

land to the sea. Then reports came that the British artillery was so short of shells that the batteries were rationed to two or three shells per gun per day, and the making of shells in Canada quickly boomed into a major industry.

All this was grist to my mill in supplying electric motors to power the machine tools that made the shells and other items that made the war possible.

However, there came a time in 1915 when my business was going well and the only limit to its growth was in the number of motors that the factory in Cleveland could send to us. They were working to full capacity on war business in the United States and we could not expect any special favours from them.

I am not a war-like type but felt that to retain my self-respect I could not stay out of active participation in it indefinitely. By then it looked as if it would last a long time, perhaps several years as in fact it did. Also by then the business seemed established and on a firm footing, and my silent partner and the American company agreed to my going.

The papers contained articles about the Admiralty sending a mission to Canada to recruit young men with experience in sailing yachts or motor boats, for manning some hundreds of small, fast motor vessels, for anti-submarine work round the British Isles, in the Mediterranean and elsewhere.

The contract for these vessels was placed with a well-known firm in the United States, but America was technically neutral at the time, so it was arranged for all the various parts to be made in the United States and shipped to Canada to be put together and launched on the St. Lawrence River.

These small submarine-chasers were 80 feet long, had a maximum speed of 19 knots and carried a complement of 9, including 2 officers, 2 motor mechanics and 5 deck-hands. Armament was supposed to consist of a gun mounted on the fore-deck and four depth-bombs in launching racks at the stern. These bombs were quite formidable weapons when conditions were favourable for their use, as they contained 300

pounds of the powerful explosive TNT. Additional bombs were carried as spares in the magazine.

As usual in war-time this project for coping with enemy submarines was supposed to be highly "classified" but that did not prevent a great deal of rumour and gossip about it, much of which had little relation to the truth.

However, the idea appealed to me strongly because it seemed as if the experience I had had could be put to exceptionally good use in such craft, and the whole project had many advantages as compared with the deadly dull trench warfare in which the army seemed to be indefinitely bogged down.

I had done a lot of sailing in yachts on the south coast of England and on Lake Ontario, also motor boat cruising and racing. The territorial army regiment in which I had served during my apprenticeship trained in the coast-defence batteries in the Isle of Wight, which were equipped entirely with naval guns from the .303 Maxim machine gun up to the 12-inch calibre. It was reasonable to suppose that my experience in the engineroom at sea might be useful too, as the motor mechanics we had were nearly all garage hands with little or no marine experience.

The members of the recruiting mission that came to Canada made a tour of the country, visiting the yacht clubs on both coasts and the Great Lakes. I do not know exactly how many young men they gathered in but think it must have been several hundred altogether.

We were to start with the rank of Sub-Lieut., R.N.V.R. with the prospect of promotion to Lieutenant in 12 months if satisfactory. We were to receive pay at British navy rates for our rank, which were small by Canadian standards, 7/6 per day for Sub-Lieuts., equal to about \$1.85 or so at the time. As officers we had to pay for our food and there was no additional allowance for being married, which I was not then though some of my Canadian fellow officers were. It was in keeping with the tradition that commissioned officers in the armed

services of Britain were supposed to have private means, which few of the Canadians were fortunate enough to possess.

I felt badly about leaving the flourishing young business I had built up but I was rather between the devil and the deep sea. Being 27 and single, and believing the war would probably last another three years or so, as in fact it did, I felt I should take a more direct part in it than supplying electric motors to munition plants, which could be done by older men with family responsibilities.

My partner suggested that I should continue to draw my modest salary while I was away and it would have been quite a help, but I declined the offer and said I would manage on my naval pay and hope the business would be there for me to come back to when the war was over. I had kept my own salary to a minimum to help build up working capital which the business needed.

I think the beginning of my career as an officer of the King's Navy would be a good place to start a new chapter.

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ALONG WITH SOME 40 OR 50 other young men on the same errand I was ordered to proceed to England as a passenger on one of the regular liners plying between Montreal and Liverpool. The passage was uneventful with little outward evidence of the existence of a state of war, except the complete black-out at night and extra look-outs for which duty some of us volunteered our services.

On arrival in London we were met by an emissary from the Admiralty who escorted us to Whitehall, where we were informed that the first part of our training course would consist of four weeks at the naval college at Greenwich, that impressive complex of buildings renowned as the scene of some of the revels of King Charles II and his girl-friend Nell Gwynne. It was of course of more interest to us as the home of Greenwich Mean Time and Zero Longitude.

Before going to the college, however, we must visit a tailor and order uniforms. For this purpose we were given a uniform allowance of 15 pounds sterling and a price list of items that added up to this sum less sixpence. The list must have been drawn up by a confirmed optimist as it fell far short of the minimum necessary to equip us for the job we were going to do. Anyone familiar with the history of the Royal Navy would take parsimony of this kind for granted as traditional since

the time of Elizabeth I, or perhaps even earlier. Good Queen Bess was well known for wanting a navy capable of coping with formidable forces such as the Spanish Armada, while extremely reluctant to part with the necessary cash.

The Officers' Mess in the college was a very dignified affair, especially for evening dinner, with masses of antique silver of historic interest adorning the long table.

Some of my young fellow officers from Toronto were not so much impressed by the dignity of their surroundings, as they were intrigued by the prospect of personally investigating the night life of Leicester Square and Picadilly, to see if it was really as bad as they had heard tell. I think it quite came up to their worst fears or fondest hopes as the case might be.

Some of these youngsters were sprigs of the families sometimes referred to in the social notes as "Wealthy and Socially prominent," who had helped the city to become known as "Toronto the Good," paraphrased by frivolous critics from Montreal and elsewhere as "Toronto the Stuff."

I think they made the mistake of giving their sons too much pocket money, thereby helping to cause inflation in those circles devoted to entertaining members of the armed services in their lighter moments on leave. There was some slight fuss about the young Canadians returning from their revels in the small hours, climbing over the high iron railings of the college to avoid signing the book in the lodge at the gates, which automatically involved an interview with the Admiral Superintendent later on, referred to colloquially as "being on the mat."

Our course at the college was short but intensive and called for concentrated study if one wanted to do well in the concluding examination. For the second part of the course we went to Southampton where we were attached to H.M.S. *Hermione* for instruction in signalling, gunnery, seamanship and such items, including the actual handling of the M.L.'s, and firing the 13-pounder gun which was already "washed out" for us. It was a very useful weapon but I felt forced to agree

with the experts who had decided it was just a bit too heavy for the rather frail construction of our small ships; the weight of the gun made them slightly "down by the head."

In due course I was appointed second-in-command of M.L. 497 which was about to be commissioned in Portsmouth dockyard. I felt it would be a memorable experience to take part in the process of commissioning a ship (even a small one) in the senior base of the Royal Navy, which had played such an important part in the long history of the service, and where Nelson's famous flagship, H.M.S. *Victory*, was embedded in concrete as a lasting memorial to the man and his service to his country.

I must admit that I felt somewhat disillusioned by the actual experience, probably my own fault for entertaining romantic ideas, the result of being brought up to glamorize the navy, as were most British youngsters of my generation.

In any case we could not expect the business of commissioning one of the 80-foot M.L.'s to be regarded by the dockyard staff with the same importance as that of the battleships and cruisers to which they were accustomed.

In keeping with traditional custom in the navy it was my job as second-in-command to supervise the receipt and proper stowage of the numerous items of stores and equipment delivered to us by the stores department, including some things I had never seen or heard of before, and the use or purpose of which eluded me and everyone else so far as I could find out.

We were all somewhat taken aback by the number and importance of the items of equipment that were missing and apparently not available, such for instance as a gun of any size or sort, and a patent log, that very useful instrument that trails behind the ship at sea and furnishes an accurate record of the mileage run. It is naturally of vital importance at all times to know exactly where the ship is, and when out of sight of land in foggy weather the patent log is essential for this.

Without a gun we were faced with the prospect of searching the seas for signs of submarines and wondering what we should do if we saw one. We had some non-military rifles of the type used for hunting such game as deer, and some .45 calibre revolvers, but no depth bombs. We did have some lance bombs consisting of a small bomb mounted at the end of a broom stick, to be thrown at the enemy in the unlikely event of a U-boat allowing us to come close enough before blowing us out of the water. The lance bombs had the reputation of being as dangerous to the throwers as to the target, so it was only necessary for us to cultivate the spirit of the light brigade at Balclava, to do or die but not to reason why. Another surprise came with the arrival of the crew from the barracks where they were supposed to have been trained in seamanship and other subjects of a nautical nature. Fortunately there was one old "Salt" who had served in sailing ships and could splice rope, heave the lead, steer a compass course, chew tobacco and spin yarns till further orders.

The other four deck-hands were young landlubbers who had expressed a preference for the navy when registering under the Lord Derby scheme as being willing to join the armed services when called upon to do so. One of the first things we wanted to know was, which of them was to be the ship's cook and was he experienced in the culinary art?

It was obvious that none of them wanted the job but after some shuffling around one admitted that while in the barracks he had watched a man peel some potatoes and make a rice pudding. Subsequent experience forced us to conclude he had not watched the man very closely.

However, we showed him the galley with its petrol stove of American make and somewhat uncertain temperament, and hoped for something edible for lunch. The cook had been a junior bank clerk in civil life and he may have been better at banking than at cookery, or it may have been the fault of the petrol stove which caught fire rather frequently and had to be

doused with chemical extinguisher, but most of our meals had a queer taste and contained some rather odd ingredients like bits of cotton waste from the engineroom and so on.

The engineroom staff consisted of the chief motor mechanic, an experienced garage hand and a youngster who was, I think, an apprentice to the motor trade. They made a good team and seemed to get along well together though lacking experience of marine engineering, which I could supply when it was needed.

