(No Model.)

T. G. BENNETT.

PRIMER.

No. 294,957. Patented Mar. 11, 1884.

Fig. 1

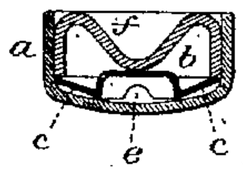

Fig. 2

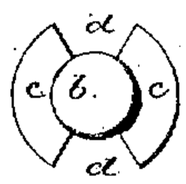

Fig. 3.

Fig. 4

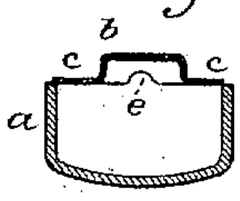

Fig. 5

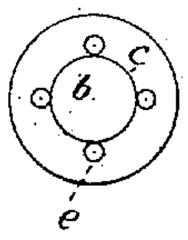

Fig. 6

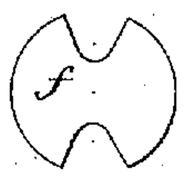

Fig. 7

Witnesses.
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Thomas G. Bennett
Inventor
By atty.
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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. 294,957, dated March 11, 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 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 which said drawings constitute part of this specification, and represent, in—

Figure 1, a vertical section through the complete primer; Fig. 2, a face view, and Fig. 3 an edge view of the auxiliary cup; Fig. 4, a vertical section, illustrating the method of introducing the auxiliary cup to the principal cup; Fig. 5, a face view of the auxiliary cup having its flange uncut; Fig. 6, a face and Fig. 7 a side view of the anvil, all the figures enlarged above full size.

This invention relates to an improvement in primers, with special reference to locating and holding the fulminate in its proper central position in the primer-cup by the employment of an auxiliary cup introduced within the principal cup, whereby the fulminate is first introduced into the auxiliary cup, and then that auxiliary cup with the fulminate placed in the principal cup, and whereby not only is the fulminate centrally located, but the loss arising from accidental explosion of the fulminate in the process of manufacture is to a great extent avoided. The loss referred to, it will be understood, arises from the defacing of the cup in which the accidental explosion occurs, and from which explosion adjacent cups will be more or less defaced, and if the introduction is being made into the principal cups, then those principal cups are lost because of the defect in their appearance; but if the fulminate be introduced into an auxiliary cup which is to be inclosed in the principal cup, such defacing does not injure or affect the principal cup, and the defacing of the auxiliary cup is no defect in the primer.

The object of the invention is to secure the auxiliary cup within the principal cup; and it consists in a cup of considerably smaller diameter than the interior of the principal cup, made from elastic sheet metal, with a concentric flange around its outer edge of slightly larger diameter than the internal diameter of the principal cup, and with one or more apertures through the auxiliary cup, said auxiliary cup containing the fulminate, and introduced into the principal cup open side down, and, forced into the cup, will cause the flange to turn upward or outward to contract its diameter to correspond to the internal diameter of the principal cup, and by such turning or contraction will engage the sides of the principal cup and serve to lock the auxiliary cup in its central position upon the bottom of the principal cup, as more fully hereinafter described.

The principal cup *a* is of the usual construction. The priming or auxiliary cup *b* is made from elastic sheet metal, preferably somewhat thinner than that of the principal cup, and in diameter and depth corresponding to the pellet of fulminate required to be located in the primer. Around the mouth of this cup is an annular flange, *c*, a little larger in diameter than the internal diameter of the principal cup. At two opposite points, *d d*, a segment of this flange is cut out, as seen in Fig. 2, and at those points a notch, *e*, is made in the side of the cup. The fulminate is introduced into this flanged cup in the usual manner of placing the fulminate in primers. The auxiliary cups, properly charged, are placed over the principal cups, as seen in Fig. 4, the mouth of the cup inward; then the auxiliary cup is forced into the principal cup, causing the flange *c* to turn outward or contract against the inner walls of the principal cup, and, thus contracted, the auxiliary cup is forced to the bottom of the principal cup, as seen in Fig. 1. The contracted flange engages the walls of the principal cup, and so as to stand in an inclined position toward the bottom of the principal cup, and act as a brace to hold the auxiliary cup in its position against the bottom of the principal cup, as seen in Fig. 1, and so that the auxiliary cup cannot be started from its position without considerable force being applied thereto. The apertures *e* permit the escape of the flame when the primer is struck.

While I prefer to cut notches *d d* in the flange to make its contraction easy, the flange may be left complete, as seen in Fig. 5.

In those primers in which an anvil is required the anvil *f* is constructed in the usual form, as seen in Figs. 6 and 7, and introduced within the principal cup to bring its center to bear upon the central auxiliary cup. By this construction not only is the fulminate centrally located, but the cup containing it is locked in place independent of the anvil.

I claim—

1. The herein-described primer, consisting in the combination of the principal cup *a*, the auxiliary cup *b*, of less diameter than the principal cup, containing the fulminate, and constructed with a flange, *c*, around its edge, of larger diameter than the internal diameter of the principal cup, and with one or more notches or openings, *e*, from the cup, the said auxiliary cup containing the fulminate introduced into the principal cup with its open mouth toward the bottom of the principal cup, and whereby said flange acts as a brace against the inner side of the principal cup, to hold the auxiliary cup in its central position upon the bottom of the principal cup, substantially as described.

2. The herein-described primer, consisting in the combination of the principal cup *a*, the auxiliary cup *b*, of less diameter than the principal cup, containing the fulminate, and constructed with a flange, *c*, around its edge, of larger diameter than the internal diameter of the principal cup, the flange cut or notched at one or more points, *d*, the said auxiliary cup containing the fulminate introduced into the principal cup with its open mouth toward the bottom of the principal cup, and whereby said flange acts as a brace against the inner side of the principal cup, to hold the auxiliary cup in its central position upon the bottom of the principal cup, substantially as described.

THOMAS G. BENNETT.

Witnesses:
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