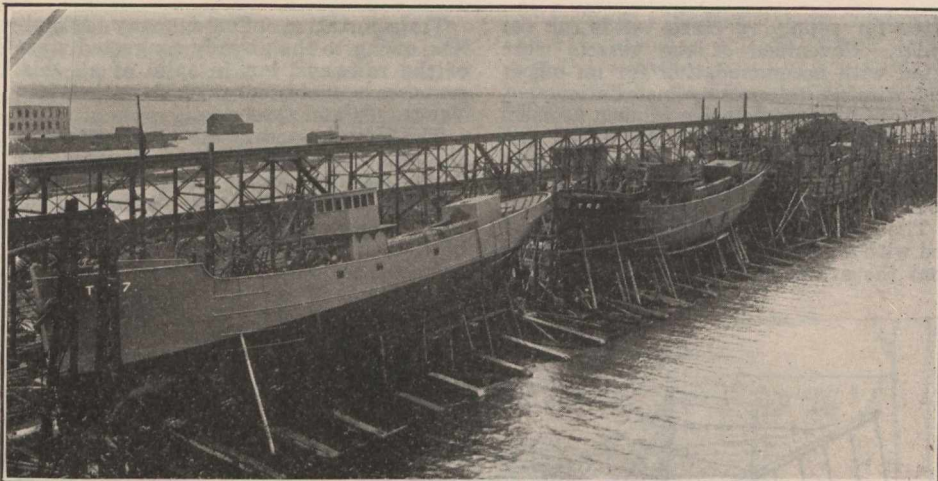
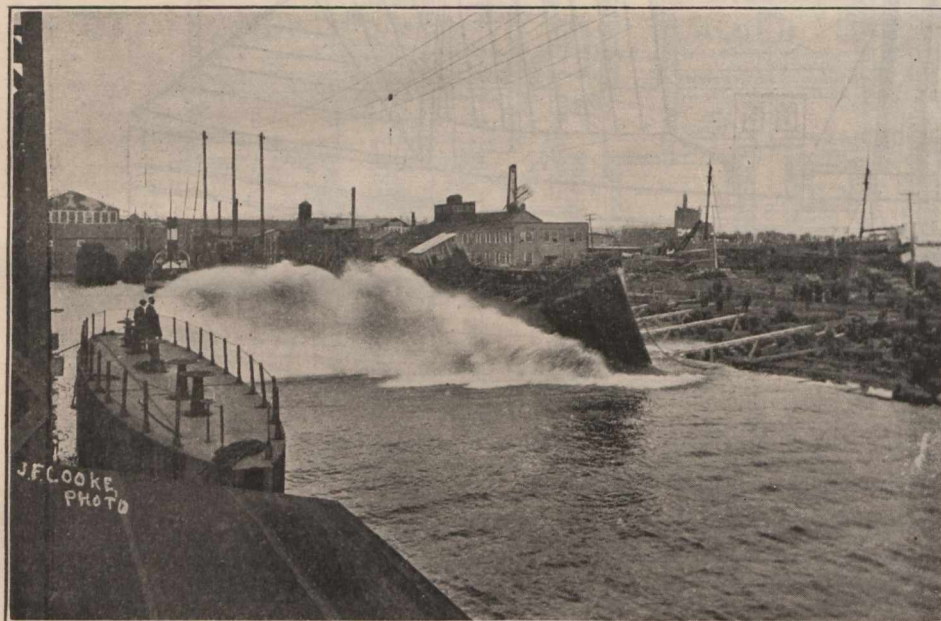


ates the coast stations, inspects all ship stations and operates wireless installation on government ships.

The limited dimensions of these vessels presented a somewhat difficult problem in wireless equipment, but as this was indispensable, and the utility of the vessels largely dependent on their ability to maintain efficient wireless communication, it was essential that this problem should be solved, and after careful consideration and experiment the "cabinet set" was evolved and constructed in the Marconi Telegraph Co.'s factory at Montreal. The result has proved very satisfactory, as the whole installation occupies very small space, and can practically be placed on an ordinary desk, whilst communication could be kept up at 150 miles radius. The cabinets were finished in mahogany and ebonite, and specially designed to withstand the hardest wear and tear which would be encountered at sea, as the work



Steel steam trawler T.R. 7, ready for launching by Collingwood Shipbuilding Co.