In the matter of living accommodation the officers were much better off than the crew, in keeping with the traditions of the sea. We lived in the stern of the ship, our sleeping cabin equipped with two comfortable bunks with spring mattresses and electric lights for reading in bed if so inclined. The other cabin was for eating or drinking in, all very neat and compact but not exactly spacious.

The crew lived together in a sort of glory hole under the fore deck, which must have been somewhat cramped when they were all there. At sea of course half of them would always be on watch. At the worst, however, I suppose we were all much better off than men of the navy in the good(?) old days of Nelson's time, just over a century before.

One drawback we all had was the difficulty of sleeping when out on patrol at night. Even in comparatively calm weather the little ships were "lively," and it was rather like trying to sleep on horseback and a horse with an uneven gait at that. The officers' bunks with their spring mattresses were comfortable enough but the motion of the ship, added to the rough grinding noise of the propellers just beneath us, and the ever-present and all-pervading smell of the petrol fumes, was a combination that Morpheus found it hard to beat, especially in my case; I have always been one of the world's worst sleepers.

This difficulty in sleeping was a factor in deciding how long at a time it was practicable for the ships to remain at sea, and the length of the M.L. patrols varied widely at different bases,

from 24 hours to several days. Sometimes my ship was sent out with rather vague orders to "Return when recalled," which overlooked the fact that having no wireless there was no means of recalling us; so we had a problem.

Our fuel tanks carried 8 tons of petrol which could last us for 2 or even 3 weeks at economical speed with occasional periods when the engines were stopped. We had no refrigeration for food but could manage for the same length of time without going hungry, with careful planning.

On one occasion of this sort when we returned to the base after an unduly long patrol and the skipper went to the base office to report as usual, the patrol commander gave him a severe "blast" for "showing great lack of intelligence," which seemed most uncalled for. We had all thought we were carrying out our orders "come hell or high water" in the traditional "do or die" spirit of the Royal Navy.

The real trouble was that many of the non-sea-going jobs such as C.O. patrols at a base of relatively minor importance, were filled by older officers who had emerged from retirement to serve during the war, and were known as "dug-outs." I had occasion at the time to think that it would have been better to let some of these dug-outs remain in retirement. I was very much interested some years later when reading Admiral Beatty's book, to see that the author made this criticism from his lofty pinnacle, exactly confirming what I saw from my worm's eye view of the naval organization.

Many of the M.L.'s experienced engine trouble much too frequently, caused by a combination of lack of marine experience on the part of the garage hands who were in charge of them, plus in some cases a tendency to report "engine defects" which were largely imaginary, because the chief motor mechanic did not want to go to sea for reasons of his own. Some of the base engineer officers ashore were old-timers who had retired before the internal combustion marine engine came into

general use, and were not well equipped to check on the validity of reported defects.

In the course of my experience I formed a very high opinion of our 6-cylinder engines with a maximum speed of 500 r.p.m. which gave us our top speed of 19 knots. With a good mechanic in charge these engines were exceptionally reliable and would run continuously, day and night for long periods without trouble. At top speed the engines developed 250 h.p. so we had a total of 500 h.p. in the ship.

As the war went on and many oil tankers were torpedoed the air force had a prior claim to available supplies of high grade fuel, and the stuff put into our tanks was graded down till finally toward the end of 1917 it was no longer dignified by the name of petrol or gasoline, but was called No. 3 war spirit whatever that meant.

Our engines ran surprisingly well on the low grade fuel but were hard to start on it in cold weather. This could be overcome by a little ingenuity such as "scrounging" a gallon or so of good fuel on which to warm the engines up, after which they would run as well as ever, which in M.L. 497 was very well indeed.

On occasion 497 was the only one of the six at the base that was ready for sea, the others being unavailable owing to engine defects or periodical refit with most of the crew on leave, or some other reason.

Among other items of equipment not available when the ship was commissioned were the recognition lights, special coloured electric bulbs used at night to either challenge another ship or reply to one that challenged us. Lacking these meant we could not be at sea during the hours of darkness as we might be fired on by our own ships.

Submarines made a practice of coming to the surface at night in order to run their diesel engines to charge their batteries, and to let the crew have some fresh air and do calis-

thenics in the interest of physical fitness. There was always the possibility of finding a U-boat at night and we had to keep a very sharp lookout for them, the problem being to make sure it was a submarine before starting to shoot, hence the coloured lights used in different combinations which were changed frequently for obvious reasons. When challenged by another ship at night it was well to make the correct reply without delay because if we were not quick we could be very dead.

In due course when the process of commissioning was supposed to be complete, the skipper received orders that began with a stereotyped preamble, "Being in all respects ready for sea you will proceed..." and so on. I used to wonder what would happen if the captain of a ship ever had the temerity to reply to the effect that he was most certainly not ready for sea owing to certain essential items of equipment not being available for issue to his ship.

Also what would happen if he meekly went off to sea (as we did) and ran into serious trouble as a direct result of something missing such as the patent log that we should have had but did not? As it happened I had worked out a substitute for the missing log in the form of a piece of squared paper, on which I plotted a curve of the engine revolutions in relation to speed of the ship in knots, and this proved to be quite accurate enough for our purpose, though of course it was more trouble than just reading the log. I have no idea whether my curve would have been accepted as evidence in a court of enquiry about an accident to the ship, but it would be a lot better than nothing. Fortunately we had no accident.

The passage of some 500 miles round the coast from Portsmouth to our base at Liverpool served as a short shake-down cruise for the crew. It took longer than it should have done as it was mid-winter and the nights were long, and lack of the recognition signals meant we must put into any convenient

port before dark; but it was all good practice for the crew including the engineroom staff. We could also check the accuracy of the compass before going out on patrol at night and finding we were not sure of our exact position, a very uncomfortable feeling. Some of the lighthouses and other aids to navigation were discontinued during the war, so that they would not help the enemy.

It helps the morale of the crew if they have confidence in the capability of their officers, especially in the matter of navigation and when the members of the crew are inexperienced landlubbers with no previous experience of sea-going. It is likely to shake them at any time to realize that the officers don't know just where the ship is or the course to steer to get to any required destination. This is not so simple as it might seem if only because it is necessary to allow for the effect of tidal currents which are often very strong and very variable in the coastal waters of the British Isles.

The R.N.V.R. had experienced very rapid expansion under the stress of war conditions. The qualifications of some of the newly-appointed officers were so dubious that one could not help wondering why they were given commissions.

Some of my fellow Canadians were much better qualified than the officers under whom they served in the M.L.'s, who were of the same rank but had three months seniority because they were in Britain instead of coming from Canada. So far as we could see no attempt at all was made to sort out the competent from the inefficient in our branch of the service.

I was more fortunate than many as my skipper was an Englishman of a good type who had been for many years an enthusiastic sailing yachtsman, taking part in cross-channel races which call for a considerable knowledge of seamanship and coastal navigation. He left much of the running of the ship to me as second-in-command, in accordance with tradition in the navy. He did not have my experience of engines or

of gunnery which latter did not matter much so long as we had no gun. When the skipper was on leave I was in responsible command as there was usually no replacement for him.

The area we were supposed to patrol from Liverpool extended from Barrow-in-Furness to the north coast of Anglesea and west to the Isle of Man, and was mainly notable for unpleasant weather and dense traffic going in all directions and at all hours of day and night. It was no joke on pitch dark nights with none of the ships showing any lights, or in the daytime with dense fog. The frail wooden hull of an M.L. stood no chance at all in a collision with a steel-hulled ship, and at night or in fog the M.L. would look so much like a submarine on the surface that any other ship would be more than likely to try to ram us if she sighted us ahead, or shoot if her gun would bear on us. It seemed like an existence made hazardous by our friends though there were no enemies within 100 miles so far as any of us knew.

The degree of risk intensified suddenly with the entry of the United States into the war in the spring of 1917. Rumour said that when the folk in Washington asked those in Whitehall what naval help was most urgently wanted, the reply was "Destroyers for escorting convoys and any vessels suitable for hunting down submarines," or words to that effect.

I don't know if this is true but it does fit the facts within my own experience. We began to see American destroyers coming in with convoys and some of them going into Cammell Laird's shipyard at Birkenhead to have the rivets in their hulls tightened up after crossing the Atlantic with a convoy. They were more formidable in appearance than our own destroyers but apparently not so well built. At least this was the opinion of an old friend of mine who held a senior executive post in Cammell Laird's organization.

The Americans also sent over some submarine chasers somewhat like our M.L.'s but larger, being 110-feet in length to our 80-feet, with a complement of 22 to our 9, and to our

envy a much larger and better gun. Altogether we thought they were better craft for the job we were trying to do, being more seaworthy and equipped with a really useful gun.

When we met the Americans in port we fraternized with them but when we saw them at sea we used every effort to avoid them. We learned quickly that some of them were even more trigger happy than the gunners on our own merchant ships; they didn't wait for poor visibility but blazed away at us in clear weather and broad daylight. Fortunately our maximum speed was 3 knots faster than theirs so we could get away from them, while reflecting that this kind of fun and games was all very well, but not exactly what we had come over from Canada to do.

Shortly before the Americans arrived our gun was installed but it was a sore disappointment, being a 2½-pounder Vickers that had belonged to the Japanese and had seen much use as the rifling of the barrel was badly worn, either in fighting the Russians or in target practice; it was so bad as to seriously affect the range and accuracy of the weapon. We never had the opportunity to see if we could hit an enemy submarine with it but I doubt if it would have been much use in combat.

Soon after the Americans came into the war we did have some excitement in our area. We were sent out one day to search for a submarine minelayer said to be coming to visit us, though we were not told why; that came out later. We had no means of detecting submarines under water so it was rather like looking for a needle in a haystack, unless one surfaced within sight of us, which they naturally tried to avoid doing. We did our best but were not able to prevent this one from laying his mines in the vicinity of the Mersey Bar Lightship.

