimes, after passing through extensive fog banks in the North Sea, they would emerge out of sight of each other and we would proceed to round them up like sheep. Of course, there was no radar then to assist in keeping formation.

The flagship of the United States Battle Squadron gave us a radiotelephone transmitter receiver, complete with dynamotors, which I put on the bulkhead in our Chart Room. Radio telephone communication had been tried out in the Royal Navy in 1910 but discarded on the grounds that too many errors would be made when listening to speech and that morse was more reliable, especially over distances and when contending with bad atmospheric conditions. Our Captain, Commander Knowles, was quite intrigued by this outfit and used it when we carried out daily manoeuvring exercises by W/T in harbour. He would give the signals by voice and I would write down the acknowledgements as they were made by the other ships of the flotilla. The flag ship, H.M.S. Queen Elizabeth, made tentative suggestions that they should have the receiver, but our Captain did not let it go.

One of our most important jobs while based at South Queensferry was the "Triangular Patrol" — Firth of Forth, Jutland, then North or South as the case might be and back across. This patrol was permanently maintained and was carried out by either a cruiser or a destroyer leader and two destroyers.

The influenza epidemic hit us very hard. On one of these patrols, six of my staff of ten were incapacitated; two of them developed pleurisy and were sent to hospital. This meant a pretty arduous period for the remainder of us, manning two offices continuously. Perhaps it was as well for us that the Germans did not know what a state we were in.

One of the most thrilling and pleasant episodes was the carrying out of an air raid on Tondern in Schleswig Holstein, which was known to be a munitions arsenal. The requirement for a successful raid was good weather and we proceeded with the aircraft carrier "FURIOUS", our flotilla in screening formation. The planes took off and then the fun started. German submarines converged on the position and tried to get into position for attacking. We had davits rigged and special instructions to hook on to the ring bolt attached to the engine of any plane which ditched near us and to save the pilot and the engine, letting the rest go. I believe that those pilots who managed the "land" on the "FURIOUS" were given a bounty of five pounds. The excitement was intense and guns and depth charges were creating a splendid racket. After a little while we reformed and, with paravanes operating to clear us of mines, we returned to Rosyth. I believe that four of our planes were missing after that raid but it was considered to be a success.

We often proceeded on special patrols accompanying big ships, for whom we acted as screens. Sometimes we would have a little excitement, going in at full speed and firing on some shipping just visible on the horizon. Life was a lot more relaxed under Grand Fleet conditions than it had been when working out of Plymouth.

The end of the hostilities came at last. We were laying in the Pens at South Queensferry when we heard of the Armistice. We celebrated, of course, and more particularly as we were due to sail in the morning for the "Triangular Patrol". Imagine our chagrin when we were told to proceed in the usual way as some German ships, especially their submarines, would not know that the Armistice was signed. We were very sorry for ourselves, but the general elation soon wore through as we recovered our sobriety and carried on.

"GRENVILLE" took a proud part in the Armistice proceedings. It was an exciting day when we proceeded well out into the North Sea and eventually sighted the German Fleet. We could not believe that these ships would be handed over without a final effort on their part to destroy us. As it turned out, however, they came sailing in between our lines and we carried out inspections, the heads of departments going on board the respective ships of the enemy formations and inspecting the equipment to see that the terms of the Armistice were carried out, such as removing the breaches of the guns and the torpedoes out of the tubes. I went on board the corresponding destroyer, examined the wiring from the power supplies, checked their transmitting and receiving equipment, and I was quite surprised by the evident pleasure and relief shown by their personnel. One gave me a German library book as a souvenir. We led their destroyers in and, after a special inspection by the King and Prince of Wales, for which we fell in on shore, we proceeded to Scapa Flow to stand guard over the ships of the German Fleet, which were assembled there. It was soon rumoured that, to avoid squabbles over the division of the German naval vessels amongst the Allies, they would be allowed to scuttle themselves. We were more and more fed up with the approach of Christmas and with nothing happening. The Germans were having too good a time, with plenty of food and no sea time, and they did not do their scuttling act till our relief destroyers were on the job. We went South and proceeded on leave, arriving just after Christmas and New Year.

I had met the young lady, who has been a wonderful wife to me ever since, a little while before, but we decided that we would not get married until hostilities ceased, as I did not like the idea of leaving a widow behind and the chances were pretty good. We were married on the 2nd of January, 1919, at St. John's Church, East Hill, Wandsworth Common. My wife's maiden name was Drake, surely a name with a resounding Naval flavour. She was managing a business near East Hill, Wandsworth Common, during the latter part of the war. She had only two brothers of military age and they were both killed in France. My step-brother, the son of my mother by her first husband, named Edward Vaughan Llewhelin, was killed on the Somme. My boyhood friends were all gone and I decided to try to settle down and get ashore as soon as possible. It appeared that the Navy would be reduced to a mere token force and consequently it held no allure as a career.

"GRENVILLE" proceeded to Harwich, where we operated as escort, fetching German submarines in as they completed building or refitting in the German yards. For a while, I had rooms at Parkestone near Harwich. To augment the rationing, which was severe ashore, I would take butter, raisins, sultanas, tea, etcetera, ashore with my football gear. This made life a lot more pleasant all round.

Incidentally, the radio telephone outfit, which we had received when acting as screen for the United States Battle Squadron, was still on board but one of the valves had burned out. There was a United States destroyer in the harbour, so I took our dinghy and went on board to try to get a replacement.

When I returned I was put in the "Report" by the Gunner "T", who was the Officer of the Watch, the charge being that I went on board a foreign ship, contrary to law. I was eventually let off with a "Reprimand".

I should mention that I was recommended in "HECLA" for Warrant Telegraphist rank on the 9th of July, 1919.

The old " GRENVILL" proceeded to Queenstown, where we were reduced to nucleus crew. As far as W/T was concerned, we became busier than ever as we embarked Admiral Tupper and his staff without any telegraphist ratings. We had a hectic time as our gear was strained to the utmost, being in constant use day and night with the Admiral's business. Our destroyer flew the flag of the Commander-in-Chief, Western Approaches. We circumnavigated Ireland, calling at practically every place on the coast, and experienced very bad weather, especially at times off the West coast. I remember that we had to rob other ships that happened to be in harbour when we arrived of their "essential spares" in order to keep our apparatus working. I had made an arrangement with our Captain, by special request, that the W/T staff would take a whaler away whenever we arrived in harbour to give the staff some fresh air and get away for a few hours.

Incidentally, there was a standing order that all junior ratings had to be given five hours' instruction per day. This I tried to carry out in conjunction with the boat sailing. I particularly relish the memory of proceeding up the river inland from Galway in Galway Bay, the weather being fine, where we enjoyed swimming, sailing and, in a way, our period of instruction. This instruction was as good for me, the teacher, as for the others.

At first, my staff did not like this routine, as it was their habit, when they came off watch, to get their heads down. The air in the office was kept fairly good but on the mess deck it was pretty fuggy and generally W/T ratings looked pretty seedy. After a little hostility at first, however, our staff began to look and feel pretty good. They were really a fine bunch. I met some of them much later and will recall these meetings later in this book.

## CHAPTER 7

### Irish Waters and Baltic Service (1919-1921)

I should recall an episode that took place in Ireland when I was there on "GRENVILLE". We played a special invitation game of football at Portobello Barracks, Dublin, against the Army team which had won the Army Command Championship in Ireland. This team, was the 5th Royal Bucks if I remember right. To make it a fair game they dropped two of their star players. We duly took the field with all the Army chaps yelling for us and everything went our way and we won 5-1. This was not really representative of the difference between us. There were celebrations afterwards in the Sergeants ' Mess and the Guinness flowed pretty freely. Our coxswain was in my company and really swallowed a mite too much. We eventually left in time to catch the last tram back to Kingstown. I decided that we would board it at the next stop to the last in the line, as it was quieter and the Coxswain was a little unsteady. All of a sudden, gunfire and general pandemonium broke out at the end of the line, where someone got killed in a fish shop. The tram took off and the driver's whole attention was focussed on getting as far from the area as he could in the least possible time, so he would not stop to let us on. The Coxswain made a vain effort to get aboard as the tram passed us, but he just could not make it. He turned in a circle and fell backwards on the cobblestone roadway, striking the back of his head and knocking himself out cold.

I was in a fix and did not know the extent of his injury. I managed to grab the bridle of a horse attached to a jaunting car just as the driver was trying to leave the area, as the tram had done. I then bullied him into assisting me to lift the Coxswain onto his rig. I got alongside him, the seating being fore and aft, and supported him with his busted head on my shoulder. The blood ran through my clothing and I was in a mess. We arrived at Kingstown just as the Coxswain came round and I made a semaphore message from under a light on the G.W.Rly jetty for our dinghy, which duly arrived and took us aboard. We were really a few minutes adrift but no one noticed. I took the Coxswain into my office and shaved around and dressed the wound. I thought that that was the end of the matter, but some months later the Coxswain went ashore in Northern Spain from another destroyer, got himself drunk, and was adrift with the provisions that he had been sent for. In the subsequent disciplinary trial things looked very bad for him and he was desperate as, with only a couple of years to go, it looked as if he might be disgraced and consequently might lose the better part of his pension. He then pleaded that he suffered incapacity as the result of the incident in Dublin that I have just described and my actions in that affair were alluded to. Very fortunately for me, the whole thing was dropped, the Coxswain being pensioned off right away and I was very thankful indeed.

"GRENVILLE" eventually proceeded to Devonport, where most of our personnel were turned over to another destroyer leader, H.M.S. Douglas. She was one of the Clan Class, built for 36 ½ knots, with heavy 4.7" guns mounted on the centre line and she was in all respects a very fine vessel.

We eventually sailed from the Firth of Forth for the Baltic, where our duty was to carry out orders in connection with the decision to assist in the formation of the Estonian, Latvian and Lithuanian Republics. Our bases were mainly at Reval (now Tallinn), Libau, the entrance port for Riga, and Copenhagen, through which fine port we all passed. It is hard to realize that Riga had been the great wheat exporting port with a steady market in Britain just prior to the 1914- 1918 war.

We had a particularly bad crossing with our half flotilla on our way to Copenhagen from Rosyth. We lost six men washed overboard amongst the destroyers in company. "STURDY" lost part of her bridge structure and two Signalmen. The North Sea can be particularly vicious at times, especially for craft like those destroyers.

On arrival at Reval we settled down to a routine of communications via Ipswich to Admiralty and, of course, the normal administrative communications with the other vessels under our command. We occasionally proceeded along the Gulf of Finland to Narva Bay and fired the occasional shell inland. This was the geographical limit of Estonia. We carried out this occasional patrol, even after the ice had formed, following in the wake of an icebreaker on these occasions. We would proceed to Libau at times and I remember the pathetic state that the people there were in. We gave our meals to those within reach when we could and had strict orders for the greater part of the time that we were there not to go to the town on account of epidemic conditions. However, at Reval I went ashore as often as I could and spent many evenings at the Grand Marina on the open air ice rink with a band playing and kiosks serving tea, Russian-style. The money exchange was greatly in our favour and consequently a good run ashore could be had for less than a shilling.

I became friendly with a Captain in the Estonian Army and was teaching him a little English, mostly out of a Gamages sports catalogue. He in turn took an interest in my skating and we would go to his home and have a good hot fruit punch before I returned on board. The place was under Martial Law and we had to be on board by ten thirty p.m. I attended dinner at his home once in a while. His was obviously an upper class society and meals were quite a formal affair, most deliciously arranged. On one occasion I was at the rink with my friend and his wife when a lady skater performed a special show, which was very much appreciated by all in attendance. It transpired that she used to perform for the Tsar in Moscow and that she had escaped from the Bolsheviks. She was an acquaintance of my friend's wife and, after some conversation that I did not understand, I was invited to be her partner on the ice. This was an experience that I will never forget. I was only a mediocre performer, but in her hands I was two-stepping, waltzing and doing all sorts of wonderful things. Our Captain was looking on and I think that he would have liked to claim her attention, but I was the only one specially privileged.

We stayed on this special duty throughout the winter. The weather could be rather bad in the Baltic at times. I remember the destroyer "TENEDOS" putting on a bit of a spurt to catch up and get into station, when she hit a larger than usual bit of ice and broke both her masts. The remarkable thing was that no one was hurt. When we left, to return via Copenhagen to Britain, I left my skates attached to boots at my friend's house at Reval.

During the time that we were in those waters we often received news over the air, transmitted by the Russians in English, which we were ordered to destroy and on no account to give to the crew. This was usually innocuous propaganda.

Please bear with me while I digress a little. As an overall picture at the time, it seemed that we mostly agreed that the Russians were forced to revolt under the Tsarist regime and almost everyone in Britain appeared to sympathise with them. When the revolt took place, however, the horrible atrocities that accompanied the overthrow of authority and the declared objectives of Communism caused a reversal of feeling and the Russians have been boycotted ever since. We have to progress a long way yet before we reach the point where "The meek shall inherit the Earth". I sometimes think that this apparently impossible prophecy may be brought about by economic development of all the peoples on Earth in one World Court with equal representation by all and for all. It will never come about through good will. Human nature is not made that way and the very way in which politicians are developed precludes it. If a group of people meet to appoint one of their members to a position of power, such as a candidacy for Parliament, it is quite obvious that the least meek individual, the hardest-working, strongest-talking, most able and fearlessly forceful type, will be selected, even if it is for an ecclesiastical job. One of the most dangerous types is the one with the "gift of the gab", without humane qualities, referred to by Mr. Gladstone as "being inebriated by the exuberance of his own verbosity". If he or she gets in, in company with others, all to some extent similar, then, in turn, a selected few of these people will meet similar types from other countries and no one must show the slightest sign of weakness. These various groups of people have brought the Earth to its present impasse and it seems impossible that it can be otherwise with the Earth's economy in its present state.

## CHAPTER 8

### Interlude On A Light Cruiser (1921-1922)

Now to resume my story. H.M.S. Douglas returned to Britain and I went to Chatham Barracks on the 7th of April, 1921. During the period of the Railway Strike, I was used as a substitute Writer, working on the mobilisation that took place, to substitute crews on trains with Engine Room Artificers and other Engine Room ratings and to fill positions essential for running the affairs of the country.

On the 6th of October, 1921, I joined H.M.S. Danae, a light cruiser, and found myself the junior Petty Officer Telegraphist. We had a W/T complement of a Chief Petty Officer Telegraphist, two Petty Officer Telegraphists, and about thirty other ratings. We had seven W/T outfits in five offices. Previous to the arrival of the Chief and myself, there was only one Petty Officer Telegraphist heading the staff. We took part in various exercises and eventually went on a cruise, via Gibraltar, to Palma, Majorca and back, calling at Lisbon, Portugal, and La Rochelle on the Bay of Biscay coast of France. I played football at Gibraltar, where we were beaten by the local "rock scorpion" team. I also played at Palma, where we just held our own. Palma was a wonderful place for our boys to relax. It struck me as being more amoral than immoral and the sailors had a good time. I would think that a large part of the population were the descendants of the men who occupied the Balearic Islands during Lord Nelson's blockade of the South coast of France, when they were used as a base.

Our visit to Lisbon was a very interesting one. From a sailor's point of view, crossing the bar at the entrance of the river is the experience to remember under certain weather conditions. The glassy swirl of the water at times, with the almost uncontrollable effect of the current on the rudder is very remarkable there. Lisbon is a fine city with something of interest for everyone.

Our voyage, in company with another cruiser of our squadron, through the Bay of Biscay, was a rough one on our way to our respective ports on the Bay of Biscay coast. The other ship proceeded to St. Nazaire and we went to La Rochelle, but we were hove to for several hours in a real Bay of Biscay storm. We arrived at La Rochelle, however, where we found that we just had room to enter through the locks to the inner basin. Imagine our surprise when we called at the Inn by the entrance to the wharfage area, to find that the landlord was an ex- Chief Petty Officer from the Royal Navy. He was very glad to see us and we learned that we were the first British man of war to be seen at La Rochelle since Nelson's days. We went on long distance runs and got to know the roads nearby. Then we played three football games in one day, to accommodate the local boys. It was arranged that we would give a "The Dansant" from 2 P.M. to 6 P.M. one day and we had eight hundred invitation cards printed in French and English. I was given the job of procuring these cards. We were then instructed to each get a partner for the tea dance and the idea of having eight hundred cards was that we should present one to the person invited and retain one as a souvenir.

I went into the town of La Rochelle, which was a few miles from where we lay and I was most impressed by the mode of travel. The tram went along without any apparent connection to electrical circuitry. I was puzzled till we got to the town and I discovered that the power was supplied by compressed air. It was perfect, the ride was smooth, the speed quite good, and of course there was no grinding or smell. The town itself was very interesting and the permanent covering of the sidewalks by overhead structure standing out from second-story height made shopping under any weather conditions quite a pleasant affair. I found a dentist and had a wisdom tooth extracted by him. He told me of some of his experiences during the trench warfare and especially of his great regard for British Tommies. I gave him my invitation to the dance and he was delighted.

The dance was a great success. Practically every man on board had found a suitable girl to whom he had presented his invitation, but we had a problem as they all turned up with chaperones. There was no sufficient room on board to accommodate them as well, so we got our mess stools out on the jetty and detailed Boys to take cigarettes and cakes to them and take them on board on tours of inspection. The officers' toilets were converted into the powder room and a big sign marked "Dames" was displayed over the doorway, which was not visible from the dancing space but was in view on the port side, a little way forward. I must allude to one peculiar incident. One of our Able Seamen, a big, healthy type, was dancing with a very nice-looking girl and it became obvious that she was becoming more and more embarrassed, as she was talking to him in some sort of distress. I sidled up behind to try to solve the problem, when it became obvious that the poor girl wanted to go to the cloak room. Her escort did not know any French but was saying the only thing that he could recollect in that language, in a manner garbled beyond description, which was the notice displayed on the South Eastern and Chatham Railway carriages, "Ne pas se pencher au dehors". This was familiar to all Chatham Division fellows and accompanied the English version "Do not put your head out of the window". What made our gallant sailor say this I could not understand but it certainly seemed to me to be very funny. Our period of a few days at La Rochelle was all too short. Eight of our crew obtained permission to get married to their girl friends and the Captain gave them a very practical assistance by giving the girls their fares to London and arranging that they would be reunited there as soon as possible after our arrival at Chatham.

We next proceeded to Ireland and I received notice that my request for release had been granted. I had backed up my application with (a) a guarantee of employment, (b) very good conduct and (c) a letter from my doctor recommending my release, as my wife's health would otherwise suffer. This gave me the maximum points and worked the oracle.

One peculiar incident stands out in my mind regarding this period. We intercepted an American merchant ship, the S.S. Seattle Spirit off Southern Ireland and confiscated some forty barrels marked "Armour's Choice Neutral Lard", which contained ammunition being run into Ireland. I suppose this would be part of a very profitable venture for some outfit, who placed the acquisition of dollars and cents above ethics.

During the whole of my experiences in Ireland I could never understand the situation clearly. I had good friends on both sides. The only statements that came fairly frequently were complaints about "Absentee Landlords" and what Cromwell had done. I would, of course, point out that people in Britain had, pro rata, as many absentee landlords and had certainly suffered as much from Cromwell as those in Ireland. What are we all but a hotch-potch of human beings, with origins traceable for maybe a few hundred years but obviously all with as long a line of ancestors as each other. For instance, my wife's mother was Irish. My ancestors were Dutch; they came to Britain with William of Orange and received a land grant in Wiltshire, which, by the way, I have never investigated. My mother's first husband was Welsh. This admixture is going on constantly amongst the whole population. To my way of thinking, the political division of such a small geographical area as that occupied by England, Scotland, Wales and Ireland seems futile.

Our final voyage on H.M.S. Danae was from Ireland to Fishguard, where we disembarked some prisoners, and those granted their discharges were allowed to proceed to their homes. On "DANAЕ" the Chief Petty Officer Telegraphist and both of us Petty Officer Telegraphists were released from the Royal Navy. The other Petty Officer Telegraphist eventually headed up the Special Products Department at E.M.I.

There is an unique Association, which meets in London, usually on the second Saturday in November each year, called "The 1914-1918 Royal Naval Telegraphists Association". To qualify for membership one must have been an Active Service telegraphist rating or above in that branch on the declaration of the Armistice, 1918. I have attended whenever I could and have been very impressed by those grand pioneers of the art, who have practically all made successes of their lives. There are usually upwards of a hundred members in attendance. A feature of the meeting is the "Roll Call", when each man says his name, his last ship and when he left. There are some pretty high-ranking ex-officers among them and guests can be entertained, provided arrangements are made. The Secretary, ever since the inauguration as far as I know, has been Mr. C.E. Bottle, who left the Navy at about the same time as I did and subsequently was Engineer in Charge, B.B.C. Broadcasting House. He is now retired and living in Ewell, Surrey. He distinguished himself during the late war.

