

(No Model.)

T. G. BENNETT.

PRIMER.

No. 294,566.

Patented Mar. 4, 1884.

Fig. 1.

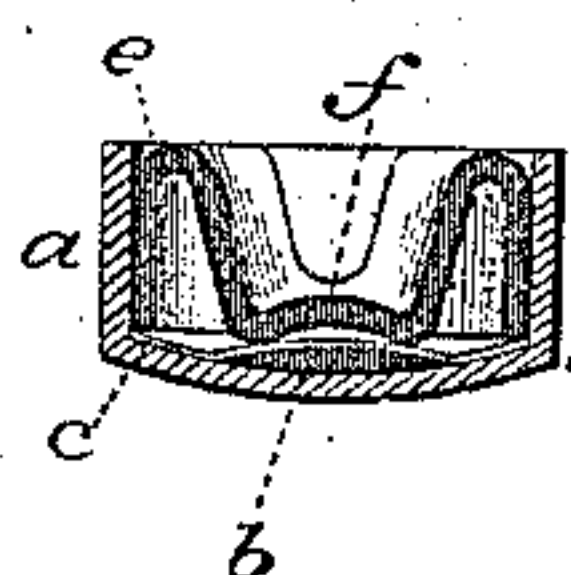


Fig. 2.

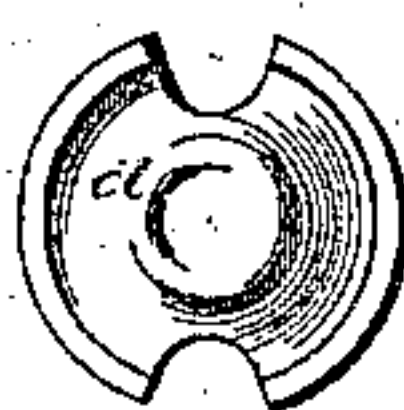


Fig. 3.



Fig. 4.



Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

THOMAS G. BENNETT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE
WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

PRIMER.

SPECIFICATION forming part of Letters Patent No. 294,566, dated March 4, 1884.

Application filed December 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS G. BENNETT, of New Haven, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Primers; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and
10 which said drawings constitute part of this specification, and represent, in—

Figure 1, a vertical central section of the primer complete; Fig. 2, a face view, and Fig. 3 a vertical section, of the anvil detached; Fig.
15 4, the usual construction of the anvil, whereby a central bearing or resisting-point is produced; Fig. 5, a modification.

This invention relates to an improvement in primers for cartridges for fire-arms, with special reference to the anvil placed within the
20 principal cup to resist the blow of the hammer upon the fulminate to cause explosion.

In the usual construction of the anvil, as seen in Fig. 4, the bearing-point which receives
25 the blow is conical—that is, a single central point. It not infrequently occurs that there will be a defect in the fulminate as placed in the cup, so that at the center there will be none. In that case, when the anvil is introduced, its central point comes substantially
30 against the metal of the cup, and, as the blow is in a central line, it strikes the cup at the point where it is in contact with the end of the anvil, and there being no fulminate at that
35 point, no explosion follows the blow.

To obviate this difficulty and insure an explosion is the object of my invention; and it consists in making the center or resisting part of the anvil concave upon its side toward the
40 fulminate, whereby such a considerable extent of bearing upon the fulminate is produced as to insure percussion upon some portion of the fulminate between the anvil and the bottom of the cup.

45 The principal cup *a* is of the usual form and construction. Into this the fulminate *b* is

placed in the usual manner, and upon the fulminate the usual thin disk of tin-foil or other film is applied.

D is the anvil. This anvil is constructed 50 with the usual side flange, *e*, to engage the inner surface of the cup. Its central portion is turned downward, also in the usual manner; but, instead of bringing it to a conical or central bearing-point, as in the usual construction, I make the central portion or bearing-
55 surface, *f*, concave upon the side next the fulminate, and so that a bearing is made upon the fulminate in the form of a concentric circle, upon which circle the force of the hammer 60 is brought to bear, and at some point at least on this circle there cannot fail to be some portion of the fulminate which is introduced into the principal cup. Explosion is therefore
65 sure to follow the blow, and the liability of non-explosion attending the use of anvils of common construction is avoided.

Instead of making the bearing end of the anvil concave, it may be made, as seen in Fig. 5, so as to form a concentric rib, it only being 70 essential to my invention that the anvil shall be constructed to produce a bearing-surface around the center.

I am aware that an anvil for primers has been constructed with an opening through its 75 center, and so that the open end will lie close upon the primer, the edge around the opening forming the resistance to the blow; but I do not claim, broadly, a primer constructed so as to present a bearing upon the fulminate 80 in a concentric circle.

I claim—

The herein described improvement in primers for cartridges, consisting of the anvil constructed for insertion into the cup, with its 85 center closed, and with a recess upon its inner surface at the center, substantially as described.

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Witnesses:

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LEE H. DANIELS.