A large American passenger liner that normally plied between New York, Southampton and Cherbourg hit a mine and docked in Liverpool with a hole in her hull. It turned out that the American General Pershing was on board and the Germans evidently knew it, and exactly when the ship was

due in Liverpool. Our intelligence people obviously knew the submarine was coming to try to sink the ship and hopefully Pershing too, so it was an example of the efficiency of the intelligence on both sides!

Another passenger ship that was in use as a troopship also hit a mine but did not sink, while a third ship, a smaller one of the tramp cargo type did sink in the channel; altogether a fair night's work for the U-boat though doubtless disappointing for them that General Pershing suffered no more than some slight inconvenience.

Rumour said that the Americans were much upset by the incident and refused to send any more ships to Liverpool unless we could provide what was known as a "War Channel" into the port, which meant a channel that was swept by the mine sweepers every day. Up to that time there was no mine-sweeping at Liverpool at all, presumably because the Admiralty did not think the risk of mines was sufficiently serious, or they simply did not have the necessary ships and gear to spare.

However, needs must when the devil drives or our American allies must be placated. Orders went forth for a trawler here and some drifters there to be detached and sent to Liverpool to form a mine-sweeping flotilla and one of the most experienced officers was appointed as port mine-sweeping officer, or P.M.S.O. for short. He had been at Dover which was naturally a hot spot for submarine activity, and had been blown up three times, being wounded and the only survivor twice.

He proved to be what Canadians call a "hustler," a fellow who gets things done without waste of time, and my M.L. 497 was placed at his disposal for the month or so that it took to get the mine-sweeping organized and working smoothly as a daily routine.

We laid out a war channel of some 50 miles in length and supervised the placing of the buoys to guide the sweepers and the ships that would use the channel. I came to the conclusion

that mine-sweeping was one of the least attractive jobs done by the navy, being dreary and monotonous as well as distinctly hazardous.

Another incident occurred about this time but my memory is not as clear about it as I could wish, perhaps because I was not directly involved. One night the pilot ship hit a mine and sank quickly with the loss of 31 lives including 19 pilots, the only survivors being a man and a boy.

I do not know if the mine was one of the same batch or another lot. Some of the German mines were equipped with a device that caused them to be inactive for varying periods after being laid, so that it was never possible for us to be sure the channel was safe even when it was swept every day.

The weeks we spent under the orders of the P.M.S.O. were certainly strenuous but we felt we were really being of some use to the war effort. This was a pleasant change from the feeling of futility that plagued us when we were out on patrol without either a gun or depth-bombs, supposed to be searching for submarines and wondering "So what?" if we saw one. It would have been quite useless for us to try to ram a U-boat as they were stoutly built of steel and the M.L.'s were of very frail wood construction, not designed to ram anything more than a rowboat, and not a very heavy one at that.

When the depth-bombs were finally issued to us the feeling of futility was somewhat lessened though we still had the 2½-pounder gun that was nearly worn out. It was doubtful whether it would have been effective in causing a submarine to submerge so that we could drop depth-bombs. It was my belief that one good, modern .50 calibre machine gun would outshoot and out-range us.

In addition to being very frail the M.L.'s were very vulnerable, in that they were loaded with highly combustible fuel and explosives. Under normal conditions we were in far more danger from fire and explosions than from the enemy. Fortunately we were well supplied with chemical fire extinguishers



which were used at least once a week on the average to put out petrol fires, started in most cases in the galley stove or the engineroom bilges.

The worst fire I remember occurred when we were in the dock at Fleetwood, just after we had been up on the slipway there for our periodical overhaul. It was a tidal dock so we had to wait till the lock gates were opened at high tide, before we could go to sea.

The cook went to fill his two-gallon container from one of the after fuel tanks, and managed to spill a quantity of petrol over the stern of the ship, including the four 300-pound depth-bombs in their brackets. The skipper was on leave so I was in charge and was in the chartroom laying out our course for return to the base, when I suddenly heard the too familiar cry of "FIRE."

I snatched an extinguisher from its bracket and leaped out onto the deck in one instinctive movement, as the result of much practice, and I don't mean mere fire drill. I saw the entire stern of the ship including the depth-bombs engulfed in flames and black smoke, and ran toward the conflagration, shouting orders to the crew to bring me all the extinguishers in the ship, and the refills from the magazine where they were stowed.

It was only possible for one person at a time to get close enough to the fire to use the extinguishers effectively. It seemed obvious that the fire must be put out quickly if we could do it at all, and I could only guess how long it would be before the 1,200 pounds of TNT in the 4 depth-bombs would reach the ignition point. Two of the four fuel tanks were under the deck beneath my feet, and the cook had not managed to replace the filling plug of the one from which he had drawn petrol for his stove.

Altogether the situation seemed precarious and I remember thinking how foolish was Casabianca, the lad in the poem that begins, "The boy stood on the burning deck\*...." The

\*One important difference, nobody had fled.

crew kept passing extinguishers to me as I emptied them, and refilling the empty ones with the precious fluid of which we fortunately had a good supply in the magazine. By the time the fire was out there was very little of the extinguisher fluid left, and we all felt it was a narrow escape. The fire had probably been caused by someone carelessly tossing the butt of a cigarette where the petrol had been spilled.

Soon after we returned to the base we had another job that made a welcome change from routine patrol duty. The new battleship H.M.S. *Ramillies* was damaged in launching on the Clyde and was towed to Liverpool to be dry-docked for examination and repair.

She was a most tempting target for any submarine that happened to be around, especially in view of the very low speed of the tow. So several M.L.'s were detailed to "screen" her, which meant hovering about at a suitable distance and keeping the sharpest possible lookout for an intruding periscope. We all felt relieved when the *Ramillies* was safely in the river at Liverpool, where she promptly signalled an invitation to the M.L.'s to "Come aboard and have a drink," which was accepted with alacrity.

It was about this time that I applied for two weeks leave for the purpose of being married to an English girl who was also in uniform and on active service as a member of the V.A.D., in the First Western General Hospital in the suburbs of Liverpool.

We had done most of our courting on the links of one of the local golf and country clubs, when my ship was in dock and she had a half-day off duty. We did not intend to set up housekeeping till the war was over and we could do so in Canada, we hoped. It suited our ideas very well that elaborate weddings were very much out of style in England during the war, so we arranged to be married very quietly indeed, and went to Devonshire for a holiday and to visit her parents. We were both subject to recall at any moment but the war managed to get along without us for the fortnight of our honeymoon leave.

Soon after this interlude I was transferred to another M.L. at a base in the southwest of England and soon after that an opportunity opened up for me to qualify for something for which I hankered, command of a vessel larger than an 80-foot M.L. After letting a number of very well qualified officers of the merchant service (like my brother) go into the army, the "Scuttlebutt" (navy gossip) said that some of the big brass at Whitehall were crying in their champagne over the shortage of navigators.

In any case an Admiralty order came out to the effect that any Lieutenant R.N.V.R. with a minimum of 12-months service afloat who could pass an exam in navigation and seamanship, would qualify for command of an auxiliary patrol vessel. I had my brother's sextant and polished up on the use of it before taking the exam. I passed well enough to obtain a First Class Certificate.

The case of my brother Dudley was typical of that of many merchant service officers and of a certain lack of vision in the conduct of the war. He had a flawless record including his Extra Master's Certificate at the early age of 25. He had applied for enrolment in the Royal Naval Reserve in 1915 but was kept cooling his heels in ante-rooms at the Admiralty so long without a definite answer as to whether he would be accepted or not, he lost patience and went to join the Inns of Court O.T.C., and in due course was gazetted to the 17th Kings Royal Rifles.

He was only in France about three months before he was very badly wounded when a 5.9" H.E. shell burst in the sector of trench he was in, giving him about 16 wounds. The surgeons took off his left leg above the knee but he was soon getting about with a wooden one and they made him a staff captain in the war office at Whitehall. But his days of seafaring were over, and he died in the terrible, pandemic influenza in 1918.



**M**Y CERTIFICATE OF COMPETENCY in navigation and seamanship is dated July 9th, 1918 and is still one of my most cherished possessions. It says that I was considered competent to command one of His Majesty's auxiliary patrol vessels.

At the time all the armed services were feeling the effects of the terrible pandemic influenza that left the navy even more short of officers than before. So the ink of the Admiral's signature on my certificate was hardly dry when I was sent off at a moment's notice in command of a typical North Sea trawler, about 140 feet long, ostensibly to escort a convoy of colliers from Penzance to Brest, about 130 miles across the mouth of the English Channel, a spot which had been the scene of a lot of submarine activity.

Most of the mines that normally supplied France with coal were in German hands, so the British had to keep France supplied with coal as well as they could. It meant running a convoy of colliers to Brest every 24 hours and the job of escorting these convoys was regarded as one of the toughest and most unpleasant the navy had to do.

The colliers loaded at the Welsh ports on the Bristol Channel and proceeded to Penzance where they gathered inside the boom defence across the bay. The routine was for a convoy

consisting of from six to twelve ships more or less, to sail in the small hours of the morning and if all went well reach Brest about 10 or 11 p.m.

The escort consisted of 3 trawlers which had a speed of about 8 knots and were manned by men who normally made their living by fishing in the North Sea or as far afield as Iceland. The captain had the naval rank of warrant skipper and the only commissioned officer was usually a lieutenant of the Royal Naval Reserve, a professional sailor usually with a captain's certificate in the merchant marine; he was O.C. convoy.

When the convoy arrived at Brest the officer could not turn in for a few hours of much needed sleep but must go through formalities and paper work with the French authorities before sailing with the northbound convoy of "returned empty" colliers at 2 or 3 a.m., hence no sleep.