## CHAPTER 9

### Introduction to Canada (1922-1923)

I had a quick look around and came to the conclusion that I should go somewhere where I could start from scratch and compete for what there was without anything but my general electrical and radio knowledge as a background. Within two weeks of leaving the Navy I was in Winnipeg, Manitoba, Canada, together with my wife and daughter. My daughter was then two-and-a-half years old. The reason that I selected Winnipeg was that it was so far from the sea that I knew that I would have to find work ashore and could not just join a ship if things got tough.

I looked around Winnipeg for some suitable work and met Mr. Payne, who was Telegraph Superintendent for the C.P.R. I went into a telegraph office, where I learnt to operate the American Morse code. I almost obtained a very good job in connection with manning a repeater station for the Winnipeg Grain Exchange because of my ability to use a Wheatstone Bridge, but my speed at American Morse had not then quite reached the standard required.

However, I eventually went to the Northern Construction Company and had an interview with Mr. Swenson, the Electrical Engineer. I showed him my papers and explained myself to him, indicating that I would much rather start at a low level than somewhere high up, as I wanted to consolidate my position. He was usually meeting people of the opposite inclinations. I was employed as an electrician's helper and sent to Great Falls, Manitoba, about eighty miles from Winnipeg, the last few miles being a spur line, maintained by the Northern Construction Company. I was given a bunk in a bunk house occupied by non-English-speaking Russians, mostly Ukrainians, big, strong chaps and good manual labourers. At the end of my first day's work I showed myself willing by putting some logs in the big wood-burning stove before I turned in. The other inmates of the bunkhouse evidently thought that a brand new "Limey" was someone to be made fun of. At about 4 A.M. I was awakened and told by signs to make up the fire again and I could hear the chuckles going on and knew that this was some sort of a bullying effort. Well, I got out of the bunk and told them where to go. However, they did not understand English but only knew that I objected. Then there was a tussle which finished up by my slamming my tormentor, who fell against the stove, burning himself somewhat on it. The next morning I was sent for by the Manager. I thought that I was going to be fired but instead was patted on the back by our tough Yankee foreman and commended for my action in the bunkhouse. He remarked that "This Limey's OK. He showed them". He then explained to the Manager that he had seen me showing the electrician, whose helper I was, a mistake in a blue print regarding an outlet at the end of some conduit, which showed the termination on the wrong side of a wall. This led to a further probing as to my abilities and to their decision to give me a helper and make me a journeyman electrician, provided that I did a test job, that of laying the conduit runs for the operating gallery, prior to the pouring of cement.

I did the job OK and was now bunked with English-speaking workers and was advanced in pay- from thirty-five cents an hour to sixty cents an hour.

This was a typical Canadian construction camp. We worked a maximum of ten hours a day, seven days a week, and we could put in all the overtime we liked at straight-time pay.

These camps afford a good chance for the ordinary man to accumulate a little capital, provided that he is physically and mentally fit enough. It was tough enough with spells of thirty to thirty-five degrees below zero at times. I was surprised to see concrete being poured, with canvas covering, in sub-zero weather. A head of steam was maintained for a period before the concrete set. This job was being done by contract, so, of course, everyone was being pushed to the limit. The first phase was the building of the Power House; the 48,000 H.P. vertical generator was assembled concurrently; afterwards, the connection to the grid system was completed, connecting it with Winnipeg, some eighty miles away. I found that my original training stood me in good stead and I soon learned how to cope with all the cables from the smallest up to the million circular mil stuff capable of handling a thousand amperes, which we used adjacent to the generator.

This was strictly a man's world. The only women on the camp site were Icelanders, who were employed in the kitchens and served the grub up. They were a fine-looking bunch and were under the most strict control, so that there was no mixing with the workmen at all.

Next, I returned to Winnipeg and eventually met Mr. Brabant, The Hudson's Bay Company Fur Trade Commissioner. He suggested that I might be sent to Athabaska, where I would be trained to use a dog team in the winter and drive a launch in the summer on Hudson's Bay Company business. He assured me that my daughter would be looked after when she attained school age. This appealed to me very much, but it was not to be. I met Captain Ross of the Ross Navigation Company, which operated in the waterways north of Le Pas and helped him to his selection of a radio telephone outfit, a five-hundred-watt job. He intimated that I could go along with this and set up a communications network. I also met a Canadian mining engineer on leave from Mexico, who thought that I would do well down there. At the time there was quite a stir created by the action of the Manitoba Government in discontinuing the licenses given to the two major newspapers to operate radio broadcasting stations and creating a Government monopoly in radio broadcasting, which was to be run under the aegis of the Manitoba Government Telephones. There were practically no radio-trained personnel around Winnipeg available at that time, so a Mr. Coates and myself had a good chance of getting the main job at the station. We tossed and I lost. Mr. Coates already had his goods at the station, booked for Chicago. The next thing that happened was that a Mr. Hawkins, the Western Superintendent of the Canadian Marconi Company, showed up in Mr. Brabant's office to arrange to put W/T apparatus on the Hudson's Bay Company three-masted schooner, the "LADY KINDERSLEY", laying at Vancouver. This was very desirable for use during her annual voyage to the Western Arctic and the Canadian Government was interested in knowing the effect of the Aurora Borealis on radio communications.

## CHAPTER 10

### A Three-masted Schooner in the Arctic (1923)

The Hudson's Bay Company paid my fare to the West Coast. I went to Victoria and sat for my Canadian First Class Certificate of Proficiency in Radio there. I then joined the auxiliary schooner "LADY KINDERSLEY" and the very thing happened which I went to Winnipeg to avoid. Here I was on a ship in spite of everything. However, she was quite interesting. She was built at Vancouver with oak beams and Australian gum wood sheathing around the bows. She was fitted with a small auxiliary engine originally made for a pumping station during the war, I was told. This engine was a semi-diesel, made by Beardmore, which would propel the ship at about five to six knots in calm water. Experiments were being conducted by the Engineer to try to start the engine by electric power from heavy-duty batteries. He achieved no success in this endeavour. The ridiculous thing about it all appeared to me to be the fact that there was no hand-start engine for charging a compressor. She depended entirely upon compressed air for starting and there was a danger of using up all the compressed air bottles while backing and filling in the ice, and consequently having to rely upon sails only. She was built on the lines of an icebreaker and therefore could not be expected to sail very well. My apparatus comprised a two-kilowatt synchronous-gap transmitter and a crystal detector with a tuner attached of very limited frequency range and of fixed tuning characteristics. The aerial was strung between the three masts, attached to yards above the sail on each mast.

We proceeded from Vancouver to Seattle, Washington, for fuel and then, after completing loading at Vancouver and on Vancouver Island, we set out via the Inland Waterway and south of the Queen Charlotte Islands, getting away from land as quickly as possible. Using our sails, we headed for the Aleutians. We had no sooner started rolling when the aerial broke at one of the soldered connections. I went aloft and fixed it and eventually made loops round all five points in the aerial rig which had been soldered, as every one of these broke in the course of the voyage. Our complement included Captain Foellmer, a German Dane, who had been thirty-five years under sail on the Pacific; the First Mate, Mr. Warrington; a most remarkable officer, who had taken leave from the Canadian Government Mercantile Marine to make this voyage; the Second Mate, whose name I have forgotten, who was putting in deep water time for his future promotion; the Chief Engineer and Donkey man; and six seamen, none of whom, I think, had been under sail before. However, they were a good bunch. The ship had three one-hundred-foot masts and the funnel for the diesel engine was located just abaft the mainmast. This was a bad arrangement with a semi-diesel, as big balls of sooty flame would come out of the funnel every so often and, no matter which tack we were on, this ball of fire would go straight into the lower portion of the sail. This meant keeping seamen in watches standing by to put out the fires.

The Mate took me aside after my efforts aloft and was quite surprised to find that I was not employed by Marconi and that I had never been an operator on a merchant ship before. Because of my seamanship training and my evident usefulness aloft, I was now accepted in the Saloon as a desirable type, whereas beforehand I had been mostly left to my own devices. He explained that work aloft was usually performed by the Boatswain's Party on merchant ships. En route to Akutan in the Aleutian Islands, I maintained communication with Estevan on the west coast of Vancouver Island. After watering ship and proceeding northward in the Bearing Sea, I realised that I would be out of touch when we went beyond the range of St. Paul's in the Pribiloff Islands, so I made up my mind to do something about it at Nome, Alaska, where we were to stop for two or three days. As luck would have it, there was an epidemic of influenza at Nome and the Army W/T stations were badly hit. The United States Army maintained a network of communications in Alaska, which handled all telegrams, and they used radio instead of land line for the majority of circuits. The Officer in charge was very thankful to me for repairing his Poulsen Arc transmitters and showing his youngsters how to maintain them. This was where my old "EUROPA" training came in useful. The Army officer was insistent that I should join the United States Army. He guaranteed that I would get a commission very quickly and that I would be located up there with my family at what was, at that time, a fabulous salary.

However, the only thing that I managed to scrounge to make a suitable receiver for myself was some field coil wire, about 18 gauge, and a condenser, variable air vane, 3,000 cms, out of an old Telefunken transmitter. I got our Carpenter to make me formers of wood which would slide on a central axis and I made honeycomb coils with the field coil wire. As I designed the coils for working up to 30,000 metres in wave length, the size and weight can be imagined. I had a detector and two-stage amplifier and used one of the discarded batteries, which had been used in the attempt to make the engines start electrically, for my filament supplies and the ship's emergency lighting battery for my H.T. I used the electric radiator in my office as a charging resistance and we had no problem with reception for the remainder of the voyage. I sent a note to the Officer in Charge of Communications in Alaska, asking for a station to communicate with us at routine intervals during our voyage, but this was ignored. There was no station available for communication on 600 metres once out of range of St. Paul's in the Pribiloff Islands. Our ship was in the class where carrying radio was not compulsory. We had a final general look over our rigging and prepared for the Arctic at Teller, a little further round the coast and north from Nome.

While at Nome we took Raoul Amundsen and his pilot on board. This was in June or July, 1923, when Amundsen was making an endeavour to cross the North Pole from Wainwright, Alaska, to Spitzbergen by air. He had a plane fitted with skis but unfortunately his pilot, Mr. Omdahl, had a spot of bother and broke the ski landing gear. We radioed a message to Curtis Brothers, New York, asking if a plane could be provided on the last ship from Seattle that season but nothing could be done. We enjoyed the company very much and I was busy teaching Mr. Omdahl English. Amundsen had a very fine reputation in the Arctic among the people who really knew it and we were all very sorry for him. He and his pilot eventually returned to Norway via Canada and his financial affairs were straightened out.

Later he joined Brigadier General Nobile and his party and subsequently lost his life in the Arctic while looking for some of the party who were lost. Omdahl was killed when the plane that he was piloting for Mrs. Grayson, named "The Dawn", was lost in one of those early attempts to fly from New York to Europe.

We had a passenger, whom I have not previously mentioned, Mr. Leo Hansen from Denmark. He had a mission from his government to join Mr. Rasmussen, whom he was to find somewhere in the vicinity of King William Island.

We proceeded to Point Barrow where the ice was still joined to the shore, which afforded an impenetrable barrier. Another ship showed up, the M.S. Arctic, belonging to Liebes Brothers of San Francisco. I should mention that we saw the most clear and remarkable mirages that I have ever seen, a little way South from Point Barrow, well outside the visual range of the ice barrier. We saw a sailing ship quite clearly, a little later we saw the ice barrier like a high wall of ice, and then the ship, which later we found to be the M.S.

Arctic, again appeared upside down on top of the ice. We did not come up to the ice in reality for a couple of days.

On the day that the ice left the shore at Point Barrow,, a couple of nurses from the post ashore went in swimming to celebrate. The people manning this post at the farthest North point of the American Continent were a schoolmaster with his wife and son and some nurses, maintained there by the United States Government to run a school and look after the Eskimos' health.' The Eskimos' health steadily deteriorated with the advent of the white man. Their myths and legends continue, but it now appears that they will eventually be submerged in the new developments of the North by the white people. One little story sticks in my mind. A long, long time ago there lived a most beautiful Eskimo girl and a most handsome and splendid Eskimo boy. They always played together and the little girl was very fleet of foot. When he chased her, she could always keep just ahead of him with a little extra effort. One day he was chasing her and she ran so fast that she ran right off the edge of the north and he tried so hard to catch her that he slipped off the edge also.

They have been chasing in the same order ever since. She became the sun and he became the moon and they have been crossing the sky from north to west ever since.

A peculiar situation existed in the matter of carrying goods to the Canadian Arctic. There had been a sort of feud existing between the Hudson's Bay Company and the Canadian Government, which originated in the fact that under their charter from King James, the Governor and Company of Adventurers of England, Trading into Hudson's Bay, commonly known as the Hudson's Bay Company, were given exclusive rights to vast areas in Canada. For decades there was friction because, wherever the Hudson's Bay Company opened a fur trading post, the North West Mounted Police (now the Royal Canadian Mounted Police) put one or more of their personnel, thus curbing the actions of the traders to some extent.

The facts of the case concerning our voyage in 1923 were that the Hudson's Bay Company were opening a new post at Albert Sound, Victoria and Banks Land, and were limited in their cargo-carrying capacity to such an extent that they maintained that they could not carry additional freight for the Police. There was a law governing the carrying of Canadian Government freight from one Canadian port to another, which made it compulsory for it to be carried in a Canadian ship. In this particular case an arrangement was made by government action that Liebes of San Francisco could have a charter to carry Canadian Government freight to posts in the Canadian Arctic.

The M.S. Arctic was waiting near the edge of the ice barrier together with us, and it became a matter of considerable interest as to who would get by Point Barrow and make their way East first and get the choicest pickings at the lonely posts en route. It should be realised that at this time of the year there was twenty-four hours of sunlight a day and work need never stop.

The elements, however, were on the side of the Hudson's Bay Company. M.S. Arctic made an attempt to force her way through a narrow lead and became locked in the ice. Dynamite and gun powder charges could not free her. Things looked bad indeed and she reported fifty feet of ice under her keel. However, a gale arose and she managed to struggle out eventually, but her propeller was badly damaged. I think water was entering by way of her snuffler boxes and she literally appeared to be limping as the vibration was so bad.

Subsequently it was agreed that she could not proceed along the Arctic Coast eastwards and an arrangement was made that "Lady Kindersley" would take her freight onwards for eight cents a pound. The freight rates prevailing then were eleven cents a pound from Vancouver to points east of Bailley Island in the Canadian Arctic. This meant quite a loss for Liebes and additional profit for the Hudson's Bay Company. I played with the idea of getting some backing and, in partnership with three or four men, chartering or buying a suitable vessel and obtaining a Government Charter to carry, say, four hundred tons of Government freight per year for three or four years, thereby making a fortune, especially as we could also trade for furs. However, this plan did not develop, as the opposition was considered to be too powerful and insurance could not be obtained. I still think that a fortune could have been made if I could have obtained some backing.

I recall that we had some remarkable personalities on board. We had Mr. T.P. O'Kelly from the Fur Trade Department of the Hudson's Bay Company. He upset our Mate a little with his constant emphasis on his own importance and the repetitions of his experiences in the Army. The Mate was not having it and one day surprised us all by flying off the handle and saying he had heard enough. It then transpired that he (the Mate) held senior Army rank and wanted to hear less from Mr. O'Kelly in the Saloon. Then we found that our Mate was indeed an unusual type. He had been the Master of a sailing ship which arrived in Sydney, Australia, when war broke out. He gave his owners notice and joined the Australian Army as a private. He then served through the Dardanelles Campaign and rose by stages to the rank of Major. When an order was issued for people with Merchant Service experiences, particularly in navigation, to inform the authorities, Major Warrington was taken from the

Army and transferred to the Royal Navy, where he became the Navigating Officer on the old battleship "RUSSELL" before she was damaged in the Mediterranean. He had every right to assert himself. He was slight in stature, something like Captain Kettle without a beard, and great in ability.

A passenger, taken up by "LADY KINDERSLEY" previously, was a nurse (from St. John, N.B., I think), who was warned by our bluff old captain of what lay in store for her if she persisted in marrying the missionary at Bernard Harbour. He had been instructed to carry out the ceremony but obviously did not want to do the job, as he stressed the facts that there were no sanitary arrangements nor proper midwifery; he pointed out the crudeness of Eskimo nursing and prophesied the arrival of an infant that could not be provided for as in civilised places. She insisted, however, and things turned out precisely as the Captain had foretold. We embarked them on our return voyage and the Captain could not withhold his disdain for the missionary during our journey to Vancouver.

A very interesting development was the fact that my homemade receiving gear worked fine and I was able to give press news to all and sundry during our voyage, receiving from Rugby, England, San Francisco, or the Island of Guam in the Pacific. The Dempsey-Firpo fight especially created quite a sensation. I particularly remember old Captain Klingenberg coming on board at Herschel Island. I guided his hand on the key and let him transmit a couple of words of a message for himself. What a thrill the old chap got out of it! Ours was the first ship with radio in the Western Arctic. There had not been a ship in the year before on account of the ice conditions, so some of the people that we met had not been in touch with the outside world for two years. Now I was giving them the news daily. I received all the messages sent by St. Paul's, Pribiloff Islands, but could not be heard by that station at points east of Point Barrow.

During the M.S. Arctic's plight when stuck in the ice, both she and we sent SOS for the best part of a couple of days without response. This accentuated the need for a station in Alaska to communicate on 600 metres.

The greatest advantage of our receiver was the fact that we could receive time signals regularly. I set the receiver to receive daily time signals from Balboa, Panama, at 2 a.m., Pacific Standard Time. Also I ran a pair of leads from the receiver to a point adjacent to the ship's chronometer and instructed the Captain in the art of taking time signals and rating the chronometer. He had never been on a ship with radio before, but he soon appreciated the fact that here was a chance for him to shine. He proceeded to "Lay out" the coast line accurately and was enabled to do so because of the continuous daylight and the time accurate to one fifth of a second. His mate was a very accomplished navigator and he took a major part in this work. Incidentally, Captain Foellmer was made a Pilot of the Port of Vancouver when we returned there. It was most remarkable as he belonged to the old school and could hardly read or write.

I resume my narrative again at Herschel Island. This was the headquarters of the R.C.M.P. and was the centre of a dramatic trial at the time. A Corporal Dock had been shot by an Eskimo youth at Coppermine. The story we were told was that Corporal Dock had originally come to Canada from the Southern States and joined the R.C.M.P. He had treated the Eskimo in a provocative manner, finding fault with this and that, until one day the Eskimo took a gun and shot him. The Hudson's Bay Company factor came across to see what was going on and he also was killed. The young Eskimo enjoyed considerable freedom at Herschel Island and was generally well liked by all, especially by the Police, and he obviously did not appreciate the seriousness of his crime. However, with Judge De Buc from Edmonton presiding and Mr. Cory, the son of the Minister of the Interior, prosecuting and another lawyer defending, the trial was held and White Man's Law was upheld. The general feeling was one of bewilderment, but the process of the law had to be observed and the hangman did his job. I think his name was Mr. Ellis. The whole episode left a nasty flavour behind.

I have never met a more cheerful type of human being than the average Eskimo. Their moral code was adopted to their lives and to my mind it was refreshingly clean. Certainly there were many things that did not go down well with normally civilised white men. For instance, there was an approximate ratio of one Eskimo girl to three boys and realistic arrangements were made accordingly when maturity was reached in areas where this situation prevailed. It should be realised that they were a self-sufficient, generally happy people, with a tremendously cheerful outlook on life. When one realises that they had to go South for hundreds of miles to get a piece of wood to make a spear, that they completely depended upon their hunting skill to live, and that their food was mainly fish, seals and walrus, making it essential to be successful in their community hunts for those animals, it was most surprising to find them so very cheerful. I came to the conclusion that most likely it was due to the fact that there was no subterfuge and that there was absolute honesty and sincerity in all their details of living. The peculiar thing appeared to me to be the fact that in that territory the odd person with a bad record in some city down South would eventually be imbued with that spirit of the Eskimo after living with them for a matter of a couple of years or so and would become morally clean in the same manner. However, others of far greater experience in this field than I have recorded their views in this matter.

