

(Continued from page 204.)

(c) Samples for tensile test may be clamped in the jaws of the testing machine in the usual manner to facilitate testing, but in case of failure or dispute on individual tests, and at the request of the manufacturer, check tests shall be made by socketing the samples with pure zinc.

(d) Cable for use in the construction of aircraft shall meet the required breaking strength specified in the table.

**Bend Test.**—(e) One bend test is to be made on a sample cut from each reel of cable of a given size. Each sample must be bent once around its own diameter and straightened again at least 20 times in succession in the same direction of bending without any of the wires breaking.

**Torsion Test.**—(f) A torsion test is to be made on one wire from each sample of cable taken for tensile test. The wire is to be gripped by two vices 8 in. (203 mm.) apart; one vice shall be turned uniformly at as high a rate of speed as possible without perceptibly heating the wire. One vice shall have free axial movement in either direction.

(g) The number of complete turns which the wire shall stand is determined by the formula:

Number of turns

$$= \frac{2.2}{\text{diameter in inches}} - \frac{55.9}{\text{diameter in millimetres}}$$

(h) Failure of one piece of wire to show full number of turns specified in the above torsion test shall not be considered cause for rejection, but in such case two additional tests shall



**Seaplane v. Submarine.**

THE following story of the destruction of a submarine by a French seaplane was semi-officially issued in Paris on Feb. 14th:—

Quite recently, while patrolling the Channel, two of our seaplanes observed an enemy submarine floating on the surface. Making a sharp turn, the pilot of the leading seaplane brought his machine into such a position towards the sun that he could see better without being seen. He then proceeded to attack the submarine, followed by the second seaplane. The submarine submerged, but the conning tower had not disappeared before the seaplanes, having dived to a low altitude, dropped their bombs right on their objective.

be made on two more wires from the same sample of cable, and if both samples meet the requirements of the specification, the cable shall be accepted in this respect.

**DIMENSIONS AND TOLERANCES.**—6. There shall be no permissible variation in diameter below size. Cable having a diameter of 0.125 ( $\frac{1}{8}$ ) to 0.187 ( $\frac{3}{16}$ ) in. (3.18 to 4.76 mm.), inclusive, shall have a permissible variation of 10 per cent. above size, and cable having a diameter of 0.218 ( $\frac{7}{32}$ ) to 0.375 ( $\frac{3}{8}$ ) in. (5.56 to 9.53 mm.), inclusive, shall have a permissible variation of 7 per cent. above size.

**DELIVERY, PACKING AND SHIPPING.**—7. (a) All cable shall be shipped on reels in lengths as specified on orders.

(b) The dimensions of reels for different lengths and sizes of cable shall conform to the table attached to this specification.

(c) A tinned or galvanised steel seal wire of approved design shall pass around no less than three convolutions of the cable on the reel and shall pass through a linen tag showing the name of the manufacturer, the size and length of cable on the reel, the order number or other distinguishing marks, and a record of the test for tensile strength. A lead seal impressed with the official stamp of the representative of the Government making the inspection shall secure the ends of this seal wire and furnish evidence of inspection and acceptance.

(d) The outer layers of cable on a reel ready for shipment shall be protected from mechanical injury in handling and transportation by an efficient covering of burlap.

(To be continued.)

The leading machine then returned to its base for a further supply of bombs, leaving the other machine to keep a lookout. The latter, a few seconds after the attack, saw the fore part of the submarine emerge at an angle of 45 degrees. Then the submarine slowly rose to the surface, without, however, being able to regain a horizontal position, and again disappeared in a violent whirlpool.

Three times at short intervals the submarine attempted to rise to the surface, taking at each attempt a stronger list to starboard. Then the observer saw the whole of the submarine's port side exposed, while the submarine rested on its beam ends. Finally, the vessel disappeared without having succeeded in getting its conning tower above water.



R.F.C. SALVAGE WORK.—Renovating and re-assembling aeroplanes.

“British Official.”