Theoretically he would have two days lay-off after six days of this tough routine, but in practice the lay-off sometimes did not materialize for one reason or another, especially during the influenza epidemic. The job had the reputation of causing men in the prime of life, professional sailors of mature experience, to break down from sheer exhaustion after six months or so. But it was a vitally important job that must be done somehow.

This convoy route was an obvious place for the U-boats to ply their grim trade and while the losses of ships were heavy it seems surprising that they were not heavier.

I naturally felt a certain thrill when I first set foot aboard a ship of the Royal Navy of which I was in command on active service in war, but I admit being somewhat dismayed by the nature of this job I had stepped into. This feeling was accentuated by certain premonitory symptoms of the onset of a bout of the prevailing influenza, which I had hitherto escaped.

My trawler had a wartime crew of 20 men who were of a

rugged type practically born to a life of deep-sea fishing under all conditions of wind and weather. I don't know what they thought of setting out on what was known to be a tough assignment under the command of an officer of the R.N.V.R., not a professional sailor, but they appeared to take it as all in the day's work. We arrived at Penzance soon after dark and I went ashore to report to the S.N.O. who proceeded to quiz me about my qualifications for the job. He seemed concerned to learn that I had never been to Brest and had no knowledge of the channel inside Ushant used by the coal convoys. It really needed local knowledge such as possessed by pilots or captains of coasting vessels, especially as some of the navigation marks were removed in wartime.

It was customary for the trawler with the O.C. convoy on board to lead the convoy through the channels into Brest, because some of the collier captains did not know the way any more than I did. So the S.N.O. decided to send the officer I was supposed to relieve with me to "show me the ropes," making an extra trip for him instead of the "lay-off" to which he was entitled.

The next 48 hours was a night-mare experience for me as I was feeling steadily worse and running a temperature with influenza, while trying to absorb a mass of technical detail about the convoy. Fortunately we were not troubled by submarines on that trip.

When we returned to Penzance I was ordered to report to the doctor who sent me to the hospital, where I was put to bed and slept the clock round and felt better on waking. All very well but a humiliating end to my first command.

I was afraid it might count against me but apparently not as after a brief convalescence I was suddenly sent back to Canada to take command of a flotilla of drifters that had been built there for the Admiralty, and which I learned later were intended to go to Gibraltar.

I still have my copy of the signal from Admiralty to Naval

Base, Falmouth, appointing me to *Niobe* additional for command of net drifters. *Niobe* was an obsolete cruiser that functioned as the depot ship for the naval base at Halifax, Nova Scotia.

The reference to "Net Drifters" was somewhat obscure to me, as I had only a very vague notion what they did and no idea where I should be sent.

I made the passage to Halifax as a sort of paying guest in the wardroom mess of an ancient passenger liner equipped with 6-inch guns, and one of the 10th Cruiser Squadron. The ship served as ocean escort to a westbound convoy; the trip took 12 days and was very dull.

On arrival in Halifax I reported to the S.N.O., Rear-Admiral Storey, who proceeded to quiz me as to what I was all about, which was disappointing as I had been hoping he would be able and willing to enlighten me on the subject. He seemed to know as little about net drifters as I did but the interview took a sudden turn for the worse when I chanced to refer to the fact that the ship I had come on had 200 tons of mines for the nets in her hold.

It was some months after the great explosion caused by a cargo ship in the harbour with 3,000 tons of TNT catching fire and blowing up, causing some 1,800 deaths, injuries to 20,000 people and untold damage to the town. So it was not surprising that everyone in Halifax was still very sensitive on the subject of explosives on ships in the harbour.

The Rear Admiral abruptly broke off his talk with me to issue orders for the ship to leave her berth at one of the docks and anchor in the roadstead outside, for which I am sure the people on board would call down curses on my head if they got to know I was responsible, however unwittingly.

It seemed there were no instructions from the Admiralty about me and it took a little time to get sorted out, so that I would know what to do or where to go to find my flotilla of

drifters. The only sure thing was that they were not in Halifax at the time.

In time I learned that the drifters (all 12 of them) had been built in Canada for the Admiralty, and I was supposed to take them to Gibraltar for the purpose of setting up a barrier of steel nets festooned with contact mines, across the 12 miles of the Strait, to keep submarines from getting into the Mediterranean.

I had heard of this being done in the Dover Strait which was about 21 miles across, but I had never seen anything of the scheme at first hand. However, the first thing of course was to find the drifters and get them fitted out for the passage to Gibraltar via Bermuda and the Azores.

There seemed to be a definite lack of communication or a credibility gap or something of the kind between what was referred to as Naval Ottawa and the Admiralty in Whitehall. However, by dint of picking up a scrap of information here and another there, I learned that some drifters were in the harbour of Quebec, though no-one seemed to know why they were there or how long they planned to stay, or in fact to whom they belonged.

So it was arranged that I should go to Quebec and rendezvous there with the (then) Lieut. Percy Nelles, R.C.N., who was Flag-Lieut. to Admiral Kingsmill, the Chief of the Naval Staff in Ottawa.

We found half a dozen drifters there and got them routed out and on the way to Gaspé. I should explain that by the time I met Nelles in Quebec my orders had been changed, and I was told to "wash out" Gibraltar for the time being and establish a base in Gaspé Harbour, from which to maintain an anti-submarine patrol in the Gulf of St. Lawrence with my drifters, till navigation on the St. Lawrence route closed down for the winter, which usually happened about December 1st.

It appeared that two German U-boats of their most formidable

able type, known as the Deutschland Class, were operating on the American side of the Atlantic. They had laid mines off Halifax and Sydney, Cape Breton, and torpedoed some ships off the American coast. There was concern lest they operate on the St. Lawrence route in the gulf or the river, where some important shipping with both troops and munitions was to be found.

Incidentally I found that the rest of my drifters were already in Gaspe, and under the command of a French-Canadian warrant skipper in a trawler that belonged to the Canadian navy. It was a somewhat involved situation as the drifters were the property of the Admiralty and the warrant officers and other ratings were all like myself under Admiralty orders and on Royal Navy rates of pay which were substantially lower than Canadian rates.

As a lieutenant I out-ranked the French-Canadian warrant skipper but he obviously did not like being superseded by me or taking orders from me. So I put up at Bakers Hotel and sent a communication to my immediate boss, the (then) Captain Walter Hose, R.C.N., captain of patrols at Sydney, outlining the situation and requesting necessary action to solve the problem. In a short time another trawler appeared on the scene, the property of the Admiralty, and the French Canadian was recalled with his trawler and I never saw or heard of him again. I don't suppose he liked me though.

So there I was in Gaspe in command of a flotilla of 12 drifters and a trawler, with a total of over 160 warrant officers and other personnel, with rather vague ideas of what I was supposed to do. The ships were all fresh from the builders yards but the drifters especially developed what I thought was an unduly large number of defects, to both the hulls and the engines and boilers.

Facilities for repairs were limited to those of the village blacksmith's shop. I was the only commissioned officer in the

unit, having no engineer officer or pay officer or medical officer. The world-wide influenza epidemic was raging ashore with a very high rate of mortality among the civilian population, and I was much worried lest we should get it in the ships; somehow we escaped that fate.

When I arrived in Gaspe I found the drifters already there were obtaining the provisions they needed from the local store of Messrs. Robin, Jones & Whitman, one of the old-established trading firms of the Maritimes. I had had no instructions about this but assumed it was in order with the naval authorities. From time to time I signed invoices for thousands of dollars worth of food in the hope that eventually I would not have to pay myself, which would have been quite impossible at that stage of my career. It seemed so very different to anything I had been used to in England but of course there was no place in Britain to compare with Gaspe, which was much more isolated from the outside world in 1918 than it is now.

The Gaspeians I met were all very friendly and co-operative. I believe I could have bought everything that was for sale in the village by merely signing invoices. Their confidence in being eventually paid by the government was touching, and far greater than mine. I think they were glad to have us there with our little ships and guns, one gun per ship and the largest, a 12-pounder on my trawler, a mere pea-shooter by comparison with the two 5.9's on each of the German submarines that were somewhere around. I estimated that the 5.9's would throw a projectile weighing just about 100 pounds to a range we couldn't begin to touch with our guns, but I saw no point in explaining this to the good folk of Gaspe. We would also be at a disadvantage in the matter of speed, as the U-boats were credited with 25 knots on the surface with their diesel engines, whereas our best gait was about 8 knots, so they could literally run rings round us.

To the best of my knowledge no U-boats penetrated the

Gulf of St. Lawrence in the first World War, though they could easily have done so if they had wished. They did in 1942 and torpedoed some ships well up the river.

Under the circumstances it was as well that I had received my training as a works apprentice in a shipbuilding plant. We had to improvise to some extent in dealing with the defects that developed in ships and machinery, but in one way and another we did keep them all functioning and maintained a patrol in the gulf. My trawler was fitted with wireless but not the drifters, so once the latter were out of sight they were out of touch with me.

The warrant officers and men who formed the crews of my ships were all Canadians but not sailors in civil life; many came from the Prairies. They had spent some time overseas with one branch or another of the Royal Navy, but they did not seem to be very happy about their experiences, or the training they were supposed to have received, which seemed to resemble that of the M.L. crews I had encountered before, in being somewhat superficial.

When I found them in Gaspe they all said they had not received any pay for a long time and were practically "broke." So I sent a request to the naval base at Sydney and in due course received a large cheque which I was able to cash at the branch of the Bank of Toronto in Gaspe, and doled out the proceeds on account. I must say I found the men very well behaved and had no trouble at all with delinquency of any kind. A feature of life in Gaspe was the occasional influx of lumberjacks coming in from the woods for a bit of dissipation, which usually took the form of imbibing an overdose of a fluid known locally by various names such as "White Mule" or "Dollar Dead-eye," and then sitting on a big log in the village square and howling like a wolf. Fortunately none of my men experimented with this form of diversion so far as I knew.