In regard to Captain Klingenberg. We were told that he was originally the Mate on a whaler under the United States flag. She sailed from San Francisco at about the time when news of the Klondike gold strike was filtering through. Some of the crew intended to go to the Klondike as soon as they could leave the ship, regardless of contracts. The ship eventually arrived at Herschel Island and, although it was ridiculous to attempt to reach the Klondike area from there, some of the crew were determined to try. The Mate warned them and when they persisted and tried to desert the ship, he shot a couple of them to suppress the mutiny and desertion. Their graves are at Herschel Island.

Captain Klingenberg remained up there, perhaps to avoid the courts, and eventually obtained and ran a small trading vessel in the Arctic, using Herschel Island as his base. It was generally chartered by the Hudson's Bay Company to deliver and collect goods from their scattered posts in the area. He married an Eskimo and thought a lot of his family. We brought two of his children to Vancouver to give them a chance to be educated. I think I gave them their first real bath. They were a boy and a girl aged about nine to eleven years I think. Captain Klingenberg was highly respected and I believe that he subsequently retired to Vancouver himself.

There was another remarkable ship, a sailing ship, which was still whaling under the command of Captain Peterson, the owner- captain. He had his wife with him on board, and his cabin was just like home. He had a long record of successive voyages to the Arctic, where he sometimes used Wrangell Island as a base back in the 1890's, as I noted in his old logs.

At Herschel Island the independent trappers met from several miles of Northern Arctic coast line. These men, about seven or eight all told, came to Herschel Island each year to greet the ship bringing them their supplies. They were each permitted twelve bottles of spirits per year. On this occasion they put by what they considered they should keep for medicinal purposes and had quite a spree with the remainder. Their accounts were kept in Hudson's Bay Company factors' books, and all of them were quite well off. Money was hardly ever used in the Arctic but on our trip eastward from Herschel Island these chaps would use the Saloon for their poker games. It was a game that none of us ordinary mortals could join as the stakes were out of our reach. A couple of thousand dollars in a pool was quite a common sight. However, they had a good time, with good eats and everything laid on. They were dropped off at their respective posts, where they would accumulate more foxes for the next year's market. There was one in particular, Mr. Clarke, who had the reputation of managing his dog team without hitting them. I believe that he had a good education, joined the Hudson's Bay Company as an apprentice, and was posted to a particularly remote area. When his apprenticeship was completed, he trapped on his own and made several thousand dollars. To digress a little, he went to Vancouver and started up an axe handle factory, which, I understand, was a flourishing concern, but he could not stand the mock modesty and insincerity of city life, so he sold out, regardless of any losses incurred, and returned to the North.

We embarked an ice pilot, a man with particular local knowledge of ice conditions, and we sailed as far as Coronation Gulf, where we landed our Danish passenger, Mr. Leo Hansen. He was very fit and was learning English en route. He had been given a substantial amount of money by his government to buy cinematograph and camera equipment. His mission was to find Rasmussen, who was supposed to meet up with him on King William Island. I think part of the work to be done was in connection with proving the origin of the Greenland Eskimo. Leo Hansen and I became friends during the voyage. He took photographs at Akutan in the Aleutian Islands and on board. He took one of me up aloft, which I prized, but I subsequently had the print stolen in Detroit, Michigan, together with some other things in a wallet. He promised me a series of photographs covering his subsequent adventures, but I have not been able to contact him since and, with the 1939-1945 war intervening, anything may have happened.

We eventually turned round and headed for Point Barrow on our way back to Vancouver. It was early in September and it was imperative that we should be clear of Point Barrow by around the 15th or not much later, depending upon the formation of new ice and the movement of the old. I had ample opportunities to study the effect of the Aurora Borealis on my radio reception and discovered, to my surprise, that I could receive quite well on medium frequencies from ships on the Pacific, with the milky waves of the Aurora right at the masthead. The peculiar thing was that the land lines were severely affected at times about five or six hundred miles south and that shorter wave lengths (higher frequencies) were adversely affected. We went through patches of ice which made quite a din as it struck our sides, but we had no difficulty, although the strain on our Captain was severe as he spent so long aloft in the Crows Nest. We rounded Point Barrow and entered the Behring Sea just as the ice was forming. We hit some rather bad weather adjacent to the Diamedes, where we could see the coast of Siberia to starboard and Alaska to port. We were offered some silver lead ore as ballast at some place on the Alaskan side but our Captain wanted as much sea room as possible and would not close the shore to load it. We were inclined to be top heavy, having discharged all our cargo and only carrying bales of fur homeward.

One day the mainmast was observed to be jumping in its step when rolling to starboard. At the same time my aerial was fouling and I went aloft and fixed it, letting it go free from the mainmast. On arrival on deck I was met by the Chief Officer, who was very surprised to hear of what I had just done under the circumstances. He then asked me if I was willing to do a job aloft for him, as it appeared that I was the only man available who was trained for such work. I simply went aloft, taking a strap with me, which I fastened to the mast above the yard and with a single pulley attached, I passed a heaving line, which I had taken aloft with me, through the block. When the end reached the deck, a heavier line was made fast by those below, which in turn I guided through the block and down to those below again. This arrangement took the strain in the place of the port shroud, which had started to part. The mast was OK for the remainder of the voyage. I was the little hero and as there was apparently no orthodox arrangement whereby I could be given a bonus, I was given some hundreds of hours overtime, which netted me a nice sum at the conclusion of the voyage.

Captain O'Kelly left the ship at the Aleutian Islands as he preferred to take a passage on an United States Coast Guard Cutter for the remainder of the voyage in preference to crossing the Gulf of Alaska in a "light" ship. We ran into bad weather as we were heading for Dixon's Entrance on our way to Prince Rupert. There was an SOS from another auxiliary schooner about fifty miles from us, which had run ashore South of Dixon's Entrance. We heard that they all got ashore and were picked up later.

Our Captain showed the strain at this stage, as well he might, and he was persuaded to go to his cabin while Mr. Warrington took the ship into Prince Rupert and tied up. I did not hitherto mention an episode whereby we obtained a big polar bear skin, which our Captain disposed of to Mr. Goldbloom, a dealer in Prince Rupert. One day, while in Prince Albert Sound, Victoria and Banksland, I was on deck and spotted this fine animal swimming. I told the Captain and he ordered the small boat away.

He had had lots of experience in hunting seals and was used to rowing by the pushing method. I sat further forward and pulled and Captain O'Kelly had taken a 30.30 gun from an Eskimo, as he wanted to do the shooting. We manoeuvred into position and Captain O'Kelly fired. It took eleven hits on the head, which of course was the only part showing, to kill the poor brute. It was my job to pass a line around its body for towing. Luckily for me it proved to be quite dead. I never pulled on oars so hard in my life before and my hands were sore for a couple of weeks afterwards, as we had to pull against a light wind and the bear's body was practically submerged. It was eleven feet three inches long and was very heavy indeed. The Eskimos ate the meat and skinned the animal.

We arrived at Vancouver in due course and I left the ship at the end of October. Eventually my wife and daughter rejoined me from Winnipeg. In the following year the "LADY KINDERSLEY" was lost, abandoned in the ice, but fortunately without loss of life.

## CHAPTER 11

### Pachena Point, Vancouver Island (1923-1926)

When I took my examination for my Canadian Certificate of Proficiency in Radio in Victoria, B.C., it had been suggested that I might wish to join the Radio Branch of the Department of Marine and Fisheries (now the Department of Transport) after completing the voyage to the Arctic and this I agreed to do. I now received a letter telling me to proceed to Pachena Point on the west coast of Vancouver Island (via Comox to Port Alberai and thence via a fishing boat which carried the mail to Bamfield, a small fishing village by Barclay Sound) and report to the Captain of the lifeboat there, a Captain Brady. I was also informed in the letter that things were in a wild state at Pachena Point and that it was not a suitable place to take a woman.

Well, I arrived at Bamfield and met Brady, whom I found to be an ex-Royal Marine Corporal, and we became friends right away. He told me about the area and how, on very rare occasions, it was possible for him to take people by sea and land them on the rocks at Pachena. There was a cable station across the water at the commencement of the trail to Pachena Point, where the cables connecting Australia and Canada, via Suva, were terminated. The distance over the trail was ten-and-a-half miles and there were streams every few scores of yards with improvised crossings. In the state it was then no vehicular traffic could use the trail, not even a donkey. It was eventually somewhat improved by a chap named Chisholm, who was given the job by the Government to make bridges out of materials from the bush and improve the life-saving trail. It was then pretty good but for hiking only. I duly arrived at Pachena Point and found an old abandoned radio station that had been out of use since 1916. The original building that had housed the lighthouse keeper had been burned down and the lightkeeper was now using the radio station dwelling house for himself. Plans were under way to construct a radio direction finding station and eventually to house the staff to man it.

I scrounged around and found a lean-to addition to the engine room, which I laid claim to and used for shelter and sleeping. This engine room deserves a description. It contained two distillate-driven engines, one being a six-horsepower vertical type and the other an eight-horsepower horizontal type, manufactured by Fairbanks Morse. We eventually got them both going, but they were old and, having been long disused, were hard to start and maintain. It was a very hard job to start either one by oneself and eventually we only used the 8 H.P. horizontal one. It was a single-cylinder, flywheel starting type which charged some old Edison Cell batteries which had very little capacity. This meant that later, during very busy Spells, we had to keep the engine running continuously. This was preferable to starting the thing two or three times during an eight hour watch. The only way that we could manage on our own was to wedge a piece of wood between the exhaust valve and the wall and then, after priming the carburettor with petrol, we would stand on a spoke of the flywheel and get it into motion as quickly as possible and, while it was still rotating, kick the board away.

This was quite a trick. If you were very lucky, the darned thing would pick up speed and keep going, but it usually took several attempts before it deigned to continue to run. The engine room was about 150 yards at least from the office and it was not very enjoyable to gallop along there through a howling tempest and make several abortive attempts to get it running with ships waiting for service.

The chap in charge lived in the only liveable quarters, the original single-men's dwelling house, as the old lightkeeper's house had been burnt down and the lightkeeper was using the house originally intended for the use of the radio officer. The personnel on the station when I arrived included a Mr. Kelk, Officer in Charge, his wife and two children, a boy and a girl. He was an ex-British Army officer, who had served seven years in India in the Royal Engineers and had risen to the position of Corporal in that period; subsequently, on being called back for service in the 1914-1918 war, he was eventually commissioned as a lieutenant. His only previous experience with direction finding was a very sketchy one. He had been given a job on one of the listening posts in Britain as part of his recuperation after a spell of sickness. The lighthouse keeper was Mr. Davis, who had his wife and daughter with him and also an assistant. The Government lineman was Mr. Lynn, an ex-Royal Northwest Mounted Policeman, who lived in his own shack. The radio station erection was under the supervision of Mr. McQueen of the Radio Branch, who orientated the loops (one north-south and the other east-west), which were each 500 feet in length. The station erection was completed within a few weeks of my arrival. The Department had sent a cook who set up his quarters in an old bunkhouse where a detachment of Home Guard types had been quartered for anti-invasion duties during the 1914-1918 war.

As this was a Radio Direction Finding Station, care had to be taken not to place metal objects around, especially movable ones, and no wiring ran to dwellings, which meant that we used oil lamps, except in the station itself.

One other radio man turned up, a Mr. Legge-Willis. The office building was finished, the station was calibrated and opened for business. It soon became evident that we had an exceptionally good location, in spite of the fact that the office was near the top of a high rocky cliff side, and we found that we could give bearings with absolute confidence to an accuracy of  $\frac{1}{4}$  degree. We later had a new lead acid type of battery installed, so that we did not have to run our charging engine so constantly. We could receive from ships right across the Pacific Ocean with our five-hundred-foot loops and give accurate bearings to ships for two to three days before they saw the Swiftsure Lightvessel at the entrance to the Straits of Juan de Fuca.

I had been there about two weeks when I received a letter from my wife, in which she intimated that, regardless of the fact that I had been told that there was no provision for a woman there, she was leaving Vancouver to join me. When my wife arrived at Bamfield, my friend Mr. Brady took a chance and brought her round in the life boat. Fortunately it proved to be just possible to land.

With the boat rising and falling a matter of several feet alongside the rocks, you had to be really nimble and jump at exactly the right moment when the boat was at its highest point. With the angry sea swirling around, it was quite a nerve-straining experience.

My wife had a rough trip round from Bamfield. When they were passing Cape Beals, as the lifeboat passed over the top of a heavy swell, three heads of sea lions protruded from the next wave and looked for all the world as if they were entering the boat. This sort of thing, mixed up with some seasickness en route, was the prelude to landing by means of a small rowing boat. After landing, there was the 150-foot cliff to climb by using foot holds on the rocks, interspersed with a few steps made at convenient points with cement. The first impression on reaching the top was one of complete isolation; some described it as desolation and the "last place that God made".

My wife proved her wonderful ability to create order out of chaos and adapted herself in a most wonderful way to the conditions. About three times a week she baked bread, really wonderful stuff (she had taken first prize for bread-baking when she was a child of ten in a village in Norfolk, England). Also she shot and fished for fresh grub and made the twenty-one-mile hike to Bamfield occasionally for mail. No normal woman would have put up with the primitive conditions, at least not without continuously complaining, but Nancy, bless her, thrived on the hardships imposed on us there.

The coast in this vicinity was known as the graveyard of the Pacific as there had been a great many shipping disasters in the past. The Government maintained a single telegraph line and a lifesaving trail along the coast. The linemen were responsible for approximately fifteen-mile stretches each. Our ex-North West Mounted Policeman, the lineman for our section, had his duties to perform, which included keeping the line in order between Bamfield and a hut near the Klanawa River, a few miles south from us. The next section was maintained by Mr. Logan, who lived at Cla-oo-ose, where there was a settlement of Siwash Indians and a trapper and woodsman named Chisholm. Bamfield was ten-and-a-half miles northeastward from us; in the other direction Cla-oo-ose was sixteen miles southward. Our nearest neighbour was a Mr. Moseley, an ex-remittance man, who maintained his establishment alongside the trail at Pachena Bay, about four miles on our side of Bamfield.

My wife and I set up house in the lean-to shack and we had to improvise to the best of our ability. I made a yoke and carried water from a creek a few hundred yards away for drinking and washing. I fetched a spring and mattress from Bamfield. All the other bits and pieces, tinned foods, etcetera, had to be carried overland also. It was quite a chore to walk the twenty-one-mile hike over the rough trail at least once a week. The C.P.R. ship, the S.S. Maquinna, called at Bamfield every ten days when we could collect our mail and get any tidbits in the way of fresh food. We relied mainly upon shooting and fishing for our fresh grub and my wife became an expert shot. When we first arrived I had obtained an ample supply of .22 ammunition and a little .22 rifle. I stuck an empty milk tin on a tree some distance from our shack and told Nancy to carry on till she could hit the tin every time. This she soon accomplished. When she became proficient with a shot gun, I bought her a beautiful little Stevens single barrel, sixteen gauge, and she got herself a well-deserved reputation as a very good shot with rifle or shot gun.

We acquired a wonderful dog which would accompany us wherever we went in the bush. It was a wonderful retriever, especially in the water. Once in a while we would hear the cry of a cougar in the bush and the hackle on the dog would rise and general excitement would prevail. The bush was so thick that it was impossible to see more than a few yards and so wild animals were hardly ever seen. It was comforting to know that there were no poisonous snakes or grizzly bears and that the animal inhabitants would keep their distance.

The bush was constantly wet and every time one brushed against it there would be a deluge of water. The trees and the undergrowth were tremendously developed. It was quite a common experience to walk beneath trees that were 250 to 300 feet high, sometimes with their lowest branches over a hundred feet above the ground. The bush of salmon berries or salaal berries was so thick that it was possible to lie on top of it; it would grow to a height of approximately twenty feet. You could not proceed through this type of bush except by the game trails or specially cleared paths, which were very few and far between. I got quite a thrill out of hiking through the bush and would often disappear in order to enjoy the experience of sitting in a quiet spot, looking at the tremendous trees, and watching the wild life gradually resume its activities. The size of the trees and the vast loneliness brought about a feeling of awe and on the rare fine day it was an experience well worthwhile. I say rare with good reason as we had approximately 130 inches of rain a year; in the summer, fogs prevailed close to the coast with temperatures in the fifties. We very seldom saw any frost or snow, but we would experience gale after gale for long periods. Indeed, we sometimes had to crawl along the path by the cliff edge on the way to the engine room.

Mr. Kelk did the clerical work attached to the station and kept watch from eight A.M. to 4 P.M. daily while Legge-Willis and myself split the night watches. We all dug in on maintenance, cleaning the office and the engine room, pushing ninety-gallon drums of distillate and stores around, and no account of the number of hours was kept. We all had a feeling of pride in our station and generally gave shipping a very good service. I was the only one of the staff with previous experience in radio direction finding, as I had been trained in the art and had used it considerably on H.M.S. Danae. This helped out a bit as I was able to pass on useful little bits of information. However, I was only a temporary employee and had less than three years in Canada. One day a letter arrived with a copy of an Order in Council from Ottawa, proclaiming that I was made a permanent Civil Servant for meritorious work at the station. All this meant was that five percent of my pay from then on would be deducted for superannuation and I could not reclaim it if I left the Service with less than ten years time in and then only by means of a doctor's certificate.

A very strict surveillance was maintained in regard to the service that we gave to ships, the accuracy of the bearings, the number of bearings given, and, particular attention was given, of course, to the station's handling of SOS calls. It soon became evident that our station was very much better than those maintained by the United States Navy along the Pacific coast. We could give quite reliable bearings for hundreds of miles, while they were restricted (owing to the insensitivity of their equipments, mainly due to their small rotating aerial systems) to giving bearings only when ships were close by. This eventually led to an arrangement, sanctioned by Ottawa, whereby an authorised person was sent to Pachena

Point by the United States Navy to investigate our equipment in the interest of safety of life at sea. I was introduced to him, but I thought it expedient for me not to take part in the conversation that subsequently took place between him and Mr. Kelk. I went into the bush for a few hours. The report that he subsequently submitted emphasised that, in his opinion, our station was superior because we had such wonderful personnel, an ex-Royal Engineers officer and an ex-Royal Navy man (meaning me). This, to my mind, was plain balderdash. The United States Naval ratings manning stations at Cape Flattery and Destruction Island were as keen as mustard, and if they had had gear comparable with ours, their whole service would have been so much better. A further proof of this, if necessary, was provided by the fact that when the United States Fleet had their semi-annual manoeuvres, it was arranged that Pachena Point would take part in the radio direction finding exercises and would be included in the tabulated results. For the two-and-a-half years that I was at Pachena Point we came clear at the top of this list as the best outfit every time. I would not say that I did not try to be sure of this. Being ex-Royal Navy, how could it be otherwise?

As an instance of the strict supervision of Radio Direction Finding by the authorities, I relate the following episode. One night, at approximately 2 A.M. Mr. Legge-Willis was on watch. He entered in the log a message, sent in the ordinary paid message form by a Norwegian ship with a mate-operator, informing his agent in Vancouver that he believed that he had struck an object in the vicinity of Carmanagh Point. Carmanagh Point is the next point south from Pachena Point where there was a lighthouse and a radio telephone outfit for use by the lighthouse keeper when required. Legge-Willis swung his radiogoniometer (like a compass dial) around and the line of bearing showed the ship to be on a line a few miles clear of Carmanagh Point. He thought that all was well and that the ship had hit a piece of timber from a broken boom, as this sometimes happened when booms were broken up and lost off the Oregon coast due to bad weather when being towed. He called Bamfield lifeboat station on the telephone and told them as a matter of interest. Soon after this the ship sent an SOS. Legge-Willis took it for granted that the ship was off Carmanagh Point, as indicated in the original message, and did not "sense" the bearing to find whether he was on the reciprocal bearing. He then informed Bamfield again and the lifeboat proceeded right past us round the coast, and went to the vicinity of Carmanagh Point.

In the meanwhile, poor Legge-Willis found to his utter consternation that the ship was on the reciprocal bearing, which, though in an uncalibrated sector for our station, showed the ship to be on the rocks on one of the islands at the entrance to Barclay Sound. However, he could not contact the lifeboat, which was later informed of the situation through Carmanagh Point. Eventually the lifeboat returned to the stricken ship, which had rocks protruding through her bottom. Everyone was saved and salvage was started. The master had been about fifty miles out of his reckoning, but this was not unusual when approaching this coast. As soon as our authorities heard about the matter, Legge-Willis was relieved of his duties. In my opinion, no such drastic action should have been taken and indeed Mr. Legge-Willis should have been commended for the obvious interest that he showed in his work in reading the message and taking the course of action that he did at 2 a.m. that night.

