

Even were wireless telephony practicable at the present day there would, until it was universally adopted by ships, remain the serious disadvantage that while the wireless-telephone ship "A" could call the wireless-telegraph ship "B," "B" could not reply, because "A" would not have an officer trained to read auditory morse. Similarly, if ship "B" were in distress it could obtain no assistance from ship "A," for the same reason. It may be presumed, however, that the rapid progress being made in wireless research work will in all probability evolve a wireless telephone suitable for small ships.

After full consideration of all the circumstances it was decided meantime to extend the application of the regulations down to ships carrying twenty persons, which means that in the future wireless-telegraph installations will be required on all ships which (a) are authorized to carry twelve passengers or over, (b) whose crew plus the number of passengers the ship is authorized to carry exceeds twenty persons, (c) over 1,600 tons gross register.

SURVEY OF SHIPS.

The numbers of certificates of survey issued during the year are as follows: Seagoing steamships and auxiliary-powered vessels, 209; steamships and auxiliary-powered vessels plying within restricted limits, 581; sailing-vessels, 26; making a total of 816, as compared with a total of 794 for the previous year. A number of sailing-vessels, principally of the scow type, have had oil-engines installed. Proper precautions were taken to secure immunity from fire by isolating the machinery in fire-resisting and watertight compartments. Plans of a gravel suction dredge and a boiler for a ferry-steamer were approved. Investigation was made as to the stability of a number of passenger-vessels plying in river limits. Under existing conditions these vessels were found to be safe provided the passengers and cargo were distributed as permitted by the certificates, but approval of extensions to the passenger accommodation could not be recommended. It was found necessary to require extensive repairs to many vessels. 324 vessels were surveyed for seaworthiness and efficiency under section 226 of the Act. Circulars relating to the following items were issued during the year: Wooden derricks, anchors and cables, coal-carrying vessels, and electrical installations in ships carrying benzine.

REGULATIONS.—SAFE WORKING-LOADS FOR CARGO GEAR.

Regulations governing the safe working-loads for chains and ropes, including the usual attachments such as hooks, shackles, &c., used for working cargo on board ships, hulks, or lighters, came into force on the 1st January, 1927. The object of these regulations is to ensure as far as is humanly possible the safety of all persons engaged in working cargo on board ships. Overloading is a common cause of accidents to lifting-appliances, and it is universally recognized as a precaution against such accidents that information relating to the safe working-loads for a lifting-appliance should be readily available to the user. The regulations contain numerous tables of safe working-loads for all sizes of chain and rope, so that the safe working-load can be ascertained without calculation of any sort.

In the fixing of the safe working-loads, quality of material had to be considered as well as dimension. To ensure quality, chains and ropes, &c., are required to have been tested to prescribed breaking-loads and in other ways. The regulations also deal with worn chain (the revised regulations referred to below with worn wire rope also), and with dangerous practices in the working of cargo gear. Since the regulations came into force some minor amendments have been considered advisable, chiefly in regard to fibre ropes. For heavy lifts, ropes of the minimum possible circumference are favoured, so that, in the case of yardarms, the rope may be more easily handled, especially when wet; and in the case of slings, so that the cargo will be more tightly held in the sling without danger of its slipping out. These difficulties have been largely overcome by provision being made for an additional grade of fibre rope having a breaking-load 25 per cent. in excess of that of the ordinary-grade rope provided for in the original tables. The revised regulations came into force on the 1st June, 1927.

Numerous conferences have been held between representatives of shipowners, Harbour Boards, waterside workers, and fibre-rope manufacturers and the Department. It is well known that great differences of opinion exist amongst users of lifting-appliances as to what are suitable factors of safety, and, as was expected, there was much controversy at the conferences on this aspect of the regulations. As an instance of the lack of uniformity in safe loads, I may say that the opinions of recognized authorities on chain selected from all available sources abroad vary to the extent of from 3 to 8 tons as the safe load for a 1 in. chain. The divergence of opinion in regard to fibre ropes is even greater still. Notwithstanding these difficulties, it has been possible to secure agreement. It is hoped that the regulations, embodying as they do many useful suggestions from sources of conflicting interests, will be found helpful as a work of reference for users of lifting-appliances, whether they are experts or not, and that they will prove beneficial in minimizing the number of accidents on the waterfront.

TRANSPORTATION OF SULPHURIC ACID.

Earlier in the year representations were made by the Waterside Workers' Federation urging that regulations should be made with the object of securing a greater measure of safety to those concerned in the handling of sulphuric-acid containers during transport, and also of protection of claims for compensation for injury, particularly in cases where the claim is based on negligence on the part of a consignor who is domiciled outside New Zealand.

It was suggested that the Sea Carriage of Goods Act, which provides that neither ship, her owners, agent, or master shall be held liable from losses arising from inherent defect, quality, or vice of the thing carried, or from insufficiency of the package, should be amended in the direction of placing on the shipowners such liability in the case of special claims for compensation. The object of this was to avoid the necessity of suing a consignor in his own country, an exceedingly expensive process which may be impossible for the injured person.