On one occasion a vessel of the Canadian navy paid a visit

to Gaspe and anchored in the harbour for a few hours, sending some of her crew to stretch their legs ashore. A few of them seemed bent on emulating the lumberjacks in sampling the local firewater, but instead of working off excess high spirits by sitting on a log and howling, they began to get rough and wanted to take the village apart.

By that time the good Gaspeians had practically adopted my outfit as their lawful protectors, and some leading citizens appealed to me to do something about the rambunctious visitors. I was not at all sure of what the extent of my responsibility was if any, especially as the captain of the visiting vessel was senior to me in rank by a half-stripe. He had not himself come ashore or made any contact with me, and it was necessary to act promptly to prevent the situation getting out of hand. So I quickly organized two naval shore patrols which went to work and gathered up the trouble makers, and sent them packing back to their ship in the boats in which they had come ashore. I felt I was sticking my neck out to some extent but we heard no more of the incident, and the Gaspeians were grateful for our efforts.

With the onset of autumn it began to look as if the war would be over before we ever started our projected journey to Gibraltar, a prospect I regarded with mixed feelings. The task of getting all my small ships safely across the Atlantic offered a challenge such as almost any man in my position would have welcomed, despite the difficulties.

One problem was getting enough coal into the ships to take them from Bermuda to the Azores, especially in view of the difficulty of obtaining coal of good quality under wartime conditions, and the fact that many of the stokers had had very little real seagoing experience. I had good reason to know that daily consumption of coal could vary very widely with the knowledge and skill of the men who shovelled it into the furnaces.

It was almost certain that some of the drifters would experi-

ence defects of one sort and another, and trying to cope with these in mid-ocean could present insurmountable problems. If we arrived at Gibraltar minus two or three of the drifters, there would be a court of enquiry with me as the star turn and probable scapegoat if one should be required.

With the Armistice on November 11th I ceased to worry about these things and looked forward to being demobilized and free to return to my business in Toronto in the very near future.

Not so fast, however. The first thing I noticed after the Armistice was a blank silence that descended over our communications with the outside world. Up to November 11th I had received "Signals" by wireless, addressed to various titles such as "C.O. St. Lawrence Patrols," "S.N.O. Gaspe, Quebec" or a more humble, "C.O. TR 38," which was the designation of my ship. Some of the signals were of immediate interest to me but many were for information of a general nature. Some of them originated in Sydney or Halifax or Ottawa, or even Whitehall or Washington.

I could not help feeling that there was some lack of clear understanding as to just who was supposed to be giving me orders, though of course the various fancy titles to which the signals were addressed could not but be flattering to a mere Lieutenant R.N.V.R., just a young fellow trying to get on with his part of the war and keep out of trouble with his own side.

Came the Armistice and no more signals from anywhere, but within three weeks or so another problem to wonder about. Winter sets in early in the Gulf of St. Lawrence and I think it was earlier than usual in 1918. It was obvious that if my ships remained in the inner harbour much longer they would be frozen in till next May or June, a most unpleasant prospect for all of us.

So I sent a signal to naval base, Sydney, asking for instructions and received an answer promptly, "Proceed to Halifax."

So all the ships stocked up with provisions, coal and fresh water, we said good-bye to our friends in Gaspe and set out one wintry day in early December with flags flying and sirens sounding.

The outlook for weather was not promising and I decided that the war being over there was no point in taking needless risks. The important thing was to get all my ships with their crews intact safely to Halifax.

I had found by experience that some of the drifter skippers were not too sure of their navigation, but when we were at sea they were all right so long as they could see my trawler, the flagship of the flotilla. It was the season for winter gales and thick snow-squalls that sometimes reduced visibility almost to zero.

So I decided to go by way of the Northumberland Strait and the Gut of Canso. By the time we reached the Gut, I received another signal from Sydney ordering us to go to Sydney instead of Halifax. We emerged into the Atlantic Ocean and turned north in the teeth of a howling gale with thick snow and very low temperatures. I don't know just how cold it was because the mercury vanished into the bulb of the thermometer, but I felt like an Arctic explorer when the alcohol compass froze, especially as I depended on it for accurate navigation. The alcohol did not freeze into a hard block as water will, but into a sort of slush in which the compass card could not revolve freely, making it useless for navigation.

The other compass inside the warm wheelhouse was inaccurate owing to the proximity of a mass of iron and steel in the form of the steam steering engine.

The steering gear chose this awkward moment to go out of business, owing to the spray freezing as it hit the deck, till the ice was so thick it jammed the quadrant on the rudder head. So I had to keep two sailors chopping ice continuously to remedy this trouble. It was necessary to relieve the ice-chopping detail every hour in that bitter cold, and I remember wishing

I could have whoever designed the trawler on board so that I could set him to chopping ice for the experience. I suppose he would have said he didn't design the ship for such conditions, but I remembered seeing exactly similar trawlers coated with ice, returning to Liverpool from a fishing trip to Iceland in the depth of winter.

Somehow we all managed to beat our way into Sydney, with the drifters following the trawler like a flock of sheep. The harbour was chock full of shipping of one sort and another so that it was hard to find space to anchor. As soon as possible I went ashore to report at the base office, and when I opened the door was greeted by a voice calling out, "What the hell are you doing here?"

So I produced the signal ordering me to proceed to Sydney instead of Halifax, and was told that they had sent me still another to go to Halifax after all. This last signal ended as usual with the word "acknowledge" but we never received it and naturally never acknowledged it, so there we all were! It was certainly one of those moments.

I could not help feeling that things in that office were not quite so businesslike as could be desired. Though the war was over it seemed a bit too soon to pack up the customary procedure to that extent.

So we had to fill up again with coal and water and provisions and set out for Halifax. A redeeming feature was the addition of two more trawlers to the flotilla, the warrant skippers being experienced professional sailors who were thoroughly familiar with those waters. One of them suggested going through the Bras D'Or Lakes to the Gut of Canso, which we did with the skipper acting as pilot. I would not have done this myself as some of the navigation marks had been taken up for the winter but our pilot knew the route so well he could dispense with the buoys and other marks.

So without further misadventure we all arrived at the en-

trance to Halifax harbour and steamed to our allotted berths with the knowledge that for us the war was really over.

I had to stay for a few weeks in the relative luxury of a hotel, while my ships were stripped of stores and equipment, and relegated to mooring buoys in the Nor-West Arm.

I was demobilized myself as of January 15th, 1919 and I think I must have been the first one of my group of Canadians in the R.N.V.R. to arrive home.

I never heard what became of my trawlers and drifters but they had been built with the idea that they could be sold off after the war for commercial fishing in the waters around the British Isles, for which they were eminently suitable, being sturdy to stand rough weather and economical to operate.

Reading over the above I realize that I may seem to have temporarily mislaid my rather new wife. For some time before the Armistice the papers carried columns of what seemed at least semi-official advice to the wives and families of Canadians in the armed services, to return to Canada while they could, because available ships would soon be fully occupied repatriating the troops, and accommodation for civilians hard to obtain.

It seemed good advice so my wife applied for passage and was notified she could travel in H.M.S. *Olympic*, the popular White Star liner temporarily in the navy like myself. The fare was the fixed sum of 13 pounds and passengers took what accommodation they were given. The ship was not fully occupied and my wife happened to be the only naval officer's wife on board, and was given a deluxe suite to herself, with two stewardesses to look after her, truly a bargain in travel accommodation not likely to ever happen again.

The ship happened to arrive in New York just in time to see natives celebrating the Armistice with typical American ebullience, though it was something of a shock to her to see the crowds of people of apparently mature age in the streets,



leaping and shouting and waving placards inscribed with slogans such as, "We won the War," "It took the Yanks to do it," and other somewhat exaggerated claims.

She arrived in Gaspé by train about 3 days later and was warmly welcomed by some very good friends I had made there. We had a brief time together before I left with my flotilla for Halifax via Sydney, then she rejoined me in Halifax and when I was demobilized we took a train together for Toronto, feeling thankful that the war was behind us, and the future beckoning.



THE YEAR 1919 WAS A VERY busy one for both of us. Picking up the threads of my former life as a civilian business man was not such a simple process as one might think it should be, and was made more complicated for me by changes that had taken place as the result of the untimely death of my original partner when I was overseas three years before.

Apart from business Ruth and I had the task of starting from scratch in setting up housekeeping, finding a place to live despite the acute housing shortage, acquiring furniture and so on. It was soon evident that she had a distinct flair for home-making, showing sound judgment and good taste with a keen sense of values, the latter being important because at the time we were "poor but honest" and hoping to get on in the world.

The business needed working capital and I wanted to put as much as I could back into it, taking more shares of stock instead of dividends, for the purpose of correcting what I felt were mistakes that had been made in my absence. It was desirable to keep our living expenses on a modest scale for the time being, and Ruth was a very great help to me in this, while making a home for me much better than any I had had when I was as a bachelor.

Many people besides myself had felt that the general outlook for business in Canada immediately after the war was very uncertain. I think we were all agreeably surprised when the boom carried on with a barely perceptible pause, despite the abrupt cessation of the purely war industries.

The fact was that after three or four years of full employment at relatively high wages, there was plenty of money in circulation and a large volume of demand for goods that were not readily obtainable while the war lasted. And there were many thousands of men like myself from the armed services, setting up housekeeping for the first time to add to the demand for goods of all kinds.

So the boom continued for two years or so which was a great help to me in getting re-established in civilian life, in my business affairs and as a new householder.