This meant that, until a permanent relief was available, Mr. Kelk and I maintained twelve-hour watches, which was quite a strain. However, we eventually were sent two more operators at Pachena Point, Sydney Elliott and Smoky Harris, and this eased the strain quite a lot. Incidentally, Mr. Harris later on married the lighthouse keeper's daughter.

I was at Pachena Point for two-and-a-half years and then went to Vancouver on leave. I told the authorities that I would be leaving the Service if I could not be appointed to a station where there were schooling facilities, as my little girl was about six years old by then. I remember how she bounced into the house one day, greatly excited, and exclaimed "Oh, Mummy, what do you think? Mr. Lynn can take his teeth out to clean them." She thought it was wonderful. This was her first experience of seeing false teeth.

I recall an association with a most unusual character on the C.P.R. steamer en route to Nanaimo from Vancouver. I saw a most distinguished-looking elderly man walking up and down the deck with two fox terriers in company, one smooth and one rough-haired. He was carrying a gun in a canvas cover. He told me that he was going to Vancouver Island for the first time and asked me if I knew anything about it. I told him where I lived and its isolation. I suggested that if he wanted cougars, on which there was a considerable bounty, he should land a little west from Port Alberni on the south shore of the Alberni Canal, follow the clearing completed for a proposed railway, make his way to the head of Lake Cowichan, and then get Indians to take him by canoe down the Nitnat River to the west coast near Cla-oose. I told him that from there it would be sixteen miles to Pachena Point.

You can imagine my surprise when, several weeks later, on Christmas Eve, the old boy turned up at Pachena. We had quite a celebration and we insisted upon his staying with us for a while. He had a yarn with me at the cliff top one morning about a week later and wanted to pay for his stay but of course I refused to hear of it. I took him over trails, a matter of about thirty miles through rough bush country, and he pointed out animal signs that I could not see. Although he was over seventy years of age, he was as fresh as a daisy. He almost cried when we parted and said how he had thought that the old spirit of the west was gone but here he found it to be as good as ever it was. He was a most unusual character. I thought that was the end of our acquaintanceship.

## CHAPTER 12

### Vancouver, B.C. (1926-1930)

To my surprise, later on I ran across the old chap on Hastings Street in Vancouver. I took him home with me to 4038 West 18th Ave., Point Grey, a suburb of Vancouver, but he would not enter my house without it being agreed that he would pay his way. We compromised for seven dollars a week, which was only a nominal amount for full board residence. He would not go anywhere where his dogs could not enter and he insisted upon two raw eggs in a glass every morning. He disappeared at about 8.30 a.m.' and returned at around 6 p.m. daily, and we had no idea what he did. One day he told us that he noticed that a child was on the way and that he would be leaving, as he knew that he would be in the way.

You can imagine our surprise when he told us that he made his living by gambling. He then demonstrated his skill with a pack of cards. He could apparently shuffle and deal poker hands, knowing what was in each hand. He told us that he deliberately played with crooks but that he always warned newcomers to a game and only played with them if they still insisted. He made about thirty dollars a week, deliberately and intentionally. He then sprang the biggest surprise of all when he told us that, when he was sixteen years old, he had been a member of the Jesse James gang and he described the times when he would have a couple of six shooters and walk down the High Street of some place or other in Iowa. When the gang was dispersed and they were hunted by the authorities, Mr. Conger made good his escape to Canada. Then he linked up with some Indians and went into country north of what is now the Peace River District.

He told me that if I would go with him, he would teach me his woodlore and prospecting and he could guarantee the location of gold that he knew of in that country. However, I pointed out to him that I had a good job, with prospects, with the British Columbia Telephone Company and could not leave my wife and children for such a venture, however much I would like to. I sometimes think that I may have missed the boat, as he was such a remarkably genuine, straightforward and honest type. He had friends all over the place in other parts of Canada further east, doctors, bankers, etc., and he had no use for money beyond the amount necessary to pay his way. He introduced me to his favourite books, *Looking Backward* and *Equality*, written sometime in the 1880's by Bellamy. I must say that they are very well worth reading and should be part of every politician's library. He left us and proceeded to Burns Lake, where he had a shack alongside the lake on a half-section, or 320 acres, which he had obtained by squatting and working on the land providing drainage. Thus passed a most remarkable character from my ken. The picture of him at well over seventy years of age, together with his gun and dogs, getting his living in the bush, with his wonderful spirit and really clean moral code, completely fearless and as clean as a new pin, has left a deep impression with me of something clean and honest.

After returning to Vancouver from Pachena Point, I loafed around for a week and then went to the British Columbia Telephone Company and had a talk with one of their engineers. I was offered a job as a second year apprentice at \$4.75 a day and I accepted it on the understanding that I would have a chance to advance when I had familiarised myself with telephone work. I gave the two weeks' notice required to the Radio Branch and my effects were eventually shipped to me. I was only working for about a month in the telephone company when I was promoted to be Assistant Galvanometer Man at seven dollars per day. It was an interesting job locating troubles in overhead, underground and submarine cables. I did some submarine cable splicing and assisted in the laying of a cable that ran from the mainland via Salt Spring Island in Victoria. I put the necessary amount of money down and bought a house in Vancouver at 4038 18th Avenue, West, for \$4,050. This place today is probably worth about \$15,000. I must here record the birth of my son in Vancouver on the eighteenth of August, 1927. I was then working on the location of faults in cables and every time I called in I would contact the hospital. I received the good news over my dumb bell set when I was at the top of a pole on the road to New Westminster.

After about eighteen months with the telephone company, however, the A.T. & T. interests at Gary, Indiana, bought the Company and I, being the junior lineman, was let out in the reshuffle. This was the result of a sort of family political move. I was very sore at the time, as I enjoyed my job and was right on top of it.

After a little while, I did a job looking after cable call box circuits for the C.P.R. and went to Arrowhead near Revelstoke and repaired a submarine cable in Arrow Lake. This was quite a job. I under ran the cable with a scow with rollers at each end and took a helper, supplied locally, who suffered badly from asthma. The tug left us, promising to return in about eight hours, as it was too rough for them to lay alongside us, there was a blinding snow storm, and the water was rough. The lake was about fifty fathoms deep where we were. You can imagine the scene with the cable lying along the top of the scow, fastened at each end. I bared the cable, made the staggered splices, applied the Para rubber with the toning iron, and made a ten-foot overall lapping with the serving mallet. The cable was a three-core gutta percha job. My helper was frantic as we had no shelter at all, only the sealed tin of rubber, a blow torch and toning iron and a small piece of canvas to keep the wind off the flame of the torch. I thought that the poor fellow was going to jump over the side but eventually the tug arrived and took us ashore. It was Sunday, the 27th of November, and my birthday. The crowning insult was the fact that the Canadian Pacific Railway Company gave me a paltry eight dollars for the job. I was foolish as I should have made a contract with them. By the way, I heard long afterwards that the job was a good one and stood up well. I should have been paid a hundred dollars for it. This is the way that one gains experience.

I was at this time recommended by the Dominion Government Radio Inspector to the British Columbia Electric Railway Company as a suitable man to co-ordinate the work done by the Pacific Utility Company with that being done by the Dominion Government in coping with radio interference. This was 1927 and the advent of "all mains" radio receiver brought lots of complaints regarding interference to reception caused by various electrical circuit

contacts, commutator noises, etc. I found the officers of the B.C. Electric Company to be very co-operative. I was directly employed by the Vice-President and Plant Manager, Mr. Newall, and I worked directly under Mr. Gill, the Distribution Engineer. It soon became evident to me that I must inspect lines, tie wires, insulators, and transformers, and that I must do it myself with a battery-type radio receiver on my back. This raised the question of arrangement with the International Brotherhood of Electrical Workers. I went to work with a line gang, stringing primaries and secondaries for a couple of weeks after which I answered a few questions on paper and was accepted as a journeyman lineman. These fellows were the salt of the earth and I thoroughly appreciate the fact that I was once one of them. It was essential that I belonged to the Union as there was a closed shop at the B.C. Electric Company

I spent the next three to four years locating and curing radio interference in collaboration with the Dominion Government staff and eventually decided that radio interference on the medium frequency band could be cut out or very considerably reduced by a method I had in mind. I then took out a patent in collaboration with Mr. Basil Irvine of the Dominion Government service. After receiving a telegram from the Majestic Radio Corporation, then the biggest radio manufacturers in the world, I obtained leave of absence from the B.C. Electric Co. and proceeded to Chicago.

## CHAPTER 13

### Patent Development in the U.S. (1931-1932)

In Chicago I went to Mr. Grunow, the founder of Majestic Radio, and was most impressed by his rugged sincerity. He took me out of the Y.M.C.A. where I had booked in and made me an honorary member of the Lake Shore Athletic Club. He then put me in the hands of his engineers and they, in turn, got me to divulge what I could in a technical way. Typical of Mr. Grunow was his next step. He found a location, the Virginia Golden Brown Waffle Shop, next to the theatre, in the Chicago Theatre Building on State Street in the Loop district, where the proprietor, a Greek gentleman, had installed a Radio Corporation of America receiver for which he had paid a big price and through which he could hear nothing but noise. He had complained to the R.C.A. people, who had sent a couple of chaps round but could not give him reception at that location. This was exactly what Mr. Grunow wanted and he said "Show Me". Well, this is not a technical journal. To cut a long story short, I located a water sprinkler system tank on the top of the building, placed my special aerial on it and threw my shielded lead down the light well. When I attached my device for cutting out the losses in the shielded lead-in, Mr. Henry, the Production Engineer for the Majestic Corporation, hooked up to the set and the results were perfect. The Greek proprietor could not believe it. He thought that we had put some sort of recording device in the circuit and we had to leave it with him for a couple of nights. He particularly wanted to be able to give his customers, who dropped in from the theatre, the baseball results during the World Series. He was highly elated and forthwith bought a new radio from Majestic. Of course, Mr. Grunow was convinced that the device was good.

It was next arranged that I should go to Mr. Henry's to live, so that we could develop the system for manufacture. Everything looked fine from the technical point of view, but the Wall street crash put a crimp in the works. Mr. Grunow went out of business and quit the Majestic Corporation, mainly due to some skulduggery in the directorship and some short selling. Most of the original executives left out of loyalty to him and he kept them alive somehow until he accumulated sufficient capital to start up again. He was a most remarkable man. Mr. Charles C. Henry was a most capable and hard working engineer, trained at Boston Technical Institute. He was the engineer responsible for the stupendous production record of Majestic Radio. The maximum production possible was considered to be 2,500 sets per day at one time, but eventually with improved inspection methods Mr. Henry boosted this output to 7,000 complete sets of nine-valve highboys per day in the same space. This was a World Record production at the time.

In the meanwhile, however, an arrangement was made whereby Mr. Henry and I were turned over to the Patent Development Corporation, an enterprise belonging to Mr. Clement Studebaker III. He had several thousand dollars worth of equipment and a couple of good radio engineers. He signed an agreement with me, similar to the one that I had with Mr. Grunow, whereby I was to receive \$300 per month plus royalties. We went ahead and arranged to show and demonstrate our device at the June Radio Show.

As all space was now taken up in the buildings allocated, we took a couple of rooms in the Palmer House and set up shop. All the dealers at the show were invited and we sold over 600 of our outfits to dealers who wanted them for demonstrating in their own show rooms. We had an ideal place to demonstrate as the Palmer House was notorious for bad radio reception and the contrast was easily shown.

We next moved to South Bend, Indiana, where we were given the Studebaker Watch Factory to set up production. At this stage Mr. Studebaker found a house in South Bend for my wife, two children and myself. He gave me money for their fares and we were installed. We started manufacturing and I was assured that I would be worth half a million dollars within two years. This was not to be. Samuel Insull, the great czar of public utilities in the United States, went under and Studebaker, who I believe owned about a third of his stock, went under with him. This left me in a hell of a mess, as I had not received any regular salary and was only given a pittance once in a while, sufficient to buy some groceries.

I had to make plans in a hurry. I could not return to Vancouver. Everybody there had been told that I was living in the lap of luxury. Also I had received word that a Mr. Naylor was in my job and it would be terrible to push him out. Incidentally, I was later informed that Mr. Naylor took his own life for some reason or other. I had received a "Quit Claim Deed" on my house in Vancouver because I had not been able to make the mortgage payments, so I lost the lot, about two-thirds paid for. This happened before the law was amended to protect people in such circumstances. My tenant had lost his job and quit, so I had no revenue with which to pay the interest.

I then had to cash-surrender my life insurance policy, which I had taken out when in the Radio Branch of the Department of Marine and Fisheries, as I could not borrow on it. With the money I bought a Chrysler 60 sedan for fifty dollars, which ran very well, as I thought that this would be the cheapest way to get my family and myself back to Canada. When I arrived at the border, however, I was informed that I could not take the car into Canada, as a law had recently been passed precluding the entry of second-hand automobiles which had been owned for less than six months. I had to quickly dispose of it in Detroit, which entailed a further loss, and I bought bus tickets for us all but was subjected to quite an ordeal first. It appeared that, as I had not notified the Canadian Consul in Chicago of my intention to retain my Canadian Status, I was now liable for deportation. This was the limit. My wife, children and myself were given quarters at the border but were not locked in. Eventually I got a long distance call through to Mr. C.P. Edwards, the Director of the Radio Branch, Department of Marine and Fisheries, who knew all about my patent work. He squared things up with the Immigration authorities, and we now proceeded with their blessing. What an experience that was.

## CHAPTER 14

### Ottawa and Port Churchill (1932-1936)

I bought tickets and sent my wife and children to England, where at least I knew that they would not starve. They survived the ordeal somehow. Meanwhile I went to Ottawa to try to get a living in spite of the depression. There was an Order-in-Council in effect, making it impossible to get a government job. If a job became vacant through death, the job had to be filled from within the department. I went instead to the radio-dealing firm of Robertson, Pingle and Tilley and showed them that I could make a sale for them where interference would otherwise make it impossible. They were interested enough to let me make a few dollars, with which I paid for my room and board.

Eventually I met Mr. Sigurd Lockeberg, who came from Norway but had been in Canada since 1907 and who now owned the Ottawa Brass Company with lathes and presses. We made an arrangement whereby he manufactured my device and gave me the use of his office for the necessary correspondence entailed by starting up a business of selling and installing the systems. We manufactured and sold several of our outfits in sufficient quantities to keep eating. We made installations in Montreal and Ottawa mostly, including jobs for the Prime Minister, Mr. Bennett, and the Chairman of the then newly- formed Canadian Broadcasting Commission. Mr. Howard Dexter joined me in my endeavours in Ottawa, and we all tried to make good in spite of the economic situation. The surprising thing was the attitude of some Civil Servants, who blandly informed us that if they were out of work, they would soon do something about it. There were several unfortunate men of far greater ability than they, who had given up all hope of getting work, and some professional men, such as doctors and lawyers, were lined up for jobs of clearing snow or any work at all. Some of the senior officers expected a percentage cut in the price of our installation, hinting that they would recommend it to others. I took pleasure in explaining that they were the very people who could best afford to pay for the device and that the only ones that we gave consideration to were the blind, in particular, and some invalids. We got a contract to lay out the roof and install aerials for Heaviside Layer studies and our own systems for monitoring purposes for the Canadian Broadcasting Commission, which was in one end of the building, and the National Research Council radio laboratory in another part of the new National Research Council Building on Sussex Drive.

Ottawa is a beautiful city and the Driveway, a special route, is most artistically maintained. It is especially beautiful when the tulips come out in the Spring, thousands and thousands of them. The scenic beauty of Ottawa is greatly enhanced by the waterways, the Rideau Canal and Dow's Lake. It is beautiful at all seasons of the year, as the gardens and trees with frost and snow on them have their own peculiar beauty.

Mr. Sigurd Lockeberg is one of the outstanding citizens of Ottawa. He has been foremost in the development of skiing in the area and in the whole of Canada for that matter. He has devoted all his spare time and used his own means to a great extent towards this development. He has accompanied Canadian teams abroad on several occasions and is well known in that field everywhere. He was like a weatherworn but indestructible rock during the hard times of the depression and is a sample of the very best type of Canadian who has made good from scratch, overcoming all handicaps, including language.

I did a special job for the Papal Delegate in Ottawa, making an installation to enable him to hear the Vatican and another for the La Salle Academy, this despite the fact that I was not of their religion, which was an indication that I was getting to be known in that field.

One day I was contacted by a representative of the Ottawa Electric Railway Company and was offered a most unusual job. It appeared that Mr. Tom Ahearn, the millionaire founder of the Ottawa Electric Railway Company, had been upset by complaints in the city council meetings about the noise made by the street cars (trams). Mr. Ahearn originally had contracts for the erection of the telegraph line as the railway was built across Canada. Afterwards he decided to settle in Ottawa and build an electric railway system there. He had quite a job convincing people that he could indeed develop such a system in spite of the prolific amount of snow that came yearly to Ottawa. He persevered and in spite of all opposition had street cars running well in the 1890's and was a real pioneer in that field. He was naturally proud of his system and his political opponents took advantage of this fact. The Mayor, who was opposed to Mr. Ahearn in the local political field, could depend upon annoying him by allusions to the noise made by his street cars. One day he said that the Ottawa street cars made more noise than those in other cities. As there was no device easily available for disproving his statement, he was sitting pretty.

However, Mr. Tom Ahearn decided to do something about it and enquired of the various companies to which he held directorships, what instruments were available to help him in this project. There were none suitable, but he was told that I had just returned from the United States. He asked me if I could do the job and, of course, I said yes right away as I could not afford to miss the opportunity. I bought materials and was given a space to work in on a bench in a street car barn, keeping secret what was going on. I put the apparatus in the back of a Reo sedan and recorded the comparative noise levels in business and residential locations in Ottawa, Hull, Montreal, Toronto, Hamilton and Brantford. The results were recorded on graph paper and tabulated. They showed the Ottawa street cars to be a little better than any of the others. This created quite a little interest and I was very thankful to make a few dollars. I was paid an ordinary salary and submitted all bills for materials to the Ottawa Electric Railway Company for payment. This device later became a centre of interest at the annual convention of the Transit Association, held that year at the Chateau Laurier in Ottawa.

Port Churchill, at the end of the railway from Le Pas to Hudson's Bay, was at that time a new port handling the export of wheat from the Prairie Provinces. It could remain open only about six or seven weeks each year. It was necessary to man the port for the short navigation season. The port was maintained by the Department of Railways and Canals and a skeleton crew looked after it during the winter. I managed to get a job at the radio station there in 1934 and in 1935 during the summer months. The railway journey from Ottawa took four days each way, and the run from Le Pas to Churchill was quite interesting, especially the familiarity of the few local groups with the train crew and the delivery of parcels from Le Pas. I remember one trip to Port Churchill, in particular, when Mr. Crerar, the then eminent parliamentarian, was on the same train on his way to Port Churchill to do a little electioneering. I spent a few hours in very interesting conversation with him.

We arrived there each year in July to prepare the station and do a sort of annual maintenance as at that time there was only one radio man running the station throughout the winter. At this period the radio man was a Mr. Baker and since he was a fairly permanent resident, he was made the local Justice of the Peace. Routine communications were maintained with Coppermine, Chesterfield Inlet, Resolution Island and Cape Hopes Advance. Weather reports were prepared after collection from these points and were transmitted at 7 a.m. and 7 p.m. by landline, with priority, to Toronto and Washington. The ice was still around when we arrived in July. The first ships would arrive at the beginning of August and the last would be out in the early part of September. The ice-breaker "N.B.MACLEAN" cleared channels for the shipping and broadcast observations regarding the areas to be avoided. We guided the ships in by radio direction finding good fixes being obtained by cross bearings from Churchill, Chesterfield Inlet, Cape Hopes Advance and Resolution Island. We gave bearings with accuracy over distances of up to 300 miles. The Canadian Government provided this service mainly to offset the fact that magnetic compasses were rendered useless by the effect of the Magnetic North Pole. Some of the ships had temporary installations of gyro compasses to avoid this effect and to improve their insurance premiums.

