

## FUZES.

There are two classes of Fuzes in use in the service ; viz., Time and Percussion.

*Time Fuzes* are ignited by the shock or flash of discharge, and are so arranged as to communicate fire to the bursting charge at the expiration of an interval of time.

*Percussion Fuzes* communicate fire to the bursting charge when the shell strikes or grazes.

## TIME FUZES.

*The 15 Seconds M. L. Fuze* is conical in shape, is made of beech wood, has the composition channel in the centre, driven with 2 inches of slow burning composition (one inch in  $7\frac{1}{2}$  seconds.) Above this is a pellet of meal powder  $\frac{3}{4}$  of an inch long, having a hole bored down its centre. There are six powder channels, connected at the bottom by quickmatch, in a circular groove, and pressed into the bottom of each channel. The paper scale gives intervals corresponding to half seconds and quarter seconds of time of burning. The fuze is painted black and drab, with yellow marks showing side holes, and black lettering.

## PERCUSSION FUZES.

*General Service.*—This fuze consists of a gun metal cylinder slightly conical in form. It is threaded throughout to the G. S. gauge. There are two holes in the head by which it is screwed into the shell. Inside there is a top screw plug, plain brass ball, detonating ring, steady plug with two fire-holes, detonating ball, cone plug with cylinder attached, driven like a tube and having three fire-holes, a lead cup, a copper suspending wire, and bottom screw plug with hole in the centre.

*Action.*—On discharge the wire is sheared and lead cup crushed up, which brings with it the cone plug. This frees the detonating and plain balls. On the shell striking an object, the plain ball strikes the detonating ring and ignites it. The flame passes through the steady plug and ignites detonating ball, if not already ignited by striking the body of the fuze. The flame then passes through the cone plug to the priming in the cylinder and from that to the bursting charge. This fuze does not act on graze nor when fired with reduced charges.

*R. L. Mark II.*—This fuze acts on graze or impact, and consists of a body and bottom plug ; in the centre of the top is a steel needle pointing downwards ; below this is a guard on