

*A Common Shell* is made of cast iron having a cylindrical body and ogival head in one piece. Is cast thicker at the base and head than at the walls, which are sufficiently strong to withstand the shock of discharge. Is cast hollow, lacquered internally to prevent premature explosion. Has a gun metal fuze socket tapped to the G. S. gauge to receive a percussion fuze or gun metal screw plug. The 64pr. shell has three rows of copper studs, three in a row, set on at an angle of one turn in forty calibres to correspond with the rifling. Is painted black, except the studs, and is about 16 inches long.

*A Shrapnel Shell* consists of a cast-iron body, with a chamber in the base ; it is weakened internally by 6 longitudinal grooves, forming lines of least resistance. The chamber contains a tin cup to hold the bursting charge ; over that is placed an iron disc or diaphragm pierced with a hole in the centre tapped with a thread ; into this is screwed a wrought-iron tube, over which is fitted a wooden cylinder. The inside of the body is lined with brown paper. It is filled with 234 (the 40pr. has 164) bullets hardened in antimony, and hot resin is poured in to fill up the interstices ; over this is fitted a wad of felt or kamptulicon. The head is of elm, and ogival in shape ; it has a hole in the centre, in which is fitted a gun metal fuze socket, the bottom of which is fitted into the wrought-iron pipe, and is tapped with a thread to receive the primer, which screws into it. The head is covered with a thin shell of Bessemer metal attached to the body by steel rivets and solder. The shell for the 64pr. gun has three rows of studs, three in a row ; is about 13 inches in length ; is painted black except the studs. The tip is painted red.

*Segment Shell* differ from common in having a lining of cast iron segments.

*Case Shot* are used with all guns. Are made up as a rule of one or more pieces of sheet iron, riveted together to form a cylinder ; the ends are fringed and turned in, to one of which the bottom is attached. Inside the bottom is placed a loose disc. Filled with iron sand shot packed in clay and sand. The top is an iron disc fitted with a handle. Case Shot from heavy guns would generally be used against boats or bodies of troops at from 600 to 1000 yards, which is its effective range.

*Gas Checks* are discs of copper slightly concave to the rear, having a thick rim and three projections to take the rifling in 64pr. guns. They are attached to the base of the shell by a hexagonal nut. Their use is to lessen the windage, by expanding on the firing of the gun, and thus prevent the bore being scored by a rush of gas around the shot.