Life at Port Churchill was, on the whole, quite pleasant. We played tennis on a hard clay court when the temperature was in the thirties, preferably when there was sufficient wind to keep the black flies and the "no see urns" away. The horse flies were a pest and the mosquitoes took their quota of blood. Fresh water was a bit of a problem. An attempt was made to sink an artesian well at the radio station, but this proved to be useless as the drill found nothing but frozen strata for as far down as it went. The water essential for the maintenance of the wheat elevator all the year round was obtained from a lake about two-and-a-half miles inland. The inlet for the pipe line was several feet below the surface and a head of steam was maintained in a heating pipe throughout the length of the run from the lake to the elevator. Muskeg was packed around the line to a thickness of about six feet over its whole length as an insulator against the cold. This line was broken into at a few points each summer to afford pipe connection for the convenience of the radio station and the cook house.

The water was chlorinated and practically undrinkable. It even tasted in the cooking and red wrigglers came out of the top into the glass if you attempted to get drinking water. The favoured way of getting fresh water was by getting blocks of ice stacked adjacent to your doorway and taking them in to melt in a disused ninety-gallon drum.

The only disadvantage of this was that the dogs, mainly huskies, running loose cocked a leg once in a while against this obviously inviting heap. Churchill in those days precluded women and was a typical shack town. It is completely different now with the advent of the Army, Navy and Air Force personnel. The harbour facilities were excellent and ships of practically any draught could lay alongside and load. Ships such as the Dutch ship "BILDERDYK" with draughts of 34 feet were easily accommodated.

My wife and children returned to me from England in 1934 and we made our home in Ottawa. In November, 1936, however, we decided to go to England, where I intended to see my old folks and earn a living for a period, returning to Canada when economic conditions improved and I could be permanently employed by the Dominion Government.

## CHAPTER 15

### Interlude in a London Post Office 1937-1939)

My father had been appointed Sub-Postmaster at 1 Queens Road, Wandsworth Road, London, S.W.8, and I took over the position from him. It was peculiar at first. It should be realised that I had never before done anything but technical work - light and power, telephone and radio - in my life, and I was not familiar with pounds, shillings and pence. The office was a very large one with four clerks on the counter and a very large number of people of all descriptions to deal with. You can imagine how it was at first when someone would ask for, say, five 2½ d, twelve ½d, seven 1d stamps and Postal Orders and Money Orders of varying amounts, when all I had been used to dealing in was dollars and cents. However, I soon learned to cope with this and was doing the Daily Accounts within a few months. I increased the business so much, by insisting upon efficient and cheerful service, that my income went up by more than ten shillings per week at the first audit.

I found the work to be strenuous with over 600 Old Age Pensioners and the tremendous run on Postal Orders on Fridays for Littlewoods, Vernons, etc., but in a way it was fascinating. For instance, I looked through the Post Office Guide and was surprised at some of the information contained therein. There was one chap, whose name I have forgotten, whom I spoke to over the counter one day. He told me that he had been over to the bank asking for advice about how he could best deal with his problem. He had about £5,000 if I remember correctly and was just retiring from a job in printing side of one of the big London daily newspapers. He wanted to provide for himself and adequate regular amount and retain some to leave to others when he died. He was a fine healthy-looking type and looked good for several years. He also wanted to avoid payment of Income Tax as much as possible. I pointed out to him that there was a bit of a war scare on at the time (the Abyssinian affair), that the purchase price of a Government Annuity was dependent upon the price of British Consols 2½% on the date of purchase, and that since 2½% Consols were low on account of the war scare, now was the time to buy. He bought himself an annuity of three pounds a week for life for fifteen hundred and some odd pounds. I worked it out for him that he recovered all his principal in 8.88 years and he was very pleased indeed. He was then 59 years old, This led to my being regarded as general advisor to lots of people, regardless of the fact that I told them that I really had no knowledge of such matters and that it was all in the Post Office Guide for those who took the trouble to read it. Dealing with all types of people, from plutocrats to Old Age Pensioners, who existed on ten shillings a week, was a wonderful education. The Battersea, Lavender Hill, Clapham Common and Vauxhall Road crowds afforded a wonderful cross section of life, embracing all types, criminals and saints. This would have afforded a fine spring board into politics if one was that way inclined.

I had maintained contact with the writer of the original hand books on Wireless Telegraphy, Captain, later Colonel Miles, R.M., during my patent development work in Canada and the United States and now again I got in touch with him in London.

He had given me good criticism on my work and, as the war clouds were gathering, he suggested that I should not then return to Canada but should stay around to be of service to Britain, although I was now beyond the military age limit. He arranged for me to be interviewed by Mr. Brundrett, who gave me a good grilling, during the course of which I gave him a blueprint of my noise comparison device and outlined the highlights of my career. I had no degrees, however, and so I came under the awkward category of "equivalent" as a civilian technical officer.

## CHAPTER 16

### Admiralty Service, Radar and Direction Finding (1939-1942)

I was sent to report to the Signal School at Portsmouth Barracks in October, 1939, and was allocated to work under Mr. Crampton in the Radio Direction Finding Section. However, before settling down in the D/F Section, I was turned over to Mr. G.M. Wright, whose assistant I became, pending the return from India, where he had been employed on the "Beam" system from Marconi's in Britain, of Mr. Austin, who had previously been his assistant for about five years at Marconi, where Mr. Wright had been Chief Engineer.

Mr. Wright put me to work right away on the problem of eliminating RDF (radar) interference from radio receivers on ships. Mr. Wright eventually became top of the tree in the Admiralty Signal and Radar Establishment and was indeed a most brilliant engineer. It was a great privilege to work with such an individual. Mr. Austin arrived in due course, but I stayed on and was able to assist him in his introduction to Naval ships and personnel. We made several experimental installations, particularly on the specially fitted radar ships, such as "CURACAO" and "SUFFOLK". During the course of investigations I noted that our radar system caused a bad peak of interference at around 130 metres wave length. The transmitter section, who were responsible for the production of this particular radar outfit, said that this was impossible, as it had no relationship to the frequency employed. However, I insisted and Mr. Wright arranged that I should man a D/F outfit at Nutbourne and check my findings by seeing if I could get bearings on H.M.S. Suffolk, who would use her radar equipment en route from the Thomas Estuary in Weymouth. I got bearings on the wave length that I had previously indicated quite clearly and reported accordingly. What a grand device it would have been for the Germans to "home" on. It later transpired that the radiation was direct from the modulator section of the radar outfit and, of course, was adequately dealt with.

Mr. Crampton's D/F Section was developing and expanding rapidly and I was now transferred back to him. I soon found myself being used to introduce new personnel to the ways of the Navy, their comportment in the Ward Rooms of ships, apart from the actual job of D/F installations and calibrations.

Hitherto, high frequency direction finding had been considered practically impossible on ships on account of the reradiation problems involved. Without being too technical, it can be appreciated that any piece of structure of metallic material, joined to the sea via the ship, will act as a quarter wave reradiator. You can realise then that if a funnel, for instance, is ten metres high, it will reradiate violently when a radio transmission on forty metres (7,500 kc/s) strikes it. Imagine all the things sticking up all over the ship, masts, guy wires, guns, davits, funnels, etc., and you can see that it is a very difficult thing indeed to make D/F work throughout the high frequency band on ships. It is relatively easy on medium or very high or ultra high frequencies, but proper care has to be taken with those installations also.

Radio direction finding on all frequencies became my job and a most interesting and fascinating one it was. Ways and means of coping with the technical problems were discovered. It was soon realised that we could get good bearings on enemy "U" boats and so H/F D/F became an excellent means which led to their destruction. It certainly played a major part in winning the war at sea. All credit is due to Mr. Crampton and his able staff, particularly some Polish engineers who were seconded from the Polish Army when France capitulated. Our own staff were mostly BSc Communications Engineers, youngsters straight from universities throughout Britain, who were directed into the work by the Minister of Labour, Mr. Bevin. I thought that they were treated rather badly in the matter of salary. They got £130 per year if they were under twenty-one years of age and a £160 per year if they were over twenty-one. However, they soon progressed and Mr. Crampton did what he could for them. I was used in the training of most of them and had a hectic time during the initial expansion of D/F activities, covering jobs in all yards, from Falmouth to Scapa Flow.

During this period I met some of my ex-shipmates, particularly the ones who had served with me on H.M.S. Grenville. The first encounter was at Wallsend-on-Tyne. I was talking to Mr. George, the Admiralty Electrical Overseer for the local yards, when I walked a Naval Officer who looked at me and then clapped me on the back. I was quite surprised as I did not then recognise him, but he then told Mr. George that he remembered me very well and that he had attained his position partly due to the tough treatment that he had received from me on the old "GRENVILLE". He then reminded me that he was ex-Leading Telegraphist Harry Bolton and that the whole lot of them had done very well in their subsequent careers. The next one that I met was the Commissioned Telegraphist in charge of the radio and radar outfits on H.M.S. Formidable when she was building at Belfast. He was a Telegraphist, named Jan Cruze, if I remember correctly, on the "GRENVILLE". I was very pleased to see the progress that he had made. Incidentally, Harry Bolton finished up as being the officer in charge of radio and radar shipfitting for the Royal Navy, with offices at the Admiralty Signal and Radar Establishment. He was a Lieutenant Commander when I last saw him in 1945.

There were some hectic periods during the early part of the 1939—1945 war, but gradually our personnel were trained and gained sufficient experience to man areas where they looked after the installations and calibrations of vessels building or refitting. Ships of all sizes - King George V class battleships, aircraft carriers, destroyers, corvettes, frigates, submarines, trawlers, minesweepers, tugs and merchant ships - all had their peculiarities and their material requirements.

A funny episode occurred during 1940-1941, when I was concentrating on work in the Clyde yards with occasional visits to the Liverpool, Newcastle and Dundee yards. It became obvious that junction boxes on masts harboured moisture which entered either by exposure or condensation. It was essential to have a means of rapidly drying them out without damage to cabling, so that tests could be satisfactorily completed. I went to all the shops in the area that sold electric hairdryers and denuded them of all that they had. These devices, with long enough extensions to reach most heads, proved to be ideal for drying out the junction boxes rapidly and I gave one each to the Electrical Managers in such yards as John Brown's, Fairfield's, Scott's, and Stevenson's, with instructions regarding their use.

One day I was summoned to appear in the Admiral's Office at St. Enoch's in Glasgow (where the Naval Headquarters were). The Senior Officer of the Naval Stores Department was there; he had complained to the Admiral that his department had been trying to get hairdryers for the W.R.N.S. and discovered that there were none to be obtained in the district. He had traced their disappearance to my possession and so I was asked what I was doing with them. Maybe they thought that I was running a beauty parlour. When I explained where they were and what use they had been put to, however, the Admiral was all in favour of the action that I had taken and suggested that they be given a pattern number and be renamed insulation improvers or something similar, so everything ended pleasantly. It was too bad for the W.R.N.S.

I was mainly responsible for locating a calibration berth in deep water north of Great Cumbrae between Rothesay on the Isle of Bute and Largs on the mainland. The water was deep enough to provide safe anchorage as far as magnetic mines were concerned and it was clear of shipping and high land. We did a tremendous amount of calibration work, reaching a total of all types of calibrations of nearly a thousand jobs a year.

I was working at sea on the 16th of September, 1940, when a signal arrived telling me that there was a telegram for me. The contents read "Dear Reg Nancy in South London Women's Hospital can you come at once - Margaret". I went straight away and arrived at the hospital, alongside Clapham Common, in the afternoon and saw my wife for a few minutes. My son's school, Sloan's School, Chelsea, had been evacuated and he was located at Addlestone, Surrey, but he came into London on Fridays on his bicycle, a distance of about twenty miles, to spend the weekends with his mother. On Sunday the 15th of September, 1940, the bombs were dropping thick and heavy. My wife roused him out of bed and was proceeding to the basement with him when she sensed that a bomb was coming very close. She yelled to a party on the landing above to throw herself down and threw her son down and spreadeagled herself on top of him, putting her arms above her head in the prescribed manner as she did so. This saved her life but only just, as her right arm, shoulder and back were severely gashed, severing the artery by the bicep. Our son was hardly scratched and he carried out the usual schoolboy's procedure and collected souvenirs.

I must pay tribute to a couple of the unsung heroes who performed most gallantly during that period. These two were the people who ran the chemist's shop at the corner of Cedars Road and Lavender Hill. They were official air raid wardens and on this occasion they were doing their usual rounds when they came across my wife. They placed a tourniquet as well as possible and wrapped her up in blankets, requisitioned a private car, and sent her to the hospital. They were both killed within two or three weeks afterwards. They were the type that made one proud of Londoners who faced the terrific ordeal of the blitz with such equanimity. No men could do more and there was no honour and glory or pomposity of any sort attached to their deeds. Incidentally, the woman on the landing above was petrified with fright, remained stationary, and was killed outright.

My wife was barely coherent when I saw her but very worried because she had left some cash and her cheque book on a little table beside the bed. I set off to recover these things, mainly to ease her mind, but when I arrived at Cedars Road and Lavender Hill I found the road barred with unexploded bomb notices on the barrier. I waited till the air raid wardens disappeared, dashed up to the entrance to our place, entered the gateway, and was confronted by a chap in khaki, nonchalantly smoking a cigarette, with a bottle of beer on the broken wall dividing the properties. He was digging out a bomb in the front garden. He told me that I could not enter the premises, but when I told him that I had come down from the Clyde Estuary he said "OK mate but make it snappy as my name will be mud if the Sergeant sees you". I went in and up the stairs, which were still standing, though smothered in rubble; I found the cash and the cheque book on the table under more plaster and rubble and went out again. As I passed the soldier who was digging out the bomb, he said "I'm doing alright mate, see, here's the fin" and he held up the fin of the bomb. He was another type that I greatly admired.

I arrived back at the South London Women's Hospital and found that my wife had been moved to Botley Park Hospital (previously a mental hospital), and so I set out to get there. There was an inferno of noise with bombs dropping and the Naval 4" guns on Clapham Common banging away and, of course, transport was disorganised. However, with a lift on an occasional truck, a few miles walking and a few more on a Green Line bus, I eventually got to Botley Park at about 1.15 a.m. I cajoled the Matron into permitting me to see my wife and thank goodness I was successful. My wife had been so scared, thinking that I had lost touch with her and might not be able to see her again. When I gave her her cheque book and cash, she was so relieved that I think it probably helped her to survive. I spent the remainder of that night crossing London to Euston and eventually got a train somewhere north of London, as Euston Station was closed on account of the bombing, and thus returned to my job.

When the Clyde area was bombed and Greenock and Clyde Bank were so badly hit, I was able to help a little, as I had a petrol allowance and could use my car on official business. I particularly remember filling my car with women and their household bundles done up in sheets and taking them from their destroyed homes. I had no instructions and there seemed to be a lack of organisation, so I simply took them to Buchanan Street Bus Station and told them to get out into the country and report to the authorities when they got there. I gave those without cash about two shillings each, till I was out of cash and often wondered how they made out and hoped that I did the right thing. Glasgow itself was very fortunate.

I can only remember one bomb dropping there near Queen Street Station, but adjacent areas to the westward were badly hit, although ships being built suffered very little.

My wife had continued with the Sub-Post Office at 1 Queen's Road until the bombing episode. After that I fetched her, propped up with cushions, in my car to Glasgow and eventually, as I was established in the D/F calibration area near Bute, to Rothesay on the Isle of Bute, where she remained for the duration of the war. It was the ideal place for her to recuperate and I was very lucky to obtain the ex-Provost's house, "Craigston", on Barone Road. My son was now able to attend Rothesay Academy and continue his schooling in a more regular manner.

One incident deserves comment. It illustrates the abnormalities of the times. About October, 1942, I was at Haslemere as the result of a special conference and was returning via London during a blitz period. My daughter was working as a telephonist at Faraday House while her husband was in the Army and away from the home area. Their house was in Nightingale Lane, Wandsworth. Their son, Roy Kirby, was about ten months old and I made a snap decision to take him away with me to Rothesay, Isle of Bute, where my wife would look after him and he would be clear of the bombing. Can you see the picture? I grabbed him under one arm and stuffed his belongings in with mine in my suit case. I jammed my pockets full with diapers and carried the bottle and stuff somehow. I was in quite a state by the time I arrived at Euston Station and I was very lucky indeed to get a third class sleeper. The other three occupants of the bunks in the compartment must have been a little annoyed. I went along to hold him out every once in a while. By the time we got to Glasgow Central Station I was down to the last diaper and I was feeling pretty grubby myself. I was never so pleased with anybody as I was with the W.V.S. (Women's Volunteer Service) at the station. I handed my bundle over the counter to one of them at about 4.30 a.m. They got some milk, warmed it up, and gave it to him and cleaned him up generally, while I got washed and shaved. The rest of the journey, via Wemyss Bay and the first ferry to Rothesay, was a snip and all ended well, with one slightly worn-out man and a crowing baby. Incidentally, he became sick with measles within a few days of arrival, which he must have picked up in London. The house that I took him from in Nightingale Lane later received a direct hit and the two occupants were killed. Fortunately, my daughter was not at home and she survived all right.

Among the ships that I went on board to plan the installation of H/F D/F was my old ship, H.M.S. Douglas. Quite a lump came into my throat on this occasion. She was still in good shape and had been Captain "S" (submarines) in the Mediterranean for several years. Her ex-Captain, Commander Knowles, when I was on "DOUGLAS", was now the Commodore of a convoy crossing the Atlantic and he had sent a message to "DOUGLAS", extending his good wishes and telling them that he was once her Captain. Incidentally, when I was at Pachena Point, on the West coast of Vancouver Island, he was the Captain of the cruiser, H.M.S. Capetown. I received a letter from him from Victoria, B.C., in which he alluded to the good fishing he had enjoyed. To digress a little further, I saw my old ship, H.M.S. Danae, in company with "DAUNTLESS" and "DRAGON" on their world cruise, pass Pachena Point at about 4.30 a.m. one day and that was another occasion when a lump came up in my throat.

Now to resume. Another ship was H.M.S. Broke, where the Ward Room was worth a visit on account of the lovely pictures hung on the bulkheads, painted by her First Lieutenant, Lieutenant Peter Scott. I believe that he was the first R.N.V.R. lieutenant to become the First Lieutenant of a destroyer during the war. We also did a special rush job on H.M.S. Campbell prior to her sailing on her history-making trip to St. Nazaire, where she performed so gallantly.

The vessels that we used for calibration duties were generally yachts, tugs, fishing vessels, motor launches, but preferably vessels with long endurance, capable of twelve knots continuously in the moderately rough weather conditions generally expected. The ship most used in this service was the yacht "NORTH WIND", luxuriously appointed, built at Manitowock, Wisconsin, on Lake Michigan, near Chicago. It was a pleasure to relax on board her after a day's work. At Scapa Flow we used a single-screw yacht, the "MARIA JOXO", whose previous owner had been General Franco, we were told. We were also informed that, prior to entering the Admiralty Service, she had belonged to a syndicate, of which Mr. Churchill was one member.

Lieutenant Melland, R.N.V.R. (ex-Rugby and Oxford and a Manchester lawyer), was appointed to act as liaison officer for the calibrating area and he became very adept at taking visual sights from the ships being calibrated. This made for much smoothed curves and proved that practice makes perfect. His efforts were very much appreciated.

The hundreds of ships that I worked on during this period, covering the first three years of the war, all played their individual parts and I can only mention a few in this book although all were of considerable interest - naval vessels of all sizes and descriptions, merchant ships, particularly Commodore's vessels, yachts and ships for special duties, such as "PHILANTE", "QUEEN EMMA" and "PRINCESS BEATRIX".

A more or less pleasant interlude was the special duties that I carried out on "QUEEN EMMA" and "PRINCESS BEATRIX". I first visited these ships at Belfast, where they were being modified for their subsequent duties. Later I made several trips to Inverary from Glasgow via the famous hill "Rest and be Thankful", with its local historic connections. Commander Kershaw (the ex-England Rugby wizard whose name was usually linked with that of Davies) was Senior Naval Officer for the group and saw to it that everything was right for his purpose. These ships carried out the famous Commando raid on the Lafoten Islands and the officer in command was obviously the right type for such a venture. He accompanied me back to Glasgow once in a while and used my office telephone, where he would not be disturbed.

The destroyers being built at White's yard at Cowes, Isle of Wight, for the Brazilian Navy were taken over by the Royal Navy on completion. "HIGHLANDER", "HURRICANE", "HARVESTER" and "HEARTY", all did notable work with their H/F D/F. It was a great incentive to us when a ship came in and we learned that she had been successful in operations against "U" Boats through the use of our equipment. The ex-United States Coastguard Cutters were particularly well adapted for fitting work and were very successful in their operations.

