A. C. HOBBS.

PRIMERS FOR CARTRIDGES.

No. 183,925. Patented Oct. 31, 1876.

Fig. 7. 

Fig. 8. 

Fig. 9. 

Fig. 1.

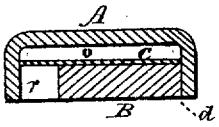


Fig. 2.

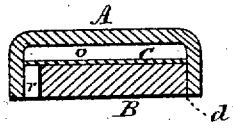


Fig. 3.

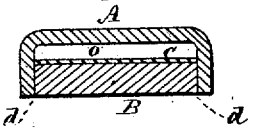


Fig. 4.

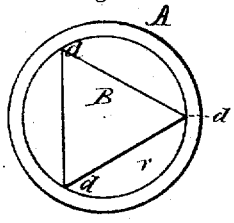


Fig. 5.

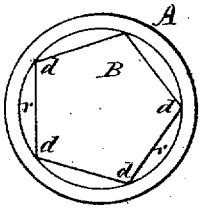
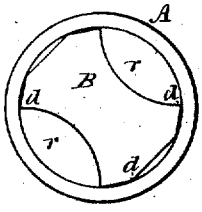


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALFRED CHARLES HOBBS, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN PRIMERS FOR CARTRIDGES.

Specification forming part of Letters Patent No. **183,925**, dated October 31, 1876; application filed February 28, 1876.

To all whom it may concern:

Be it known that I, ALFRED CHARLES HOBBS, of the city of Bridgeport, State of Connecticut, have invented a new and useful Improvement in Primers for Cartridges; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figures 1, 2, and 3 represent vertical section through the plans or top views, Figs. 4, 5, and 6; and Figs. 7, 8, and 9 represent features of several patents hereinafter referred to.

My invention relates to that class of primers adapted to central-fire shells for cartridges, in which the anvils upon which to explode the fulminate are inserted and retained in the primers.

The object of this invention, while it possesses all the advantages of the deep or oblong primers in common use, is to add the novel and important features of shallow or saucer-shaped cups having many-sided anvils placed therein, and retained in position by the corners or edges thereof, substantially as herein set forth.

A in the annexed drawing represents the shells or cups of shallow or saucer-shaped primers for receiving and holding the fulminate and anvils.

The anvils B consist of flat pieces of metal, having many edges or corners, *d*, and so formed as to leave spaces *r* for the passage of the flame of the fulminate to explode the charge of powder in the cartridge.

As in other primers, the fulminate *o* is placed in the bottoms of the cups A, and then covered with tin-foil, in the usual manner, to protect it, and, in a measure, to render it water-proof, with the anvils resting thereon.

It will be observed that the fulminate *o*, tin-foil C, and anvils B, placed flatwise, fill, or nearly fill, the shallow cups even with their surfaces, as represented in section in Figs. 4, 5, and 6; and the edges *d*, by which the anvils are retained in position within the cups, are formed by making the openings *r* for the passage of the flame of the fulminate; and, in pressing the anvils into position, the edges or corners *d* may cut slightly into the inner surface of the cups, thereby so embedding themselves as to remain firmly therein.

By the formation of the openings *r*, for the passage of the flame of the fulminate, and by which the edges or corners *d* are made, the center of the anvils is left unbroken, and present solid surfaces upon which to explode the fulminate.

I am aware that patents have been granted for anvils lying in the cups flatwise, as also upon edge, among which may be mentioned the French patent of Gevelot, dated March 5, 1855, formed with concentric surfaces bearing against the inner surfaces or peripheries of the cups, as represented by Fig. 7; also, the later patent granted by the United States to O. F. Winchester, dated July 14, 1874, as represented by Fig. 8, which is similar in configuration to Gevelot's, of 1855; also, the patent of D. W. C. Farrington, granted by the United States, in which the anvil is a disk, the periphery of which fits the inside of the cup with the openings to admit the passage of the flame of the fulminate, as represented by Fig. 9, all of which present concentric surfaces bearing against the inner peripheries of the cups, and are either retained in the cups by compressing or turning the edges thereof over or around the concentric rims of the anvils, or are forced so slightly into the cups, in order not to expand or enlarge them in diameter, that the anvils frequently drop out, thus destroying the primer altogether.

By the formation of the openings *r*, for the passage of the flame of the fulminate, and by which the edges or corners *d* are made, the centers of the anvils are left unbroken, and present solid surfaces upon which to explode the fulminate, and by the edges or corners so made are firmly and securely held within the cups.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

A primer for cartridges consisting of a shell or cup having an anvil placed flatwise therein, and retained in position by the edges or corners thereof, substantially in the manner herein set forth.

ALFRED CHARLES HOBBS.

Witnesses:
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