

erably below the old peace-time level. There are now probably over 55 million tons of serviceable shipping seeking employment, compared with 42 million tons before the war. Our chief export in bulk, and one which at one time provided the principal employment of British tramp tonnage, was coal, but exports have fallen in 1921 to 24,660,522 tons, as against 24,931,853 tons in 1920 and 73,400,118 tons in 1913. Both liner and tramp tonnage have had to cut rates considerably during the year, sometimes accepting unremunerative figures, and, despite the fall in ships' stores, bunkers, insurance and seamen's wages, losses even on cheaply-constructed and efficiently-managed ships have been frequent. The cost of loading and discharging and general port dues requires to be further reduced in 1922 if shipping is to be restored to a healthy condition.

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THE COMMISSION which was appointed in December, 1921, to determine the most efficient plans for carrying out the recommendations of the Imperial Wireless Telegraphy Committee, have now made their report. They recommend that the transmitting stations in England, Canada, Australia, South Africa, India and Egypt, should be equipped with thermionic valves, but that at East Africa, Hong Kong, and Singapore, arc stations be fitted, with space reserved for the addition of thermionic valves when found convenient. The Commission suggest the erection of a new station near Johannesburg. The thermionic valve sets should be fitted so as to be capable of transmitting continuously at hand speed and at 90 words per minute at full power for receiving at 2,500 miles. It is also recommended that the Marconi Company be invited to tender for a certain part of the equipment.

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FROM ROTTERDAM comes the news of an unusual piece of towing performed by the Dutch tugboat, "Zwarte Zee," one of the famous fleet of Messrs. L. Smit & Co., Rotterdam. The steamer "Vesta," 1,620 tons, of Flensburg, while on a voyage from Hamburg to Lisbon with a cargo of naphthalene on deck, was set on fire through the spontaneous combustion of this deck cargo. Ten of the crew and the young wife of the chief officer lost their lives, while the remainder of the crew were rescued by the trawler L. T. 1124 of Lowestoft. The

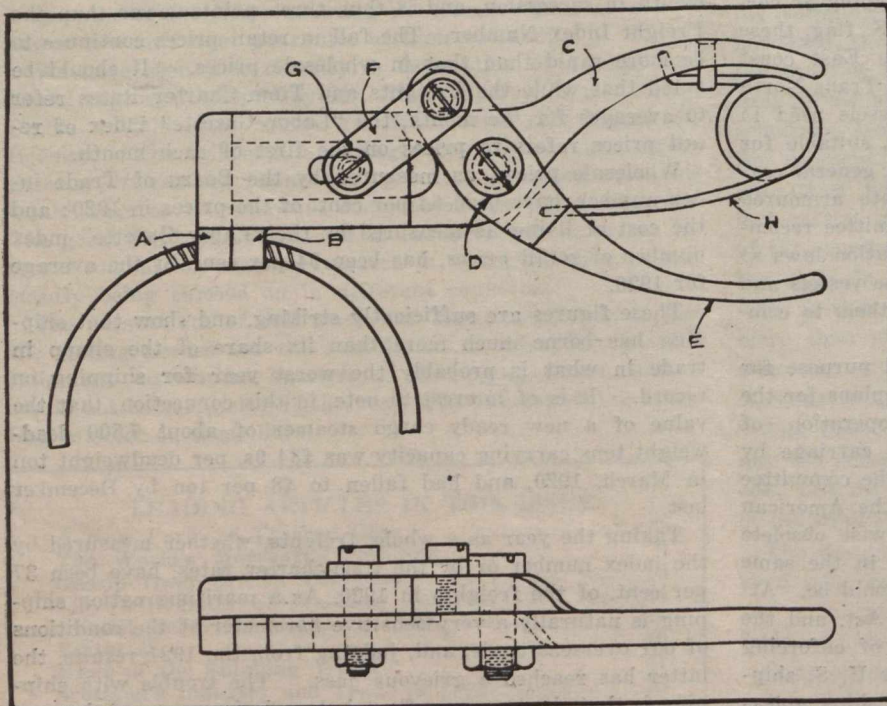
burning wreck was left to drift. Soon wireless reports began to come in from vessels which had narrowly averted collision with the derelict, with the result that the "Zwarte Zee" was sent out to search for her. She was discovered still burning about 56 miles west of the New Waterway, and the "Zwarte Zee" set about the highly dangerous task of making a line fast and towing her in. This was successfully accomplished, and the report says that the heat of the vessel's hull was so intense that the water round her hissed and boiled as she was towed into the harbor. The fire burnt itself out shortly after her arrival, having nothing left to feed on, but the whole of the cargo was destroyed, while the vessel herself was completely gutted.

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THE NEW White Star liner, "Homeric," after completing very satisfactory trials, went round from Hamourg to Southampton, and sailed for New York on her maiden trip on February 15th. The "Homeric," which is a vessel of 35,000 tons, was built for the Norddeutscher Lloyd under the name of the "Columbus," but was surrendered under the peace terms by the German Government, and bought by her present owners from the Reparations Committee. She, together with the "Olympic" and the "Majestic," will be the three White Star liners to carry on the North Atlantic trade for the immediate future.

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AN EXAMPLE of the power which the Seamen and Stewards' Union wields in Australia is given in the case of the crew of the "Moreton Bay," one of the Commonwealth Government liners. The crew were signed on in England, and at the time were assured that they would be allowed to join the Union when they reached Australia, so that their positions would be secure. However, when they reached the Colonies, the union refused them permission to join them, the result being that they were refused admission to the country on the ground that they were destitute immigrants. The owners of the "Moreton Bay," to wit, the Commonwealth Government, have therefore to carry them back to England as passengers, a somewhat expensive proceeding. In the down-under colonies a trade union has power and authority which it uses in a manner that can be called at least arbitrary.



Showing the method of using the pliers.

TOGGLE ACTION PLIERS

By F. M.

An unusual construction as applied to pliers is shown by the accompanying illustration inasmuch as the action of squeezing the pliers causes the jaws to open parallel with the pliers in such a way that they hold open the spring tempered ring shown in position.

These pliers consist of a pair of jaws A and B, jaw B is in part an extension of handle and frame C, attached to C by means of a pivot screw. D is a handle E, arranged in such a manner as to form a toggle. Operated by E is a link F. This is attached to jaw A by means of a screw G passing through an elongated slot in the frame portion of jaw B. In addition a spring H holds the operative handles apart, thus it is evident that by merely pushing the handles together, through the medium of link F, the jaws A and B are caused to spread apart to perform the desired function of opening the ring.