(No Model.)

J. H. BARLOW.

BULLET MOLD.

No. 446,178. Patented Feb. 10, 1891.

Fig. 2.

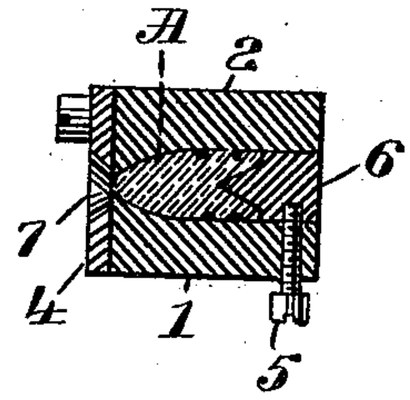


Fig. 1.

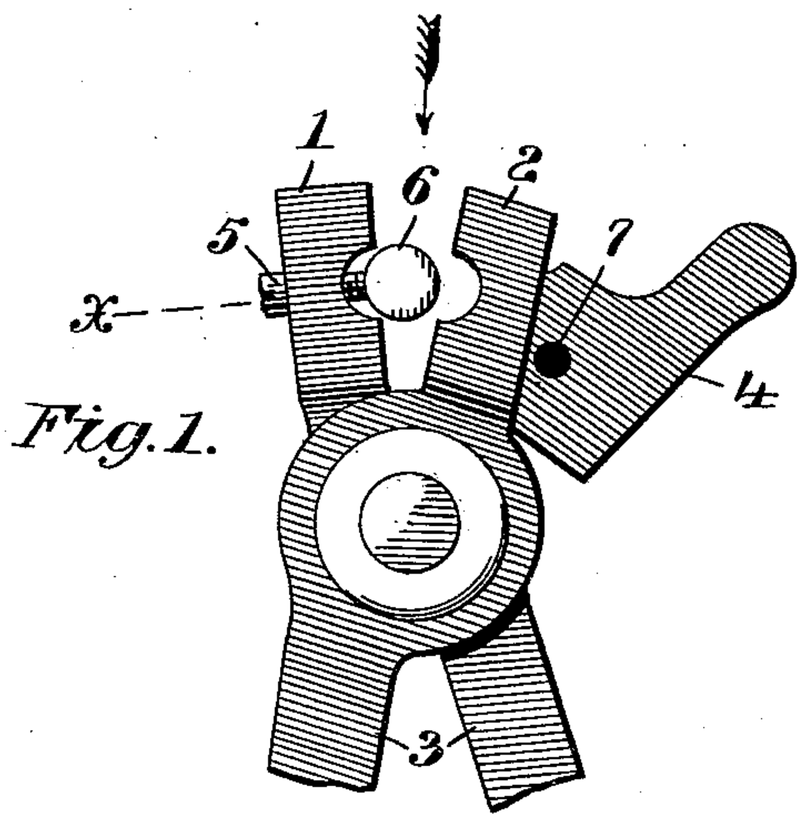


Fig. 3.

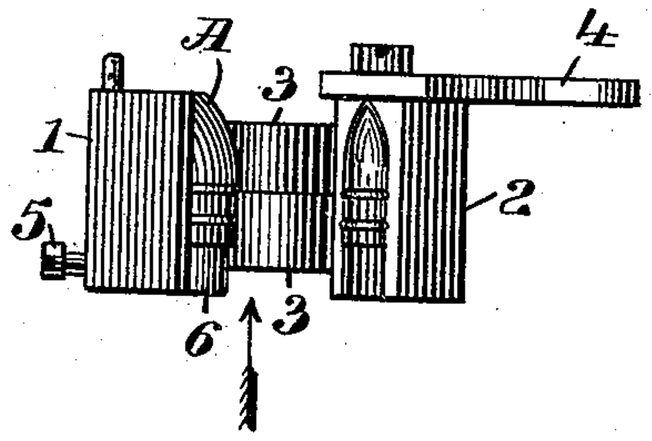


Fig. 4.

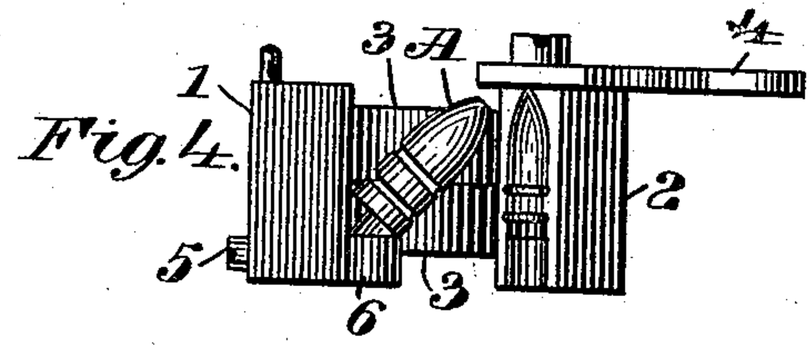


Fig. 5.