By 1921, however, it was evident that the boom was losing some of its bloom. By then it had also become evident to me that the future progress of the business lay in manufacturing in Canada rather than selling and servicing something made in the United States. The American company with which we were associated did not take kindly to this idea at all, though it could have been worked out very well on a basis that was fair to everyone concerned, while vastly improving our prospects for building up a really successful business.

I had another major problem in the partner I had in effect inherited through the death of his older brother, with whom I had first started the business. My original partner was a Canadian by birth and had had the same sort of technical training in Scotland that I had in the south of England. The brother with whom I was now in business had no technical training at all and for that reason was a square peg in a round hole.

I felt he had no natural aptitude for engineering matters and seemed to dislike being involved in such things. His idea was to devote all his efforts to the financial side of the business

which at that time needed only a good bookkeeper, not a partner drawing an executive salary.

So I struggled through the early 1920's somehow, feeling I was in the middle between these two problems of my partnership and the American company, and the business did make progress to some extent despite the difficulties.

I was beginning to feel the strain of long-drawn-out frustration and overwork by 1925, and my doctor strongly suspected me of stomach ulcers, that well-known occupational hazard of the typical North American high-pressure business man. The x-rays of my innards showed no evidence of ulcers or anything to warrant surgery, so the doctor let me off with some good advice about diet, which did help me to reduce weight and feel somewhat better.

I was convinced at the time and still am that the real trouble was the combination of trying to do the work of two men, owing to my partner's lack of both qualification and inclination for the technical side of our business, and the extreme frustration of trying to run the business in a way I did not believe it should be run, owing to the intransigent refusal of our American friends to co-operate fully toward the development of manufacturing in Canada.

In this connection it is interesting to note that some years later, when my partner was no longer in the business, and I had retired, the Americans did build a factory and run it as I had tried to persuade them it should be run, and it worked out very well indeed for them.

In the meantime I did manage to wring a reluctant consent from them to let us make a start toward some partial manufacturing, which was just as well. It helped us materially to take advantage of the booming business of the period 1926 to 1930, when we really made some progress financially though we would have done much better if we had been further advanced in manufacturing in Canada.

This period of boom, however, had the effect of postponing

a major reorganization that would have solved my partnership problem, and made it in the end more acute than it had been before. He had some means outside of our business and was one of the many thousands of people in the United States and Canada who were speculating in the stock market and were caught "out on a limb" when the roof fell in on Wall Street in October 1929.

In the financial jargon of the times these people were what was known as "long on margin" in the stock market, having stocks on which they had only made a down payment instead of owning them outright. In plain language it was not investing but gambling, and the history of the stock market was replete with examples of the same sort of thing happening, and bringing ruin and devastation to the unfortunate folk who had only been trying to make a lot of money easily.

I knew one stock of which my partner bought 300 shares at \$92 per share quite shortly before the crash began. That stock actually went down to \$2 per share before it started to go up again, and it never did go up to anything remotely resembling the price at which he had bought. He had other stocks that were comparable if not quite so bad, and he was rather completely ruined except for his interest in our business, which was not adequate for his responsibilities and scale of living.

While all this was going on I was struggling to keep our business going as well as possible, and it was a tough battle. Nearly all business concerns were affected though some more than others of course. At the peak of the boom we had employed about 100 people altogether in the office, sales staff and the plant, and including a branch in Montreal.

I wanted to keep the organization together if possible because it is always well to do that in a technically special business, and no-one likes to discharge good employees at a time when they may have difficulty in finding another job.

The Depression did not really begin to affect us seriously

in 1930 and in the summer of that year I had made a business trip to England, to look into the prospects for doing some business there. I did this at the request of the head of the American company, and the upshot was that we decided to open an office in London, to be run by us from Toronto, with the American company sharing the expense and the profit or loss equally with us.

This venture was just beginning to look as if it might pay off well, when Britain went off the Gold Standard in 1931, which had the effect of making it nearly impossible for Canadian or American concerns to sell anything there, or anywhere in the sterling area; which was a sad blow, and made a bad situation worse for us.

In the meantime my partner was so much affected by the ruin he had brought on himself, that he was getting to be a cause of great anxiety to me, and I imagine his own family. In the spring of 1932 I felt that something would have to be done but it was a tough problem to know what it should be.

The final upshot was that the American company bought his interest in our business and that of his late brother's estate, on condition that I agreed to carry on running the business with the American company as the senior partner, having stock control while I owned 40% of the shares.

The arrangement was an enormous relief to me and I began to feel better almost at once, though the low point of the Depression was not reached till about 12 months later. If there is something to be learned from this experience, perhaps it is that while one may have a number of things to worry about, it is not always easy to know just which is the most serious worry that is really pulling one down, unless or until that particular worry is removed, when all the others seem relatively minor.

I could have purchased my partner's shares myself with my hard-earned savings and the head of the American company tried to persuade me to do so. I balked at the idea,

however, for what seemed the very sound reason, that it would have put me in the entirely false position of having most of what I owned tied up in the business which I did not really control. In the final analysis the American company could at any time make it impossible for us to carry on the business in its existing form, if they felt like doing so, and I could not reconcile myself to being so completely in their power. I had then been associated with them for nearly 20 years and I did not feel that their ideas matched mine so well that I wanted to be tied to the business for another 20, if they chose to have it so. I wanted to be able to retire when I was ready to do so, not when they thought fit to agree to let me go. I could only retire by selling my shares in the business to them at a fair price; there was no other practicable market for them.

In 1932 they had still not come round to share my ideas about how the Canadian business should be run. That took another 5 or 6 years by which time I was no longer there. I could have sold my freedom to control my own destiny for a mess of pottage but balked at the idea, and can honestly say I have never regretted the decision.

The four years from 1932 to 1936 were devoted to the hardest kind of work in getting the business through the trough of the Depression which occurred in the spring of 1933, and then back to a more normal basis again, to where it was showing a reasonable profit.

We actually declared a small dividend for 1935 and we certainly would not have done that unless it was fully justified by the net profit for the year, and the general financial state of the company, with no debts, and money in the bank. I believe we had recovered from the effects of the big Depression sooner than the majority of business concerns in Canada.

Then a strange thing happened, at least it seemed strange to me at the time though my doctor did not think it strange; he said in fact that in his view it was normal and he would

have forecast it as possible or even probable if I had asked him for a prognosis.

Early in 1935 I began to feel very much under par physically, so that my ordinary day's work required a far greater effort to keep going till it was done and I could go home. This puzzled me because by then the peak of the battle with the Depression was over and the issue no longer in doubt for us. I thought I should be able to relax to some extent, enjoy better sleep and better digestion than before, but those things seemed to be actually worse.

In the spring I took a short holiday and went to Bermuda to bask in the sunshine and sea-bathing of which I have always been very fond, and which make an ideal holiday for me. I certainly felt some benefit and was able to carry on with my job for a time. However, in 1936 I was definitely worse and sometimes when I woke up in the morning I felt as if my insides had turned to water and I simply could not face a day's work in the office.

It was a strange and very unpleasant feeling and not easy to describe. I had known a number of men who had experienced nervous breakdowns from business life but had always thought of it as something that might happen to others, not myself. And the most puzzling feature was that for us the Depression was over, business improving steadily and long range prospects excellent.

There was, however, one major drawback from my viewpoint, the fact that we were still not doing as much manufacturing in Canada as we should be doing. The result was that we were working very hard to make money for the American company and for the Canadian customs department, and relatively too little for ourselves.

Perhaps the knowledge that this was the case bothered me even more than I realized at the time. In any case by mid-1936 I reached the stage at which my doctor threw up his

hands so to speak. He said he had done all he could for me and that I simply must get away from my business worries for at least two years and possibly three. He was a man of mature age and experience for whom I had great respect; my wife and I regarded him as a careful diagnostician. But carrying out his prescription about getting away for at least two years was more easily said than done, especially about shedding all business worries while I was away.

I felt it was supremely necessary for my peace of mind that I should feel it would not be necessary for me to return unless or until I really wanted to do so.

It was a difficult situation, the main problem being to convince the head of the American company of the need for me to regain my health. In some ways he was a typical high-pressure American business tycoon but he had some traits that I thought were unique, one of these being the extreme difficulty of convincing him of something he did not want to believe, because it did not happen to fit his fixed ideas or plans.

However, he did finally agree to my absence on extended sick-leave. It was my intention to leave Toronto with the main object of living in some place with a milder winter climate, and for us at the time that meant the mildest to be found in Canada, namely Victoria, B.C., which I had first visited when making a business trip to the west coast in 1926, and had decided then that I should like to live there when I retired.

I was fortunate in that my wife liked Canada and had no wish to return to live in England. In my time I had known a number of English girls who came to Canada with their husbands but never liked it or felt really settled as Canadians. Ruth did, however, have some health trouble, some of which was pulmonary — a tendency to catch pleurisy, bronchitis or pneumonia, or even on occasion all three at once. One thing she liked especially was the Canadian habit of keeping houses

comfortably warm by day and night the year round. The winter climate of Victoria is not ideal but for us it is the best in Canada.

We would have liked a family of our own but fate decreed otherwise for us. As it happened my brother George died of pneumonia in Kenya and we undertook to bring up and educate his two young sons. So they came to live with us in Toronto and went to school there and in general took to life in Canada like ducks to water. They both gained admission to the University of Toronto school by competitive examination, which pleased us very much. The school was run by the university in connection with the Ontario College of Education, and had an excellent reputation for the training it gave boys academically and otherwise.

In Victoria the boys both went to Oak Bay High School which also had a good reputation then. After one year there the older boy applied for and was successful in being approved for entry to the Royal Military College in Kingston, Ontario, the Canadian counterpart of Sandhurst in Britain.

The cadet college was known as "R.M.C." and was one place to which parents and guardians could send a young fellow without having to worry what he did with his spare time, which was virtually non-existent, a state of affairs that I still think has a good deal of merit, especially when the college is 3,000 miles from home.