Excellent work was done by the whole organisation from Mr. Crampton at the top to the most junior personnel, particularly those young men straight from school who were relegated by the Ministry of Labour to work as civilians with none of the glamour of uniforms to impress their girlfriends. Their dedication to their jobs, maintaining secrecy and contributing mightily to the winning of the war, with no decorations, medals and what have you, is a choice memory and I wish them well in these post-war years in their individual endeavours.

One more or less insignificant event, for which I was particularly concerned, was the fact that one day, when doing a job on the oceangoing tug "SEA GIANT", I ricked my knee while boarding her in a rough sea. I did the job by hopping on one foot and afterwards slid over the gunwale and into the dinghy using one leg. I hopped up the steps at Wemyss Bay. When I arrived at Glasgow, I found that I had developed cartilage trouble on the right knee (inside). It just would not stay put and I could not trust it when working aloft. The Admiral arranged for me to go to Mernskirk Hospital, where I was operated on by the Orthopaedic Surgeon for the West of Scotland. The operation was quite successful, although doubts had been expressed on the outcome, because I was then forty-eight years old. Among the patients in the ward was Lieutenant-Commander Roper, who had fought such a gallant action against odds off the north coast of Norway when in command of the Destroyer "AMAZON" or "AMETHYST", I forget which. He eventually was appointed to H.M.S. Redoubt, which was one of the last jobs that I did in Home Waters. She proceeded to join the Eastern Fleet and I contacted her again in the Indian Ocean area on different occasions later.

I was ordered to report to the Commander-in-Chief, Eastern Fleet, to introduce H/F D/F in particular and set up D/F calibrating bases in general for the area. A Mr. Welton was detailed to go with me. We had our inoculations on H.M.S. Cyclops, the submarine depot ship at Rothesay, at about 6 p.m. at the end of a hectic day. The following morning at about 6 a.m. we were aloft on a job at the top of a mast, prior to calibrating a ship, and we both felt very sorry for ourselves as our arms were very sore.

## CHAPTER 17

### Eastern Fleet (1942-1945)

On the 17th of May, 1943, we joined a big passenger liner, the turbo-electric ship "ARGENTINA", carrying thousands of troops, W.R.N.S., and nurses with officer status, and eventually sailed southwards in convoy. We were allotted cabin space, and in the cabin where I was berthed, which normally was a single cabin, seven people were accommodated. There was some "U" Boat activity and a visit from a German bomber a little north from the latitude of Gibraltar. It was quite interesting to watch some of our destroyer escorts breaking off and doing their attacks with depth charges. Some of our convoy escorts left us and went eastwards to the Mediterranean while we continued southwards. We became accustomed to our drills, games, exercises, meal routines, etc. Water was severely rationed and laundry was difficult, but no more submarine attacks developed and we arrived at Durban on the 20th of June without further incident.

Mr. Welton and I landed at Durban on the 23rd of June where the Signal Officer stopped our onward passage as there was urgent work to be done by us at that port and he signalled the Commander-in-Chief accordingly. I went to Howard College in Durban and managed to scrounge a theodolite. We used Motor Launch 1200 for our first calibration efforts off Durban. There was rather a heavy swell almost always prevailing and motor launches were not quite big enough for the job. We found defects and made the necessary repairs on several ships, Naval and merchantmen, some of the first being the destroyers "QUADRANT", "QUICKMATCH" and "QUIBERON".

We were kept very busy and came across occasional jobs, such as the "CLAN MAGGILLIVRAY", which had been passed by radio inspectors in London, Cape Town and Durban. She reported most erratic results and we located the trouble. It was quite easy - a common installation fault, whereby one of the connections of the fore-and-aft loop had been interchanged with one of the port-and-starboard loop connections. I mention this as an instance of the fact that D/F was only given a perfunctory glance in these so-called inspections and was treated as a sort of "Cinderella" outfit. This was surprising, as so often it was the means of saving lives at sea.

While we were at Durban and Cape Town it was quite obvious that there was a considerable element of pro-German activity and therefore we were very careful indeed not to speak freely to people in red tab uniforms of matters concerning ships movements. It was quite obvious that shipping information was received by "U" Boats, as ships loaded with special equipment for the war effort, en route to Mauritius, were intercepted and sunk. Remarks made by the German officer on the "U" Boat indicated that he knew what the cargoes were and their destination.

Concerning this particular series of sinkings, I met in Durban ex-Leading Telegraphist Andrews, who was on the "EUROPA" with me prior to her going to the Dardanelles during the 1914-1918 war. He was now a lieutenant and was in charge of a phase of communications planning concerned with shipping to and installing apparatus at Mauritius. We had dinner together on a couple of occasions and I was able to help him to some extent regarding up-to-date developments. He told me he had been retired for some time and had lived in the country somewhere in Norfolk. He had mellowed and was a reformed character. He sailed for Mauritius on the S.S. Umvuma with some of his stores and lost his life when she was sunk.

We repaired defects and calibrated several ships in the area until on the 9th of August, 1943, I was given half-an-hour's notice to join H.M.S. Redoubt and proceed to Kilindini (Mombasa), where units of the Eastern Fleet were assembled. Lieutenant Atkinson, R.N.V.R., (later appointed H/F D/F Officer, Eastern Fleet), also took passage. Here I again met Lieutenant-Commander Roper, who had been in hospital at Mernskirk when I was there and whom I had last seen in the Clyde Estuary. We called at Diego Suares in Madagascar and I sent a note to Mr. Welton from there. We duly arrived at Kilindini and I joined the Ward Room Mess there (Ganjoni). I met Lieutenant Kilburn, whom I had last seen when I corrected H.M.S. Norfolk's D/F outfit prior to the excellent work she did with it in shadowing the "BISMARCK" and the "PRINZ EUGEN". I pointed out the requirement for rescue tugs to have D/F and eventually Mr. Morse, the Marconi Company representative, filled this requirement. I met Lieutenant-Commander Mortin and Lieutenant Lloyd and was introduced to a Mr. Newman by Lieutenant Lloyd in regard to a requirement at Tanga, the ex-German port in Tanganyika. I subsequently made several flights, mostly in a "Walrus", with Flight Lieutenant Hill as the pilot, from Mombasa to Tanga and back. Eventually it was arranged that we would use the White House, the most suitable property, to house our equipment, and we would place a beacon tower adjacent to it one hundred feet high to accommodate the aerial for a V.H.F. transmitter to assist in homing aircraft, as Tanga was being developed as a very big Fleet Air Arm base. I also located, in the first instance from the air and later by ground survey methods, a site for H/F D/F, about one mile north from the airdrome. I remember contacting Mr. Clarke of the local light and power authority and arranging for a seven-kilowatt, 440-volt, 3-phase supply for the White House.

I had several interviews while at Kilindini regarding D/F fittings and calibration requirements and carried out some experiments with H.M.S. Redoubt. I met Commodore "D" on the destroyer "NAPIER" and answered his questions regarding D/F matters. I was then informed by Mr. Frost, the Naval Stores Officer, that equipment for which I was waiting at Mombasa, would not arrive for a further ten days at least on the S.S. "CITY OF DUNDEE". I met a civil engineer Mr. Waddington, who had been a fellow passenger on the "ARGENTINA", had dinner with him in the Dockyard Officers' Mess, and talked about the stresses on the tower at Tanga.

As an example of the ebullience of high spirits at the time, one evening I was returning to my cabin in Ganjoni under darkened ship conditions.

I was walking on the sidewalk close to my destination when I was seized, dragged into an adjacent room, and made to sit on a chair where two other victims were seated nearby.

We each in turn were given a vigorous shampoo with "ENOS" and then were obliged to drink copiously of the stuff. This stunt was arranged by "Toothy" (a Naval Dental Surgeon). The officers W.C.'s were in great demand till about noon the next day. It seemed that dentists, when transformed into Naval officers, were usually the ring leaders in these types of escapades. They did a lot of good and released the tensions of the times.

Swahilis, natives of this part of East Africa, were employed as servants for the officers' quarters. They were generally clean, cheerful and intelligent. The young fellow who looked after my room was quite bright but could only say a word or two in English. I managed to gain his confidence to some extent and eventually I persuaded him to bring his bow and arrow along for a demonstration in the open not far from camp. He was obviously very skilful with his hunting equipment. I had a shot or two with his bow and arrows. It was quite similar to the outfit that I had made for myself, using a willow branch for a bow and reeds tipped with elder as arrows, when I was a boy in Norfolk, but, of course, these arrows were much more lethal. The worst things in the adjacent bush were the snakes. There were a couple of casualties in the men's quarters, black mambas doing the damage.

I now took advantage of a wonderful opportunity and as my stores would not be available for some time, I got permission to accompany the Admiral's Secretary, the Signal Boatswain and the Warrant Telegraphist for a week's trip up country. We went to an estate called "Manunga" belonging to Colonel Murray. Its location was about thirty miles from Naivasha, which in turn was about thirty miles beyond Nairobi from Mombasa. Colonel Murray, originally Australian, had joined the British Army and had served on the North West frontier in India. He was growing and processing pyrethrum and coffee and had some cattle and polo ponies. He was occasionally annoyed by losses incurred by leopards and the occasional old lion. This was not surprising as his property was on the edge of the Rift Valley. Although on the Equator, the elevation was such that a fire was used in the living room at nights to maintain comfort.

We obtained guns and ammunition and went into the bush where we had glorious views of herds of wild animals from the edge of the bush. Zebra were the most common. Congoni and various types of antelopes were in groups of thirty or forty, their leaders fairly prominent and the lonely-looking jackal attending each group. The gazelles were strikingly beautiful and formed smaller groups on the outskirts. Lions, leopards and wart hogs were plentiful in the area, but buffalo were further off and we did not see them at that period.

I went alone into the bush with a Masai Wanderobo as guide, and used the hunting experience that I had acquired in Canada. I got a beautiful reed buck for the pot by stalking about a mile through the bush against the wind for it. The routine I followed was to go to the taking-off place by pony with my Wanderobo friend, then turn the pony over to him and proceed alone. He would stay about three or four hundred feet away down wind and only come to me when I blew a whistle.

On one occasion I was proceeding along by the side of a gulley when a wart hog jumped out of it at right angles to my path about forty yards away. I took careful aim and fired. I was using a lethal ball in the smooth bore side of my double barrelled shot gun and, sure enough, he went down, hit just behind the ear.

The Wanderobo was highly delighted that it only took the one shot to do the trick. He took the head back for me. I had the reed buck skin prepared and the wart hog skull cleaned and sent them to my home from Mays, the gunsmiths, in Nairobi. The Wanderobo and I got on very well together and he gave me his most valued hunting weapon when we parted, a sort of knob kerry, beautifully balanced and made from an African blackthorn root and main stem.

Incidentally, I was scared stiff one day. I had crept quietly along a trail by the edge of the Valley, to get close to some Grant gazelles and was concentrating on the open beyond the fringe of the bush, when suddenly there was the deuce of a racket. I turned, to see what I thought was a lion running off into the thick bush. Whatever it was, it had been waiting by a bush just to one side of the trail. I was very lucky that it did not attack me, as it had been only a matter of eight or nine feet away, hidden by the bush, and I only had a .22 rifle with me on that occasion. I was so scared that I walked out over the open to where the remainder of our party had left a truck, after killing a zebra and taking part of it away that was wanted for some special purpose. There was no one in sight so I got into the cab of the truck. I then realised that there were scores of buzzards and a jackal a little way off, obviously waiting to clean up on the zebra remains but afraid to close in while the truck was there. I moved the truck a matter of thirty yards or so and saw such a sight as I have never seen before or since. The birds gorged until they appeared to be drunk and too loggy to fly and in a relatively short time had cleared up everything edible. The jackal managed to get the odd tidbit and soon nothing was left but bone. It was an interesting but not an edifying sight. It was a pity that I did not have a movie camera.

I was the only one of our party that got anything in the way of game and I think that was because I went by myself. I do not like the idea of shooting wild animals and would much rather take pictures of them. I think it would indeed be a crime to set up a modern rifle, with telescopic sights, and shoot from the cover of the bush. I had been requested to get a reed buck for the pot if I happened upon one and the wart hog was considered fair game. He was bigger than the one on show in the Museum in Nairobi and a really ugly customer.

We returned to Mombasa on the 14th of September, and I spent more time at Tanga till the 20th. This was a bad area for malaria and two of the W.R.N.S. who had been passengers with me on the "ARGENTINA" died. It seemed such a waste of good young lives. The incidence of malaria in the airport area had been very substantially reduced and there was relatively little risk there, but the girls had quarters in the town under separate supervision and were stricken with the disease there.

Next I sifted out my stores and arranged their division between Durban and Ceylon, as Eastern Fleet Headquarters was being moved back to Ceylon. It was obvious that all the work done at Tanga would now be dropped and efforts would be made to build up strength in all departments in Ceylon and India.

I joined H.M.S. Adamant on the 27th of September for passage to Ceylon. This was indeed luxury travel, as she had lots of accommodation, which would normally be used for the crews of submarines and spare personnel when she was on her station. She trundled along with her escort of destroyers at fourteen knots and we arrived at Colombo on the 8th of October, 1943.

On arrival I had meetings with Captain Laird, Lieutenant- Commander Martin, Lieutenant-Commander Jacombe and Lieutenant Atkinson. I took up residence in the Grand Oriental Hotel. I did some fault locating and repairs to D/F outfits on ships in the harbour. Colombo harbour was about a mile square and afforded no space for anything but berthing ships, so calibrations were not done there.

It was now decided that I should go to Bombay to make arrangements re D/F matters there. I took passage on the "CAP TOURAINE", a merchant ship that had been scuttled at Madagascar by the Vichy French. Since she had been raised and put back into service, she was the home of swarms of mosquitoes. This was the only ship that I was ever on where this was the case. All hands on board were severely bitten continuously, but we were assured that there was no danger of malaria from this lot. As we were carrying troops, anything to take their minds off the heat and the monotony of the voyage was welcome. I was induced to give them a lecture and I chose the subject of the Arctic. I had some photographs of ice conditions up there and passed them around. It certainly was a contrast with the conditions prevailing on the "CAP TOURAINE".

We arrived at Bombay on the 22nd of October, and I arranged through Captain Curtis, Naval Officer in Charge, to use the Royal Indian Navy Ship "NILAM" for calibrating work. I accordingly transferred my equipment from the "CAP TOURAINE". On the 23rd and 24th of October I calibrated the destroyer H.M.S. Nepal and was installed in a temporary office in the headquarters there.

On the 26th of October, I went on board H.M.S. Battler and made a preliminary inspection regarding the later installation of H/F D/F. She was what had become known as a "Woolworth Carrier", a merchant ship hull of about five thousand tons, completed with a flat deck overall as a smaller-sized aircraft carrier. I was always under the impression that to cope with flying under the conditions prevailing on these small carriers required extra skill. The maximum speed was no more than eighteen knots, which meant difficulty in taking off. Also the motion in a moderately rough sea would make for awkwardness in landing on, and the flight deck must have looked mighty small from the air. I had always had admiration for the flying types attached to the Navy, from my first associations with Commander Samson before the 1914-1918 war to the present day with jet-propelled aircraft, but I have particular respect for those on the small carriers.

When I had finished my preliminary inspection, I asked the Chief Petty Officer Telegraphist how his M/F D/F was working, and we went along to the office. He called his Petty Officer Telegraphist who was responsible for the operation of the outfit, and I was told that they had carried out an exercise in the Red Sea on their way from Britain.

When they sent a boat away with a radio transmitter on board and tried out their M/F D/F, the results had been utterly confusing. I made a simple test to check whether the pointer indicating the bearing was correct and found it to be about ninety degrees out. The correction was a simple matter. I showed them how and wrote out step-by-step instructions for operating the outfit. At this point the Signal Officer appeared and I explained how D/F was very often not understood by personnel, and instruction in it was sketchy. I mention this here to emphasize something that happened a little later on. I did not hear of the episode till I went on board at Durban on the 9th of May, 1944. It appeared that four Swordfish aircraft were away from the ship in the Indian Ocean area when they lost radar contact and were in danger of being completely lost. Fortunately for them, they were able to transmit on medium frequency. They were given perfect bearings by "BATTLER" and homed with very little fuel left. I was greeted by all with quite a welcome. They were as keen as mustard on their D/F, especially on their new fitting of H/F D/F. To cut a long story short, they had a very good installation indeed and had success in a later episode, when they got bearings on a German supply vessel down south near the ice and "REDOUBT" accompanied them for the kill. Of course, it was a particular pleasure for me to meet any of them subsequently.

Now to return to Bombay and continue. I met Lieutenant Somerville, Captain "D" 11 Signal Officer, on H.M.S. Rotherham and answered his questions regarding D/F. I did the usual lot of repair jobs and worked in my office for a while preparing reports. I was summoned to attend a meeting with Admiral Somerville, the Commander-in-Chief, Eastern Fleet, at which policy matters pertaining to D/F were discussed.

I then calibrated H.M.S. Derg on her M/F D/F and joined her for passage, in company with H.M.S. Kale, escorting some merchant ships from Bombay to Aden. A peculiar episode occurred en route. We were within a days sailing from Aden when "KALE", which was senior officer, signalled by Aldis Light that an SOS had been heard from the S.S. "SAM BLADE", which was proceeding independently to Aden and, according to her position, was some way astern of us. I went below and checked on the D/F outfit as the SOS was still going on and, of course, I took bearings. Well, nothing happened for about half an hour. Then "KALE" made a message detaching "DERG" to investigate, as "KALE" radar was defective and under repair.

We reversed our course and made for the position indicated. I told the Captain that he appeared to be heading about  $4\frac{1}{2}$  degrees to starboard of the line of bearing that I was getting by D/F. He was in a quandary and pointed out that the position given by "SAM BLADE" was so and so. He checked his track on the chart and said he had no option but to proceed on that course. At this time I was looking over the dodger and could just see a ship, hull down, on the horizon,  $4\frac{1}{2}$  degrees on our port bow, and the Captain agreed to close her and verify if it was the "SAM BLADE".

This we did and it was. We proceeded to drop lots of depth charges where the submarine was last seen, but saw nothing of her. There was a "Catalina" aircraft with us, but they knew nothing of what was going on till later. Obviously, if the pilot had been told, we should have had a submarine in the bag. Indeed, if he had looked astern of our convoy, he would have seen the gun flashes as the submarine was firing on the "SAM BLADE". I subsequently made a strong report that all aircraft over the sea should keep watch on the merchant ship wave length of 600 metres.

On arrival at Aden I was kept busy, calibrating all sorts of ships, such as H/F D/F on the frigate "DERG", the ex-United States Coast guard Cutter, H.M.S. Plym, H.M.S. Teviot, H.M.S. Bann, H.M.S. Banff, H.M.S. Landguard, H.M.S. Helford, and H.M.S. Trent.

The Commodore at Aden was Commodore Larkin who was renowned as a gunnery expert and who was familiar, of course, with the use of radar for range finding. He heard me proclaim one day that the radar then carried on the Catalinas was ineffective and that a pilot could see a submarine for a far greater distance than his radar was capable of. He took me up on this point and pointed out that the distance that the object was picked up by the radar was the square root of the height divided by two. For example, if the aircraft was at a thousand feet, it would be 33 over 2 or 16 ½ miles. I said that this was fine by the book but not in practice, so he sent me on a Catalina convoy flight to verify. It was a most tedious affair, the flight lasting 20 ¼ hours. The pilot and all other pilots that I asked agreed with me that I had been right. I submitted reports via Commodore Larkin to the Air Vice-Marshal at Aden, and they were very courteous about it all, especially the recommendation that steady watch should be maintained by aircraft over the sea on 600 metres. Being a civilian in these circumstances was sometimes a little awkward, but perhaps it was fortunate for me at times. However, I had and have every respect for sensible authority.

I spent a period in the R.A.F. Hospital at Aden, from the 10th of January to the 9th of February, 1944, as I had to have an operation performed on the 15th of January.

I then carried out a series of calibrations at sea for H.M.S. Quilliam (Captain "D" 7) and H.M.S. Raider. After an unsuccessful anti-submarine hunt on "RAIDER" and some convoy escort duties we returned to Aden. I should mention that Captain "D" 7 Signal Officer was the Marquis of Milford Haven. He was interested in H/F D/F developments and took some part in calibrating, together with Mr. Anderson, the Warrant Telegraphist.

