

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

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.

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

of the Canadian border and I packed up my office in San Francisco and stopped trying to be on both sides of the border at once, which was something of a relief though I had enjoyed the work in the United States and found it most interesting.

At home in Victoria I found the war had moved closer to us and we had to black out our homes and everything else at night, lest the Japanese should have ideas about repeating their success at Pearl Harbour on the coast of continental North America. We were very poorly equipped to cope with them if they came because Canada had been stripped of arms of all kinds, to help re-arm Britain after the fall of France and the disaster at Dunquerque. The Canadian navy was concentrated on the North Atlantic convoy route and the army had two Bofors anti-aircraft guns in use for training on the west coast, and little ammunition.

The shipyards on our west coast built a number of smaller naval vessels such as frigates, corvettes and minesweepers, but these were hustled round to the Atlantic side as soon as they were commissioned. We also built 100 or more of the standard design 10,000 ton cargo ships which likewise vanished to all parts of the seven seas as soon as they were finished. One of these was torpedoed by a Japanese submarine within about 100 miles of Victoria on her maiden voyage. As she was loaded with lumber we were able to float her into our big drydock to be repaired.

Soon after the fall of Singapore we had the S/S *Queen Elizabeth* in the drydock with the biggest barnacles I ever saw on her hull below the waterline. She had been carrying Australian troops to Singapore and was overdue for drydocking to clean off the barnacles which were large and numerous enough to cause some reduction in speed. She left Victoria to start the job of carrying American troops to Australia. At this date she could carry 12,000 troops at a time but after some changes in the arrangements for feeding them she could and did take 20,000.

It was amusing to note how many people who regarded themselves as well informed about all matters to do with shipping, had apparently not heard of the existence of our drydock at Esquimalt before, big enough to take Cunard Co.'s big *Queens* with room to spare lengthways if rather a close fit for depth. The first time the *Elizabeth* went in some of the large wooden blocks on which the keel rests, came floating up to the surface, and when the captain saw this he insisted on backing his ship out again and was with difficulty persuaded to make another attempt the next day, which was fortunately successful.

This big ship had apparently never stayed in one place long enough to have degaussing gear fitted though some bits and pieces of the gear were stowed in various places on board. I looked it over and decided we could do nothing to help matters in the few days she was going to be with us.

As time went on in 1942 rumours began to circulate about the part to be played by the Canadian navy in the invasion of Europe when it should come to pass. In 1943 we began to be very busy with the work of preparing, repairing and altering a number of craft for the various functions to be performed with the object of actually landing an army on the coast of France, whether it be in the English Channel or the Mediterranean.

In December 1943 we were set back rather seriously by an unusual amount of fog, actually 19 days in the one month on which no ships could move in Vancouver harbour, while the rumour mills worked overtime about cables said to be received from the Admiralty fixing deadline dates for ships to reach England, causing the officers appointed to command them to have stomach ulcers worrying about possibly missing the great opportunity of their lives to attain a niche in the hall of fame, by playing an active part in a great historic event. Those I knew were extremely keen on the job they had to do regardless of the possible hazards.