Canada had no naval cadet college then but an arrangement whereby 5 or 6 cadets of each class could "opt" for the navy and finish their training with the Royal Navy in Britain after two years at R.M.C. They could spend the long summer vacations with the Canadian navy, and my nephew Dudley did this in 1938 and '39, so that he was just starting his third year as a cadet when war broke out in September 1939.

He was thus automatically in the navy throughout the war and saw service that took him as far afield as Cape Horn,

Australia, Hong Kong and points between in the Pacific, then on the North Atlantic convoy route and in the English Channel for the D-Day invasion of Normandy.

At the outbreak of war in 1939 the Canadian navy was on a very small scale, the total personnel being about 1,700 of all ranks, divided between the Atlantic and Pacific coasts with the headquarters staff in Ottawa.

I had been away from business life for three years and was feeling in good condition for my age of 51. I was not really keen on going back to business life and the problem of whether to do so or not was settled when I saw a notice in the newspaper to the effect that the Canadian navy needed men with experience in engineering and accountancy.

It seemed like a "Call" and I sent in a brief summary of my experience, and promptly received a telephone message asking me to see the engineer commander in the dockyard at Esquimalt. So I was back in a uniform excavated from the mothballs, and at work in the dockyard before Canada was officially at war with Nazi Germany.

The navy was obviously in for a period of very great expansion as rapidly as it could be done, and the plain truth was that the pay was so small that it could not attract well-qualified men from their civilian jobs at much better pay. Apparently our politicians between the wars were like Good Queen Bess in the sixteenth century, wanting a navy but reluctant to produce the cash.

The navy seemed quite keen to have my services as an engineer lieutenant, telling me I was over-age for active service afloat but wanted for technical work ashore. After my experience in the other war I was obliged to agree that the North Atlantic convoy route was a job for young men. My pay to start with would be \$150 a month with no additional allowances for being married or anything else, preposterously small for anyone with my background of experience. I was a member of the Engineering Institute of Canada and of the Asso-

ciation of Professional Engineers of Ontario, so had professional status.

In my case the pay was not important as I had private income enough to live on without it, so I did not boggle about money but said I would take on the job. After six months or so our pay was somewhat increased all round and marriage allowance instituted, though the total was still quite small for professionally qualified men of the type wanted.

The first job to which I was assigned was one for which I felt well qualified by experience, and which was certainly to my liking. It was to supervise the installation of guns in merchant ships for defence against submarines and aircraft. The work was done by the civilian shipyards in Victoria and Vancouver, and the guns were issued from the stocks on hand in the naval dockyard.

I was surprised by the number of British merchant ships that came into our Pacific ports for this purpose. I was well supplied with blueprints and specifications from the Admiralty which I had to study, so that I could make sure the work was done to their standards.

Some of the ships were already "stiffened" for the low-angle gun mounted on the stern for shooting at submarines. Stiffening meant strengthening the structure of the hull of the ship to withstand the weight of the gun and the force of its recoil when fired. In ships not previously stiffened we had to survey that part of the hull where the gun was to be mounted and design the additional steel to give the needed strength.

The Admiralty instructions laid down time limits for the work that left no time to waste, and stressed the importance of avoiding any unnecessary delay to the ships.

Before starting on this job I had been warned by my seniors that it was well to be on the lookout for the civilian contractors or their men doing things that should not be done. I received the impression that relations between the navy and the contractors were not exactly as good as they might be.

There was a tendency among the contractors to look at naval officers as brass-bound popinjays whose main object was to make life difficult for contractors doing work for them.

I can only say as a result of my experience in the several years of my dealings with the contractors, that I had no trouble at all and that I have felt grateful to them ever since for the full co-operation that they gave me in our joint efforts to get on with the war, and the friendly spirit that marked my relations with them.

An important part of the dockyard organization was the stores department, which was staffed by civil servants, and it was a new experience for me to deal with them and observe their methods as they compared with those of the business organizations with which I was familiar.

When a merchant ship came into Victoria or Vancouver to have a gun installed, I had to request the stores department to issue the gun to the ship in question. Then they had to make out certain forms in quintuplicate which I had to sign. The guns were the property of the British Admiralty and were known as being "on Admiralty Account," as distinct from anything that was the property of the Canadian government.

The time allowed by the Admiralty instructions for fitting a 4-inch low-angle gun in a ship that was already "stiffened" was four days, which included fitting up a magazine for the ammunition, telephone communication from the crows nest to the bridge and from the bridge to the gun platform, accommodation for the gun crew and so on.

There really was no time to waste and I had difficulty in persuading the personnel of the stores department of the need for speed in the formalities of their quintuplicate forms and so on. Of course they had other things to do and possibly regarded me as something of a pest. It seemed to me that it was often more important to them to make sure all the T's were crossed and the I's dotted in their wretched forms, than it was

to be sure the ship was not delayed a day past its scheduled sailing date.

I did try not to be too much of a pest and think in the main my relations with them were good; some of the contractors said I was the only naval officer who got such things as guns delivered in time to avoid delay in their part of the job.

the meaning of the word, from the name of a German scientist, Dr. Karl Gauss, who gave it to a unit for measuring magnetic intensity, equal to one line of magnetic force per square centimeter.

It may have been due to the fact that I happened to have this odd scrap of information ready one day when my boss asked the question, that he began to pass over to me the volumes of data from the Admiralty that were arriving on the subject of degaussing ships. So I had to do a lot of homework studying the details of the research being done in all haste by the scientists in Britain, to find the most practical means of protecting ships against magnetic mines.

Then I found I had a new job in addition to the one I had before and the title of Degaussing Officer. I have always loved ships and trying to protect them from the machinations of our enemies appealed to me very strongly.

Everything to do with degaussing was supposed to be highly classified and not to be talked about even in the officers' mess, though there was a great deal of interest in the subject. Navigators were interested because the gear we began to install in warships and merchant vessels alike, known as "Degaussing Gear" had an effect on the magnetic compasses on which the navigators depended.

One day at lunch in the mess another officer asked me across the table some question about degaussing. It was a simple question with nothing abstruse or secret about it, but after lunch in the reading room I was taken to task by a technical officer senior to me in rank, about breaching secrecy on "D.G." as it was coming to be known.

So I went over to the magazine table and picked up the current issue of one of the English weekly illustrated journals, the centre pages of which had a full size "spread" of either the *Queen Mary* or the *Queen Elizabeth* arriving in New York harbour, with the D.G. coils around the outside of her hull, and a more or less detailed description of the whole business.

with were in Vancouver and I had to spend much time there, usually making the journey to and from Victoria in the overnight passenger ships operated by the Canadian Pacific Railway, a very comfortable and convenient way of travelling without waste of daylight working time. In Vancouver I could and usually did stay at the newly opened Vancouver Hotel built by the Canadian National Railways, where I could have luxurious accommodation for the "Military Rate" of \$2.50 a day. At the time the hotel seemed to be only about half full but this changed as time and the war went on, and the rate went up somewhat.

I believe it was in the autumn of 1939 that the Germans began to lay their magnetic mines where they were likely to be most effective in the coastal waters of Britain. This was one of the secret weapons that Hitler boasted about when he felt like doing some boasting. It was certainly a nasty one from our point of view.

The British were not prepared for it and had to improvise defensive measures as they have so often been obliged to do. We began to hear about a mysterious new process known as "Degaussing" ships as a counter measure, and I looked up



So much for secrecy! The United States was not then in the war.

As time went on the business of "D.G." became more and more complicated and technical, as research was done and new ideas and theories developed by the scientists working on the problem. We soon stopped putting the coils of electric cables outside the hulls and put them in the scuppers, then inside the hulls at about the waterline of the ship. That was 27 years ago and for all I know the whole idea may have been abandoned now, but it kept me on the alert and working hard to keep up with developments during the war.

In 1940 the field of my activities was extended when I was sent to Seattle and later on to most of the ports on the Pacific coast of the United States as far south as San Pedro, in connection with arming ships as well as "D.G." Some of the ships were Dutch or Norwegian and some were ships that had been laid up since the first World War, and were bought by the British in their desperate struggle to replace ships sunk by German submarines or commerce raiders, faster than new ships could be built.

When I was in the United States I wore "civvies" instead of uniform but my Canadian passport had my naval rank and photograph in uniform, and I kept in touch with the British consulates, each of which had a British naval officer attached to the staff under the euphemistic title of Consular Shipping Adviser. In the United States I was said to be "on loan" to the Royal Navy, and my boss was Rear-Admiral F. R. Barry, R.N. who was in New York, his office being in the Cunard Building at 25 Broadway, where the office of the British Ministry of War Transport was, with Sir Ashley Sparks in charge.

Admiral Barry left the west coast of the United States to me and I never met him till later, after the United States had entered the war and the U.S. navy had taken over what I had been doing in their country. I liked him very much.

I was happy with the arrangement because I have always

liked to have responsibility and relative freedom from red tape. In my business life I was accustomed to being my own boss, taking full responsibility.

In Canada my efforts to achieve efficiency were somewhat hampered by bureaucratic red tape. When dealing with Canadian ships especially I was supposed to send a signal to Ottawa asking for approval before doing anything to a ship. Sometimes the reply to my signal did not arrive for some days or even three weeks or so, which might be entirely too late. The delay might have been unavoidable but I had a shrewd suspicion that it could be caused by some young spriggins in his nice, new naval uniform, going to too many dances and cocktail parties in the hectic, wartime social life of the nation's capital, instead of giving his duties the close attention they should have. I had a brief glimpse of the state of affairs on one occasion when I was summoned to Ottawa to attend a conference at Naval Service Headquarters.