Steel steam trawler, being launched by Port Arthur Shipbuilding Co.

is particularly arduous on such small vessels as trawlers and drifters.

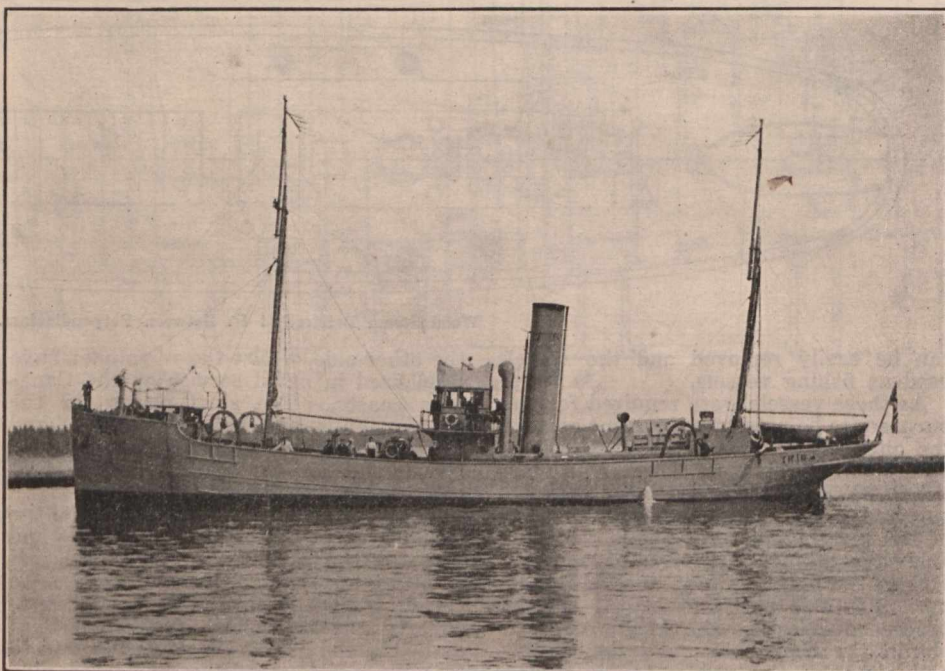
Without going into details beyond the scope of this article, the operator's procedure in receiving signals is briefly as follows: A steel needle, not unlike a phonograph needle, is set upon a crystal of carborundum, so as to detect incoming signals, which are made audible by means of a pair of telephones. Having detected signals and made one or two simple adjustments, the operator next proceeds to "tune," that is, to set his receiver in resonance with the distant transmitter, so as to obtain maximum response in his telephones, and this is accomplished by turning an ebonite knob which works a resistance and obtains the desired effect. By following this "tune" until the signal is clearly received, the interference of any other station may be subdued and communication carried on without interruption.

The main aim in designing these sets was to embrace both simplicity and efficiency, so that an ordinary operator would be able to carry out any slight adjustments and the sets be worked with practically no attention whatever. The Marconi Co. met this need in its up-to-date factory in Montreal, and turned out the whole of the instruments for this service,

which, considering the abnormal amount of work which was passing through its hands, reflects great credit upon its enterprise. The completed sets were delivered to the vessels and the installation carried out by the Naval Service's Radio Telegraph Department, and in many cases only two days elapsed from the time that the sets were delivered until they were in working order.

The greater part of this work has long since been completed. A few of the vessels have been sent overseas, but almost the entire fleet has been employed under the Naval Service Department for patrol service and anti-submarine defence work on the Atlantic coast. For obvious reasons, this work was done without publicity, but now that the necessity for secrecy has disappeared, too much cannot be said for the way in which Mr. Norcross and his able staff have carried out this great undertaking, and have constructed 160 vessels to guard our shores, and engage in the protection of our transports from the attacks of the enemy's submarines.

This undertaking has also proved of immense value and education to Canadian



Steel steam trawler, built by Polson Iron Works.