On the 29th of February, 1944, I joined H.M.S. Queenborough and on the 1st of March we proceeded to sea, escorting H.M.S. Maidstone to Ceylon. We were diverted to Trincomallee on the 6th of March and we had some anti-"U" Boat action, dropping depth charges during the 6th and the night of the 6th-7th. We arrived at Trincomallee on the 10th of March, 1944. I calibrated "QUEENBOROUGH" on the 11th. I then transferred to another destroyer, H.M.S. Pathfinder, on the 12th of March and sailed for Madras after calibrating.

There, once again, I renewed my acquaintance with H.M.S. Redoubt. We sailed from there in company with "REDOUBT" and "JUMNA", escorting troops to Chittagong on the border between India and Burma. The Japanese were in Burma then and a state of tension was evident as the "PATHFINDER'S" 4" high-angle guns were kept manned and elevated. Chittagong was not my idea of a place that I would like to live in. Disease was prevalent, and the sea in the approaches was muddy and our screws disturbed the bottom. It was a pleasure to get back to clean deep water.

We sailed at high speed for Vizagapatam, where we refuelled, and again at high speed (around thirty knots) we returned to Trincomallee in time for "PATHFINDER" to proceed with the Fleet, which was commanded by the old first war flag ship, the battleship H.M. S. Queen Elizabeth. She proceeded to carry out the first sea raid on Sabang, which was near the beginning of the end for the Japanese. I was ordered to proceed to Colombo from Trincomallee and reported to Commander Bonham-Carter on the 21st of March, 1944. I once more took up residence in the Grand Oriental Hotel. I again worked on several ships in the harbour and was told that I would be sent to Durban, when convenient, to fit H.M.S. Battler with H/F D/F.

Among the ships that I worked on-during this period were "ATHELANE" and "BEGUM" (small carriers) and the frigates "CANVERY" (R.I.N.), "LOSSIE", "TAFF" and "SPEY". These last four ships had been very successful in anti-"U" Boat work, sinking and taking prisoners, and they were very keen indeed on their H/F D/F, which had led them to their successes.

After a few more jobs on Naval and merchant ships, I was accommodated on the cruiser H.M.S. Newcastle, which had trouble with her fresh water system and had to proceed quickly to Simonstown for repairs. We called at Mauritius on the 29th of April for fuel and proceeded right away, arriving at Simonstown on the 3rd of May, 1944. I did some investigation and repair work in Simonstown and Capetown and then went on to Durban, where I booked in at the Grand Hotel and commenced work on the "BATTLER" on the 9th of May.

Mr. Welton had been moved to Malta for Mediterranean duties and two new civilian officers had been sent to Durban - Mr. Monteith, ex-B.B.C. T/V engineering service, and Mr. Isles.

I helped them to establish themselves in their Durban and Cape Town connections and did more ship fitting and calibrating work, including the completion of "BATTLER" and work on the destroyer "PALADIN". False Bay was investigated as a possible calibration berth but was found to be unsuitable for H/F D/F calibrations.

H.M.S. Paladin was about to sail for Ceylon on completion of fitting work, but there were no ratings available at that time for manning her newly installed H/F D/F outfit.

Since I was under instruction to return to Headquarters in Ceylon, I suggested that I could sail on "PALADIN", and I might do a spot of good with the H/F D/F equipment as there was some "U" Boat activity in the area en route. This idea was approved locally and I went on board, but a message arrived from the Commander-in-Chief, Eastern Fleet, ordering me to return by air. I therefore proceeded to Durban from Cape Town and had my shots in the arm all over again, including one for yellow fever this time, and put my gear in a sealed container in care of a British merchant ship to be delivered to me at Ceylon at a later date.

I left Durban on the 12th of August, 1944, by flying boat and proceeded in approximately four hour laps via Lourenco Marques, Victoria Falls, Thompson River, Khartoum and Luxor to Cairo. We were treated to the sight of game now and again en route, especially some prides of lions and lots of hippopotamus wallowing in a river. Some R.A.F. personnel, in civilian clothing because of the neutral territories that we passed through, and Princess Fahsia (or some such name), with her personal attendant and heaps of luggage, were my travelling companions.

I stayed at Sheppard's Hotel, had a conference with some authorities there, and then proceeded on a big plane via Baghdad to Karachi, sleeping in the open on the desert one night.

At Karachi I was embarked as the only passenger on a small plane with a civilian pilot. He was an Indian and a very interesting man. He had spent all his money on the acquisition of a plane before the war and had proceeded by short hope from India to Croydon, England, and there he had obtained his "A" License. On return to India he had joined the Tata Airline service. We flew via Bombay and Hyderabad, staying over night at each place. It was very interesting indeed, and my pilot was able to point out to me things of real interest. I was sorry to come to the end of my journey with him at the Race Course near Colombo, Ceylon.

Unfortunately, I had a few days of M & B treatment for a bad cold which I developed in South Africa, mainly due to the fact that I was wearing tropical clothing and it was cold down there. The effects lasted practically through the flight. I was not sick in the air but could not keep food down at the various places after landing. It was most embarrassing. However, I arrived back at Headquarters and continued with the same sort of routine as before. After spending some time in Colombo fixing up bearing indicators and planning the organisation for Trincommallee, I went on to Trincommallee by road with Sub lieutenant Murray, leaving on the 27th of August and arriving on the 28th. I was then given a berth on H.M.S. Adamant and took my gear on board. She was now performing her proper function as a submarine depot ship together with H.M.S. Wolf and an ex-Chinese river craft and the old S.S. City of London. She was crowded with submarine crews, work shops and staffs, and one could sense the accelerated tempo in the pursuit of the war activities. I was impressed by the wonderful spirit displayed and the unlimited pranks that submarine officers carried out in the obviously necessary effort to release their tensions. I was accepted as OK, mainly because of my early associations with submarines, and was often enticed to take part in their frolics. "Liars' Dice" was a favourite game.

There were several outstanding characters. I will never forget the morning when Lieutenant-Commander Hexlett came alongside after an arduous but successful patrol and placed his prisoners on board. He had sunk a German submarine in the Malay Straits on this occasion. He had taken part in the midget submarine raids on the "TIRPITZ" in the Norwegian fiord and had distinguished himself on more than one occasion in the Eastern Fleet zone. He was now made a Commander at the age of twenty-eight, which was a most unusual procedure for the British Service. I worked on calibrating several submarines and carried out some experiments on H.M.S.

Thorough with a portable H/F D/F outfit which would be useful in assisting Commandos to be picked up when returning from their exploits from behind the enemy lines. These Commando-trained officers were of course accommodated in the Ward Room, and there was a lot of legpulling between them and the submariners.

On the 29th of August, 1944, I lunched in the Warrant Officers' Mess on H.M.S. Wolf. Mr. Davis, the Warrant Telegraphist, kindly arranged for me to meet Chief Petty Officer Black, who brought me first hand news from my wife at Rothesay, Isle of Bute, where he had been stationed on the Submarine Depot Ship "CYCLOPS". This was a wonderful break as I did not receive my mail from her, despite the fact that she wrote regularly. Her letters, registered and otherwise, were returned to her for some reason and she was unable to reach me, but my letters got through to her so she knew that I was OK. This was a very bad period for me, but I had the comforting knowledge that Rothesay was a fairly safe place. I was without a letter for approximately eighteen months.

Among the jobs that I tackled at this time was one on the battleship, H.M.S. Howe, which was fitted with a special type of H/F D/F designed for large vessels which had broken down. It was OK in the technical sense but ridiculously fragile in the physical one. There is no doubt that I could have made it more robust and I was quite keen to do so, but I was not allowed to proceed with her to Australia, although I considered that I could have done the job during the trip. I sailed on her from Trincomallee to Colombo but that was as far as I got.

I had plenty of variety in my work during this period, with submarines, cruisers, destroyers and merchant ships. For instance, I was on the cruiser H.M.S. London on the 3rd and the 13th of October, 1944, and diagnosed her M/F D/F troubles. I came across one very unusual type of trouble on the S.S. Ting Sang. She had seen lots of service on the China Coast, and her master told me that he could only get bearings at close range. This seemed peculiar to me as she had a good outfit. Again this was a case where she had passed inspection at all sorts of ports, but her operators had never taken proper action such as insisting on the replacement of the set or getting the trouble rectified. The trouble was hard to locate, as it originated in the Marconi factory, where it had also passed inspection. It was simply that one coil in the receiver had its leads reversed and sealed in the wrong way round, which prevented the receiver from receiving continuous wave signals. When the trouble was rectified, the master was highly delighted when I demonstrated bearings to him taken over distances of approximately five hundred miles. I was persuaded to go to dinner on several occasions on board his ship in his company. He had the best of arrangements and most luscious meals, as only an old China Coaster could.

From calibrating aircraft carriers, such as H.M.S. Indefatigable, checking equipment through all frequency ranges from M/F to VH/F on all sorts of ships, dealing with commercial service equipment and ships of various nationalities, to submarines and occasional shore station job - it was good experience with lots of variety. It entailed lots of small boat work, transfers at sea, and encounters with all types of personalities.

The strain at times was severe, but any effort within one's capabilities was worthwhile to win the war and, generally, all those that I came into contact with were imbued with that spirit. The liaison officer who worked with me during the latter part of hostilities, Sub lieutenant Thomas, was one of these. I remember one occasion when he had just acquired a good wrist watch for a considerable sum and he was working on a carrier's mast with me when the thing just fell away from his wrist and over the side. I wonder if he settled down in his job running his own tailoring business after the war. I would like a suit made by him.

All space available on submarine depot ships was now required so I went to Cod Bay Camp, which was a few miles from the Dockyard on the edge of the bush. There were a few kadian huts (walls and roofs made from interlaced coconut palm fronds) with no windows or screens, which were intended to provide shelter for survivors and groups for onward passage. As the sides were open there were lots of bugs of all sorts--scorpions and tarantulas were plentiful. Water for bathing was turned on once a day early in the morning, and this ran into a big trough. The space in the front of the trough was divided by upright partitions. The drill for washing in the morning was to get there early before the water was too dirty, grab an enamelled bowl, and fill it with water with which you washed, while it was perched on the ledge alongside the trough. You next grabbed one more bowl full and rinsed with it. I managed to get in lots of swimming in those days and wore nothing from the waist up, and so I kept clean. As I was usually the first in the mornings, I often found small scorpions in the bathing space and disposed of them prior to washing. I knocked a large tarantula off the back of an officer in an adjacent room to mine as it fell down from the entwined leaves forming the roof--he was lucky to escape without being bitten. Malaria was still prevalent in this area, so of course we all took the necessary precautions. I was fortunate during this period as I was kept busy on my job. A boat would fetch me and take me out to sea beyond Trincomallee harbour almost every day. There were lots of big monkeys around who would take possession of a hut if it was left vacant and who objected to being driven off once they had staked their claim. The camp was used as the Headquarters for Coastal Forces. The R.N.V.R. officer personnel were preparing their motor launches and drilling in preparation for their forthcoming attacks on the Japanese along the Burma Coast. They were mostly professional types - lawyers, accountants, etc. - and were very splendid officers, subsequently performing with distinction against the Japanese.

Conditions generally were rather bad and we had some nasty incidents. Our Commanding Officer, Lieutenant-Commander Duval, apparently physically sound and a well-respected and fine- looking officer, blew his brains out. I had the nasty job of taking the inventory of his effects. During this same period a Stoker went into the bush and hanged himself.

These incidents accentuate the fact that life was not very pleasant at that place. The natives were to some extent pro-Japanese. They set fire to our camp on two or three occasions, starting the fires at the edge of the bush and letting the wind do the rest. On one occasion they managed to burn out the Fleet Torpedo Store, which entailed the loss of supplies of our most essential weapon for a period.

The Supply Lieutenant for our camp, Lieutenant Babs, who came from Birmingham where he had completed his time as an articled clerk in a law firm, had wangled the use of a Ford 15 cwt truck for running into the Dockyard area when necessary. We sometimes managed to get to Shark Bay and get a swim by means of this truck. We would take a native with us who would climb the coconut palms and get us a coconut when we wanted one. I took this truck into the Dockyard one day and was proceeding in the relatively congested area near the Dockyard Gate when there was quite a bang - the top came off the radiator and steam poured into the cab via the foot pedal holes. The truck had been prepared for working in water conditions and was sealed off accordingly. What had happened was most remarkable. Somehow a blockage had occurred in the water circulation system, a piece of the engine casing had given way with the expansion of steam, and the steam could only escape via the foot pedal holes. I was in quite a quandary as I was in the middle of a lot of traffic and was blinded by the steam, but I managed to pull up at the side of the road. The water that came out of the radiator where the cap had blown off sprayed me, but it was not hot enough to hurt. The steam from the foot pedal holes, however, burned both my ankles severely. I got out and cursed the thing to blazes, then went to the doctor and from there entered the hospital on the 21st of June, 1945.

I went to Diyatalawa and Bandarawella on sick leave as the ankles would not heal down at sea level. I soon recuperated up there. There is a tremendous difference between working at sea level and working up in the hills in Ceylon. Tea is not grown at altitudes of less than three thousand feet and the climate at that altitude is ideal. However, hostilities with

Japan were now coming to an end and I heard that the "EMPRESS of SCOTLAND" was sailing for Britain. I figured that a trip home on her would give my ankles a good chance to completely heal, so I wangled it through Headquarters at Colombo, cutting my sick leave short.

During the periods that I spent at Ceylon I submitted all my work reports to Lieutenant-Commander Jacombe. I was astounded one day when he told me that he remembered seeing me during my Pachena Point, Vancouver Island days. He had been at Pachena Bay with a party of experts, testing the efficiency of short wave radio across the Pacific and deciding whether a new cable should be laid or whether short wave radio could be relied upon to take on the extra load of traffic that had built up. Another wireless expert, who was also at Pachena Bay during that period, was a most remarkable officer, the Captain of the "PORTE QUEBEC", a merchant ship which was taken over and converted into a minelayer at Middleton-on-Tees. He recognised me as I crossed the gangway when I was going on board to see to her D/F installation He had been at the Signal School at Portsmouth and indeed, I believe was the Captain of the Signal School.

Anyhow, he had retired as a Captain, R.N., then took a course in medicine and became a doctor with a good practice, and now here he was, the Captain of the minelayer, H.M.S. Porte Quebec. The Sick Bay staff or the W/T people on that ship would have a slim chance of putting anything over that was not strictly correct. Lieutenant-Commander Jacombe had a splendid reputation as a Communications expert and was responsible for a great deal of development work at Ceylon.

I must refer to H.M.S. Christopher once more and her captain, Lieutenant Peters, when I was on her during the 1914-1918 war. As soon as I heard of the exploit carried out by H.M.S. Lulworth, in which the boom was crashed at Oran in North Africa, and the cool, heroic action of her Captain, I wrote to him care of the Admiralty. My letter was returned. It was indeed Captain Peters and he was awarded the Victoria Cross for this action. My letter was returned because, although he survived the shellings on the "LULWORTH", he had been killed in a subsequent aircraft disaster.

We made a good twenty-knot passage to Liverpool on the "EMPRESS of SCOTLAND", via the Suez Canal and the Mediterranean. Then I returned to my home at Rothesay and from there to Haslemere, Surrey, where I was appointed to H.M.S. Flowerdown, near Winchester, where I took part in some engineering trials with radio teletype and indeed communicated again with Lieutenant-Commander Jacombe at Ceylon in the course of the trials.

## CHAPTER 18

### Post-war Admiralty Service (1945-1948)

At this time I was employed on work of a confidential nature and eventually was appointed as engineer to look after a group of stations near Land's End. This was very interesting work. I resided at Perranporth for a period of about two years. Then I was informed that all personnel who were over fifty years of age and were not permanent Civil Servants, were to be released regardless of qualifications. This was a bad thing for me. I was told that if I had been at Haslemere, I would have been given a chance for a permanency, as I had been in the Service for nearly nine years. It was not difficult for anyone under forty to get re-established, but when you were well over fifty your chances were practically nil.

I went to Worthing for two weeks leave and looked around. I thought that I had found the solution of my problem when I found that a Sub Post Office was going to be vacated. I went to the District Post Master and told him of my previous experiences at the office at 1 Queen's Road, Wandsworth Road, London, S.W.8, and I put in my application with confidence. I then found a bombed site on Pavilion Road, with a heap of rubble, the remains of a house, still attached to one next door. I asked at the Town Hall who owned it and was told that they had no record, the last taxes had been levied in 1940, the year that the bomb had dropped. I eventually got a lawyer, Mr. Stevens of Bowles and Stevens, to look it up for me and he found that the owners were The Midland and Southern Investment Corporation with offices in York. I told him to make an offer of £1,000, provided that it was subject to War Damage Claim, and I was agreeably surprised when my offer was accepted. The usual routine was followed and it was rebuilt by the firm with the lowest of three tenders, which was more than £2,500. I had hot water central heating included for about extra. I thought that I was well away with a good eight-roomed house with bathroom and kitchen tiled and central heating, but then the disappointment came. I did not get the Post Office, in spite of the fact that I was an ex-Service man and had previous experience. This was quite a setback.

I applied to at least fifty firms for suitable work but had no luck at all. I think that the most ridiculous case was when I went to Cable and Wireless on The Embankment in London. They had been nationalised and were therefore part of the new bureaucracy. I was not able to see an engineer and when I saw the Personnel Manager I was told that, regardless of the fact that I had a patent in radio and a First Class Certificate of Proficiency in Radio, plus all the experiences, including light and power and telephone, the idea of employing me was out of the question as the age limit there was thirty-five years. I told him that I was not interested in their policies re superannuation, as all that I wanted was a job. People in my category were submerged in the mire of this wonderful new bureaucracy.

## CHAPTER 19

### Struggle for Establishment (1948-1952)

I was rapidly becoming desperate. Eventually I bought a newsagent, tobacconist and confectionery store at Shoreham-by-Sea, using the house at Worthing as the major portion of my down payment. I improved this business and more or less settled down to routine, waiting for wartime restrictions and rationing to cease, but my financial obligations were a little too severe and I sold this business to a well-known fingerprint expert from Scotland Yard. After some more abortive efforts in England, I decided that I must do something drastic to get out of the rut. I went to Canada House and enquired as to the validity of my Radio Certificate; they arranged for me to go to the British Post Office authorities for examination. I passed this in a couple of half-days in London and then went to the Business Agent of the Radio Officers Union in Bow Street to get a ship. I explained that I wanted a ship where I would not have to buy uniforms and that I wanted more money than was being paid on British ships. I was given S.S. Fausta, an old merchant ship belonging to the East West Steamship Company with offices in Karachi and London. I signed on at Avonmouth on the 10th of June, 1951.

She flew the Pakistan flag. Her officers were all German with the exception of myself. The Captain was a Prussian and had been a prisoner-of-war in both wars in the hands of the British. The Chief Officer was taken prisoner by a destroyer in action about seventeen miles off Brest. The Second Officer was a studious type and had been a prisoner-of-war in the United States. The Third Officer was a typical Hitler Youth and had been taken prisoner during the final phases of the war when fighting at Brest. I advised him to get a job in a Canadian lumber camp. It would have done him the world of good. The Chief Engineer had been on the "TIRPITZ" in the Norwegian fiord. He and the other three engineers were all very skilled and were experts in high pressure steam turbines. These engineers were being trained to man other ships of the Company when they were acquired. Listening to their stories of life during the Hitler regime and the tough times that they had after the collapse of Germany was very interesting. Some of their homes were now in East Germany and some in the Western part. They were indeed thankful to get jobs at sea once more, but their home connections, with shortages of this, that, and the other, were a constant worry to them. The seamen were Hindoos, and the Engine Room was manned by Moslems under their respective Serangs. The Kashmir dispute was going strong and the Hindoos and the Moslems had to be restrained from violence towards each other. The Mess Boys were from Goa and were Roman Catholics as Goa was Portuguese. I was the only British-speaking man on the ship.

This would have made an ideal situation for a Conrad or a Forrester. However, it suited me, as I intended to get back to Canada as soon as I possibly could and was putting in some sea time now to keep what little capital I had intact.