Prior to the Japanese attack on Pearl Harbour many Americans were stoutly opposed to their country becoming directly involved in the war. Their President Roosevelt went to considerable lengths to convince them that it might not be possible for them to maintain this detached attitude indefinitely, especially in view of the aggressive policy of Japan.

My work was hampered to some extent by the fact that the commercial shipyards on the Pacific coast were becoming very fully occupied with work for the U.S. navy, undertaken as part of the policy of the Administration in Washington to increase preparedness for war, should it come.

In connection with degaussing British or Dutch or Norwegian merchant ships I had some contact with some personnel of the United States navy who were of course much interested in the subject and carrying on their own research. I found them very friendly and co-operative though much given to taking the weekends off duty for golf, swimming and other diversions.

I had long been accustomed to hearing and reading American jokes about the typical British business man and his long weekends, but I felt that some Americans had not only adopted the habit but to some extent improved on the best efforts of the English.

I was really working quite hard at the time, trying to be in two or three widely separated places at once, living in hotels and working in the evenings (and weekends) at the design of degaussing gear for ships I had surveyed in the daylight working hours. I bought my first portable typewriter so that I could write up the specifications to give to the contractor in the morning, thus (I hoped) enabling him to start work that much sooner.

Fortunately by this time I had an assistant in Victoria, a young B.Sc. graduate in electrical engineering from the Maritimes. In due course we were able to establish a D.G. office in Vancouver and as time went on the total organization of my department built up to 85 of all ranks, in Vancouver and Victoria, and I was given the impressive title of Superintendent Inspector Degaussing West Coast, and as head of the department I was ex-officio on the staff of the Commanding Officer Pacific Coast, known as C.O.P.C. for short, my own abbreviation being S.I.D.G., West Coast.

On July 1st, 1941 I was promoted to Lieut.-Cmdr. (Acting) which was pleasant though I thought actually somewhat tardy. When I was asked if I would accept appointment as Lieut. (E) nearly two years before, I did balk mildly on the ground that I felt my age of 51, my status as a fully qualified professional engineer, my previous war service, not to mention the senior executive position I had held in my civilian occupation, all justified appointment as lieutenant-commander.

Later on I had reason to think the answer I was given was probably cooked up on the spur of the moment. It was to the effect that the rules prevented them bringing me into the service with any rank higher than lieutenant, but that they

were practically certain I would be promoted in a few months, meaning presumably the following New Year.

If such a rule really existed it was very soon shelved when they found they simply could not get men with the technical qualifications they wanted for \$150 a month. So they brought in several men much younger than me, too young to have served in World War I, and certainly no better qualified technically than myself (if as well), with the rank of Lieut.-Cmdr. (E), so senior to me in the navy list. I was confirmed in the rank on January 1st, 1943, three years and three months late. On one occasion when I discussed the matter with my boss in Esquimalt, he replied, "Well you don't need the money do you," which was so far from my idea of the correct attitude that I felt there was no point in pursuing the subject. Actually I thought there was far too much of that kind of attitude among some of the senior officers toward civilians whose services they certainly needed during the war.

I don't know if the army and air force were similar but I am reminded of a passage I read in a book about the armed services of Britain, written if I remember correctly by Field Marshal Montgomery, "Between the wars they chose badly by any standard, if indeed they understood at all what standards were required."

How does an average politician tell a top-notch admiral or general or air marshal from a mediocre one? Probably the answer is that too often he does not. From observation I suspect that our politicians in Ottawa tended to bring to the top those senior officers who seemed most ready to fall in line with their wishes to run a miniscule navy on a financial shoe-string, because that is what was done.

Among the many ships I was responsible for arming or degaussing or both, some stand out in my memory more than others. One was a British ship of a well-known line owned in Glasgow. When I went on board and introduced myself to the captain he told me that he had been shipmates with one of

my older brothers as an apprentice or cadet in a square-rigged sailing ship called the *Yola* in 1894, on a voyage to Portland, Oregon, with general cargo, returning to Britain with wheat.

Another ship was unique in being one of the very few German ships captured by us intact without being scuttled or even damaged, despite the strict orders of Hitler that this should not happen. She was the 12,000 ton *M/V Weser* which took refuge in the Mexican port of Manzanillo when war broke out, and was captured in a very smart bit of work by the newly commissioned Canadian light cruiser, H.M.C.S. *Prince Robert*.

Through the British Intelligence Service we heard that the *Weser* was preparing to leave the neutral shelter of Manzanillo and the *Prince Robert* went down there for the express purpose of trying to capture her, and succeeded immediately she left Mexican territorial waters one dark night.

The German ship was brought as a prize of war to Victoria where we armed and degaussed her after which she went to the Atlantic to carry cargoes of munitions to Britain, making several trips before she was sunk by German aeroplanes.

She was one of several ships designed to serve as freighters in peace and to be easily converted to commerce raiders in war. Armed with 5.9" guns and a speed of 19 knots with twin diesel engines, they could carry enough fuel to remain at sea for many months without needing to replenish bunkers, and could give battle to light cruisers armed with 6" guns if necessary, as one of them did to the Australian cruiser, H.M.A.S. *Sydney*, when both ships were burned and sunk with no survivors.

The *Weser* was renamed by us the *Vancouver Island*. Her German crew were tough, brash young Nazis, full of "Hoch der Vaterland" and "Heil Hitler" and convinced that they would take over Canada among other countries after the war. They were taken inland to be interned and I never heard what

became of them eventually. Some of them may have returned as immigrants after the war!

Another ship of which I have pleasant memories is the Dutch *M/V Klipfontein* which was on her maiden voyage around Africa when the German armies crashed into Holland. When I met her in 1941 she was running from San Francisco and San Pedro across the Pacific to Indonesia, Calcutta and "way points." She was a new ship and had some of the best passenger accommodation I had ever seen for as many as 150 people, as well as cargo.

The captain was an elderly man who was extremely pleasant to me but seemed to worry too much about the effect of the degaussing gear on the magnetic compasses. To try to reassure him I went to some trouble to get what we called "Compass Corrector Gear" designed by scientists of the United States navy and made by the civilian contractors for the *Klipfontein*. My reward came in the form of a cable from Honolulu which read, "Compasses more better as before," which gave me quite a kick.

The ship was equipped with a gyro-compass but these do sometimes go out of order, and if it is beyond the resources of the ship's electrician to correct the defect, the navigator must rely on the old-fashioned magnetic compass.

At this time the Japanese special mission was in Washington carrying on with oriental subtlety the long-drawn-out negotiations with President Roosevelt, ostensibly with the object of settling differences between the two countries without resort to war, but actually killing time till what was regarded as the psychological moment for the treacherous attack on Pearl Harbour.

It seemed as if the Dutch had no illusions about the intentions of the Japanese. Some months before the attack the Dutch ships trading in the Pacific were ordered to have the stiffening for guns installed, also degaussing gear, both of

which brought them into the field of my operations. The guns were actually installed in Sourabaya.

My dealings with the personnel of the U.S. navy were pleasant and friendly and in my work I was glad of their co-operation, but I could not help feeling that they underestimated the Japanese, especially when I remembered the occasion when they started their war with Russia in the first decade of the present century, by a surprise attack on Port Arthur without the formality of declaring war.

In view of the record I felt strongly that the whole attitude of the personnel of the American armed services whom I met, was much too relaxed and confident in the great military and industrial might of their country; they were certain that the Japanese would not dare to attack them. So on Sunday, December 7th, their armed services in Hawaii were not really on the alert but "week-ending as usual."

When the bombs fell on Pearl Harbour my wife and I were concerned as we knew that H.M.C.S. *Prince Robert* was somewhere in that part of the Pacific Ocean and that she was no match for the Japanese navy, being only a former passenger ship of about 6,000 tons and 23 knots, converted into a light cruiser. Our nephew Dudley was a sub-lieutenant on board her.

She was returning to Canada after escorting a troopship to Hong Kong with two battalions of infantry that arrived just in time to surrender to the Japanese after a brief but sanguinary period of fighting against hopeless odds.

A week or so after the blitz at Pearl Harbour the *Prince Robert* arrived in our naval base at Esquimalt and we learned that she had left Honolulu a matter of hours before the attack, so she had a narrow escape. The captain told me he had expected orders sent in care of the U.S. navy and was surprised on arrival to find they were locked up in the vault that could not be opened till the time-lock functioned in the morning of the 7th. He thought that was an extraordinary state of affairs

even allowing for the fact that Canada was not at war with Japan when the arrangement was made, though we had been at war with Germany and Italy for more than two years.

In the years since then I have met a number of Americans who are firmly convinced that their President Roosevelt was a party to the plot to blitz Pearl Harbour in order to force his country into the war. I have never been able to accept this theory though I was never an admirer of Roosevelt. Apart from any question of war or peace I think some of his policies were definitely harmful to Canada as well as to his own country.

I have discussed these matters with American naval officers who were not involved in any way and believe they agreed with me that under the circumstances it was a mistake to have the secret code books kept under a time-lock at night. One I met more recently told me that there was actually an important despatch from Washington waiting to be decoded when the time-lock functioned on the morning of the 7th, but this might be gossip, and I have no idea whether it could have saved them being caught flat-footed if this despatch had been decoded as soon as possible after being received in Pearl Harbour, or in fact whether it had anything to do with the blitz.

My friends on the *Prince Robert* also told me that while on passage from Hong Kong to Pearl Harbour they noticed wireless activity they could not understand or make anything of, which must have been from the Japanese fleet which was also on the way but not in sight, of course. They reported this on arrival at Pearl Harbour but said their report did not seem to attract much interest. I feel sure that the Japanese knew at least as much as I did about the week-ending habits of the U.S. navy personnel, and the timing of the blitz for 7 a.m. on Sunday was perfect.

For me the entry of the United States into the war meant that their navy took over the work I was doing on their side