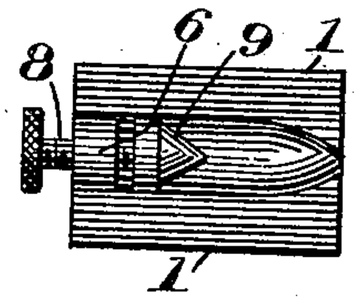
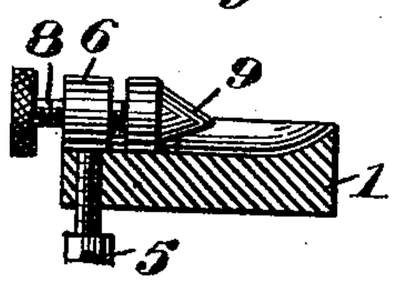


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN H. BARLOW, OF NEW HAVEN, CONNECTICUT.

BULLET-MOLD.

SPECIFICATION forming part of Letters Patent No. 446,178, dated February 10, 1891.

Application filed July 5, 1890. Serial No. 357,789. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BARLOW, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bullet-Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in molds for casting bullets, and has for its object to provide an attachment to facilitate the casting process, but particularly is it useful in making such bullets as are furnished with a deeply-recessed hollow base of conical or other form adapted to be upset by the discharge, and which are therefore, as will be readily understood, difficult to cast in an ordinary mold.

It is further an object of my invention to furnish an attachment to the mold which, while permitting bullets to be cast with the recessed base just described, will also permit bullets of different lengths, and consequently different weights, to be cast in the same mold; and with these ends in view my invention consists in the construction and combination of elements hereinafter fully explained, and then recited in the claims.

In order that those skilled in the art to which my invention appertains may fully understand its construction and operation, I will describe the same in detail, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view of a mold constructed in accordance with my invention, the parts being separated. This view is taken in the direction of the arrow at Fig. 3. Fig. 2 is a transverse section showing the mold closed and containing the bullet. This figure is a section at the line *x* of Fig. 1. Fig. 3 is an elevation showing the mold open, looking in the direction of the arrow, Fig. 1. Fig. 4 is a view similar to Fig. 3, showing the bullet in process of removal. Figs. 5 and 6 represent, respectively, a plan view and a section of one-half of a mold containing the second branch of my invention heretofore referred to.

Like numerals and letters denote the same parts in all the figures.

1 and 2 represent the complementary parts of a bullet-mold, having formed in their abutting faces the figure of the bullet to be cast. Suitable handles, such as 3, are secured to the parts 1 and 2 and are pivoted together, as is usual in bullet-molds. A swinging-in-gate plate 4 is pivoted upon the part 2 and is adapted to swing across the two parts when they are together for the purpose of filling and also of severing the sprue after casting. As seen at Fig. 2, the part 1 of the mold is pierced from the outside into the mold-cavity, and through this opening extends a headed screw or pin 5, bearing upon its extremity a plug 6, whose body fits the cross-section of the mold-cavity exactly, and whose upper extremity is so shaped or conformed as to make the base of the bullet of the shape required. The connection between the pin or screw 5 and the plug 6 is preferably a detachable one—as, for instance, a screw-threaded connection—so that the same mold may, if desired, be provided with two or more interchangeable plugs of different lengths. The pin or screw 5 is longer than the perforation through part 1 of the mold, and is adapted to have limited but free endwise play through said part when the mold is open, as appears from Fig. 1.

A is the bullet.

In the operation of my invention the two parts of the mold are closed together, whereby the bottom of the mold-cavity is closed by means of the plug 6. The fused metal is then introduced through the perforation 7 of the ingate-plate, which latter part is then swung upon its pivot for the purpose of severing the bullet from the sprue. The mold is then opened and the pin or screw 5 moved inward through the part 1 of the mold—as, for instance, by a blow—whereby the plug is carried to the position shown at Figs. 1 and 4, so that the bullet may be readily shaken off or otherwise removed from the top of the plug. The purpose of making this plug laterally movable is obvious, since if the conical upper end thereof were permanently affixed to the mold the removal of the bullet, especially if the latter be cannelured, as shown, would be by no means easy. At the same time the connection between the plug and mold which I have shown keeps the parts so connected that they may not be detached and lost, while at the

same time the product of the mold is equally as good as if the plug were made integral with one of the parts.

In Figs. 5 and 6 I show an attachment to the mold of the preceding figures whereby bullets of different lengths and weights may be made. This consists in making the plug cylindric and in passing axially through it a screw 8, having upon its end a conical or otherwise suitably-formed mold-plug 9. This construction is particularly designed for casting bullets whose forward extremities are tapered, but which are of uniform diameter for a considerable portion of their length. By means of this attachment the mold-plug 9 may be moved longitudinally to vary the capacity of the mold and thereby cause the product thereof to vary in length and weight.

In this invention I do not wish to be confined to the exact details of construction herein shown and described, since these may be freely varied without departing from the spirit of my invention, which primarily consists in the use of the plug having a permanent but loose connection with the mold.

I claim—

1. In a bullet-mold, the combination, with the complementary parts of the mold, of the plug connected to one of the parts, as described, and a supplemental plug secured to said first-named plug and adapted to move longitudinally within the mold-cavity, substantially as set forth.

2. In a bullet-mold, the combination, with the complementary parts and the base-plug, of the screw 8, threaded through said plug, and the plug 9, secured upon said screw and movable by means thereof longitudinally of the mold-cavity, substantially as described, whereby the capacity of said cavity is varied.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. BARLOW.

Witnesses:

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