We proceeded from Avonmouth to Liverpool where we loaded cars and general cargo for West Africa. The ship was chartered by the Palm Line. We eventually unloaded our cars and cargo at Takoradi, Accra and Lagos and proceeded via the Escrivos Bar up the rivers, spending a couple of days steaming inland to such places as Burutu and Degama. We reached a point inland where there was a wonderful modern factory, preparing plywood from hardwoods and other trees such as mahogany and walnut. This was made into panels and bundled so that two men could lift the loads for shipping. Some of these bundles were marked for shipment to places all over the world. The reason that we had to go so far inland was that we needed to reach sweet water, beyond the effects of the salt water, so that the logs which we took from the log booms, which were brought alongside by the natives, were sound. It was weird going mile after mile with nothing but mangrove swamps on either side, the ship's stern brushing the mangroves as we rounded sharp bends and the wheel in the hands of a native wearing a "G" string and very little more.

There was the rare native village, built on stilts, where the inhabitants lived on fish from the river. Any sort of cereal was a luxury to them. They would struggle as hard as possible to beat each other to get bread which was thrown overboard and there was a real free for all when empty pop bottles were thrown to them. These were indeed prizes, as they represented cash with which they could buy grain on their next visit to a trading post up the river. Once in a while we saw a Witch Doctor's little building alongside the river and we were told that these places were strictly taboo. The water was muddy and therefore opaque; very little swimming was attempted by the natives as they were scared of the big snakes, as they called them. Occasionally there would be a floating island with tall grass growing on it, a piece broken away from the bank somewhere up the river. The natives gave a wide berth to these patches, as they were the favourite haunts for pythons. Watching the natives loading logs was an education. They struggled and strained to manhandle these huge trunks of trees into position in the hold, some of the pieces weighing as much as fifteen tons, which only our "Jumbo" boom could handle. We eventually left the "Creeks" and returned with our load of logs, ground nuts, and cocoa, to Britain.

The radio equipment was really first class. The transmitting and receiving gear was as near perfect as possible, and the ship was equipped with D/F and two echo-sounding outfits. The Captain used his D/F regularly and it proved to be quite reliable.

I decided to stay on for one more voyage at the request of the Captain and the Owner with the proviso that I would be returned from Karachi by air in time to catch my ship for Canada.

It was understood that the "FAUSTA" was going to Karachi at the end of this voyage and would be trading with the Far East from there. We went round to London and loaded 3,500 tons of cement and cars and general cargo for Mombasa. During our loading period in London, before sailing for Mombasa, the owner had very kindly arranged that the German officers could have their wives on board, so I also arranged for my wife to spend a couple of weeks on the ship as this was an unique opportunity for my wife to see the Docks at first hand and to meet the German ladies.

The barrier of language was a very difficult one, but everybody managed somehow and my wife was able to help them all with their shopping and sightseeing, we all got together in one another's cabins and the period was altogether enjoyed by all. It should be realised that the German officers expected to be away for a period of at least three years. Relationships with German ships on a regular Hamburg run were soon established, and special brands of things such as beer were obtained. This period came to an end, tearful goodbyes were said and the fraus, some from the Eastern Zone and some from the West, returned to their homes. There were all sorts of good things stowed away, which lasted for weeks after we sailed.

We proceeded via the Mediterranean this time and through the Suez Canal in convoy. We laid in Mombasa for three weeks, which enabled me to look over the old spots. How different it all was. It had reverted to the ordinary town with its stores and everything in the way of trade being run by Indians. The plans for going to Karachi at the end of this trip were changed and we went to Mauritius, where we loaded sugar for Britain. Mauritius has a really polyglot population. About 2 ½ percent of the population were white and the others were of several nationalities - Indians, Kanakas, Malays, etc. The language spoken was French, and the economy was dependent upon sugar growing and marketing.

In this area cyclones are expected annually. As we left Mauritius there was a nasty one a little way off. Our engines were in rather a bad way, and it was a sight to see the thrust bearing jumping up and down with each revolution. We could not really take proper evasive action as our speed was only 8 ½ knots and we were caught in rather bad seas on the edge of the cyclone. We passed once again through the Suez Canal, being treated in a very friendly way as we flew the Pakistan flag and were therefore

presumably Moslem, the same as Egypt. I have never seen more depravity in human beings than in Egypt, but this of course does not mean that all are alike. We fuelled ship at Algiers and I was most impressed by the efficiency of the port with its wide approaches to the sheds and the town in the background, tier on tier up the hills. It could be an ideal place in an ideal setting on the Mediterranean coast. What a pity it is that such things are not allowed to be so.

We limped the rest of our way home. As we passed Ushant there was SOS activity about fifteen miles from us and our Captain had an anxious moment or two, but local shipping went to the rescue and all was well. The ship discharged at Greenock and that was where I was paid off.

A word or two about the human side of our voyages. The Hindoos and the Moslems more or less agreed that they disliked their German officers more than they did each other, which probably saved some bloodshed. One day one of the Moslems in the Engine Room took the steel claw which was used for opening valves and usually hung on the rung of a ladder in the Engine Room, and with this dangerous weapon they attacked the German engineer on watch. The engineer, fortunately for him, slipped on the plating and fell down a step, thereby probably saving his life. He sustained a glancing blow on his cheek and breast but was not seriously wounded.

Before the attack could develop further, the Engine Room Serang and another of the Engine Room men overpowered the attacker. This led to having a report prepared by the Captain and statements being taken. Hardly anyone could understand anyone else and eventually the Engine Room Serang managed to convince the Captain via the Chief Engineer that it was better to drop the case.

The crew then, both seamen and the black gang, arranged a petition whereby they requested to leave the ship, as they did not like serving under German officers. They wanted to go back to the British India Line with British officers. Altogether, the atmosphere was a little strained. I really think that I was the only one that got along well with everybody. I used to rig a speaker facing outwards at the port hole in my office and tune it in to the peculiar noises that emanated from radio broadcasting stations in India. That is to say, the noises sounded peculiar to me. They were greatly appreciated by the crew, however, though sometimes they would indicate displeasure and I would turn the dial to other stations till they smiled. This obviously meant that I had the Moslem programme on sometimes when Hindoo was wanted or vice versa. I could not tell the difference. I thought that the poor devils should have any little pleasure that I could give them.

The eats, on the whole were not too bad, with the exception of the breakfast cereals, which had lots of livestock in them. Anyhow, if the meal was unpalatable, I usually managed to get some curry from the Engine Room Serang. He was a fine type. Indeed the whole of the Moslem portion of the crew lived correctly, in accordance with their creed. I think that the Hindoos also maintained their beliefs and on the whole were quite good fellows.

Bathing was a bit of a problem. There was a bath room with a piece of wood across the bath and a hole in it to rest a bucket in. We had to get one of the crew to fetch two buckets about half full of water from the pump, which was aft near the galley. You soaped yourself with water out of one of the buckets and rinsed off with the other. However, the ship suited my purposes and I enjoyed the experiences. I was able to help both the Master and the Chief Engineer with their reports, which had to be written in English, the official language for Pakistan. I enjoyed many a singsong in the engineers' cabins. I appreciated their difficulties and helped out in any way that I could.

I was paid off at Greenock on the 1st of March, 1952, and proceeded back to Southwick, near Brighton in Sussex. I sold my house for what it had cost me and sailed for Canada on the S.S. Nova Scotia, arriving at St. Johns, Newfoundland, on the 26th of March, 1952.

## CHAPTER 20

### Back in Canada (1952-1960)

We went to Ottawa, where I passed the doctor and filled in the prescribed forms for an appointment in the Radio Branch, Department of Transport, the same organisation that I had been in before but that now was called the Department of Transport instead of Marine. We were expecting to proceed to an isolated station, but I was called over to see some Civil Service Commission people and filled in more papers. Eventually it was decided that the Navy had prior claim to my services, and so I started work on the 5th of April, as a Technical Officer in the employ of the Electrical Engineer-in-Chief (Navy), Department of National Defence, and remained in Ottawa. We were welcomed back to Ottawa by our old friends with whom indeed we had maintained correspondence throughout all our vicissitudes. Mr. Jack Cowan, now a Project Director of the E.B. Eddy Company, a very large pulp and paper concern, put us up on arrival and Mr. Sigurd Lockeberg and family did all they could to make our return as pleasant as possible. We have the greatest affection for all these fine people and hope to see them again soon.

The intimate details of my work I cannot divulge but generally I was useful in shipfitting work where electronics were concerned. Also I was able to assist in matters pertaining to D/F and aerial arrangements and space arrangements in offices. The work involved visiting ships under construction in such places as Lauzon, Quebec, Montreal, Sorel, Toronto, and inspecting development work in conjunction with the National Research Council's electronics experts and the Services in general.

During the winters of 1954 to 1958 I tried to improve my academic knowledge. I was curious to know how my general education compared with that of normally educated people. I had left school at fourteen years of age and my subsequent schooling was in the Royal Navy. I was accepted at Carleton University and after struggling for a bit I passed my first year and did some second year studies in a BSc course. I got two B's and a C in mathematics but I felt a bit awkward as I was then 63 years old. Nevertheless, I would have liked to complete the courses but had neither the means nor the time and did not want to estrange myself at home.

A scheme was introduced in Canadian Government circles whereby back time, either temporary or permanent, could be bought back and added to present service, thereby making for some, as in my case, a reasonable pension. I took advantage of this and was very thankful that the time spent in the Radio Branch at Pachena Point could all count and the part of my time spent there as a permanent Civil Servant was now considered as paid-up time.

The previous periods of intermittent service, plus the 1914-1918 war and the present period, combined to make me a small pension, not big enough to maintain the standard I had become used to in Canada but sufficient to live on in some other country for the time being, where the living costs were not so high. It is true that I have done a lot of rolling but a little moss has adhered, thank goodness.

I took our son back to Canada with us in 1952. He spent two years in the pioneering days at Kitimat, followed by one season in the Yukon and one in Northern B.C. doing triangulation work for the Northwest Power Corporation. His introduction to this work was through Mr. Wynne-Jones, the ex-Wales rugby star, who was also at Kitimat in an engineering capacity. My son settled down and married a lovely young English girl, and he has a home and a cottage on a lake and everything that makes life so good in Canada. I also footed the bill for my daughter to return to Canada and she is doing very well indeed.

I could not remain working in the Department of Transport for more than three months after I was sixty-five years old. Therefore, I returned to England on a Norwegian vessel, the S.S. Sun Beam, on charter for the Saguenay Shipping Line. We landed at Avonmouth on the 15th of December, 1959. I had a wonderful send-off by the staff at Headquarters in Ottawa. I was overwhelmed by their kindness and hope to see them again before long.

The officers that I had dealings with in the Royal Canadian Navy, on the Electrical Engineer-in-Chief staff particularly, and the civilian personnel, particularly the groups in Headquarters that I had the privilege to work with, were of exceptional calibre. The Royal Canadian Navy ships, including an aircraft carrier, destroyers, frigates, minesweepers and special craft that I had dealings with, bring back the memories of most pleasant associations. We groused and we worked and we got things done in spite of all difficulties and pressures.

Canada is a wonderful country for people with initiative and guts, but it takes a newcomer a couple of years to subconsciously shed his or her native characteristics and adopt Canadian ones.

This is the period of difficulty. One way out of it is to obtain work in a construction camp, mining camp or lumber camp, finding one's level among the cross-section of various nationalities of which new Canadians are formed. There are bound to be hard knocks and heart aches, but they, to varying extents, have to be endured anywhere.

My wife and I are Canadian citizens and will return to Canada soon, having had a good look at the Old Country once more. We, of course, will be glad to be near our children and grand children and our friends there in general.

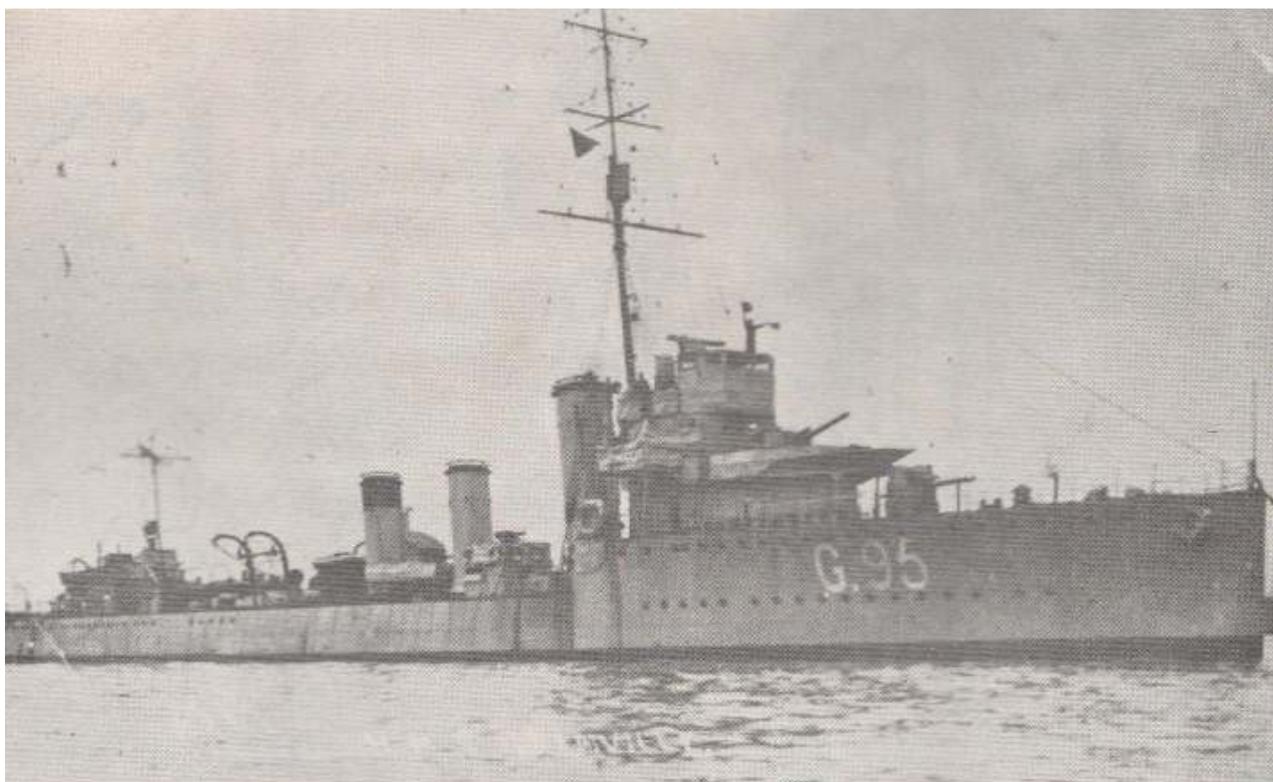
Canada has the finest future prospects of any country in the world.

"Sparks",  
Teignmouth, Devon. December, 1960.

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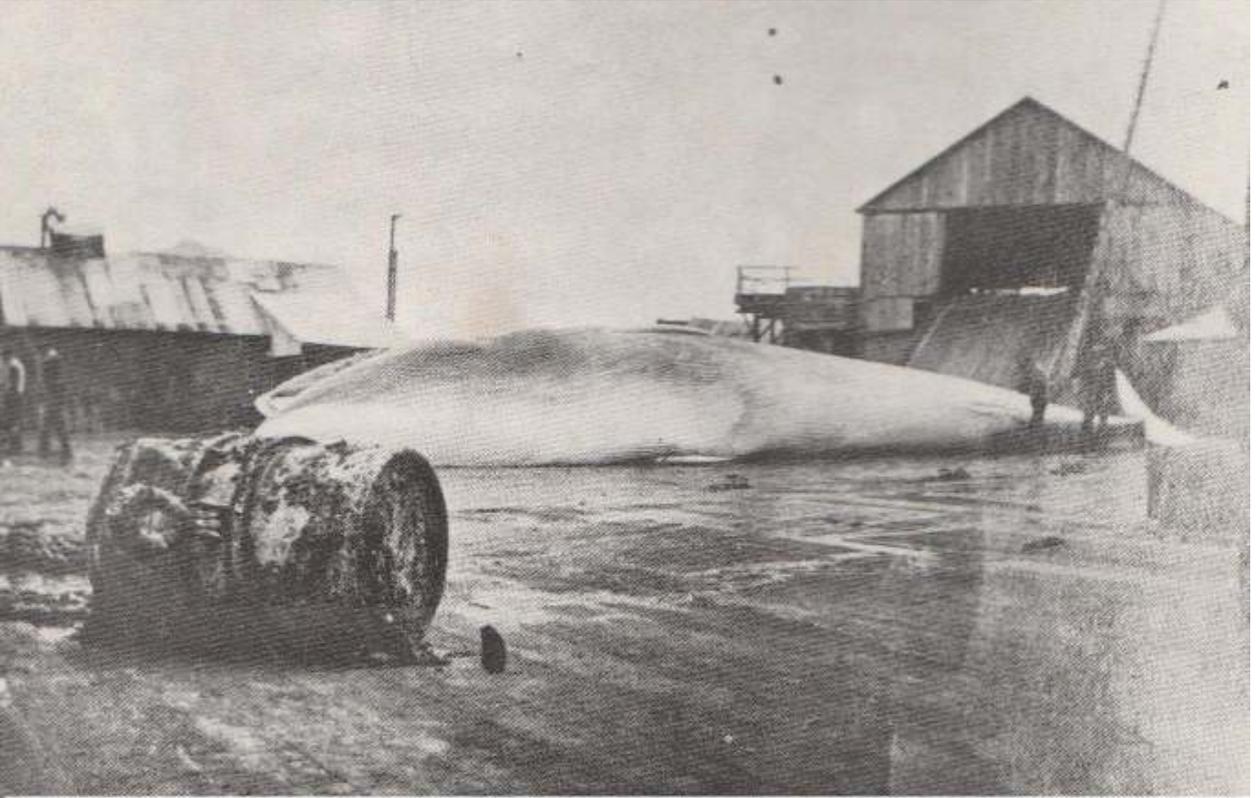
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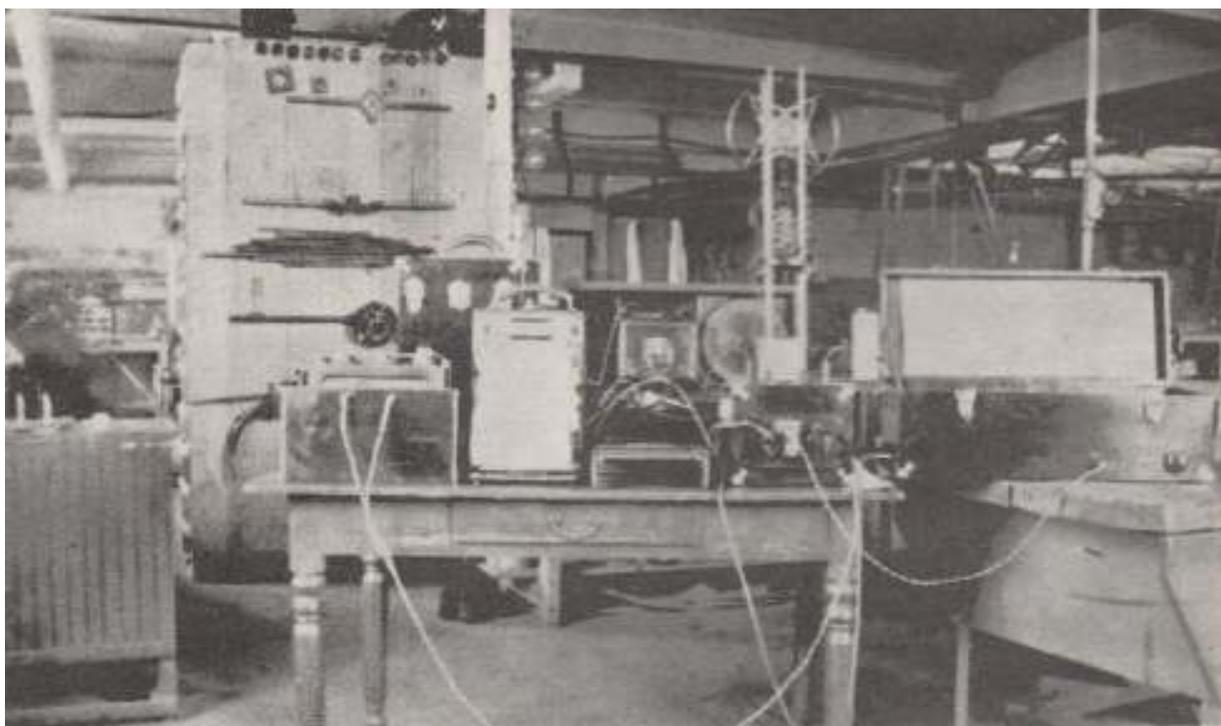
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