June 17, 1930. M. G. McNEELY 1,763,977

BULLET MOLD

Filed April 22, 1929

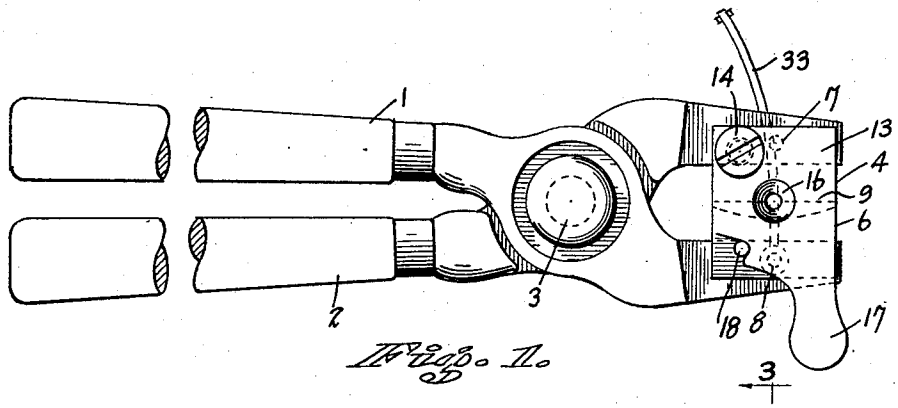


Fig. 1.

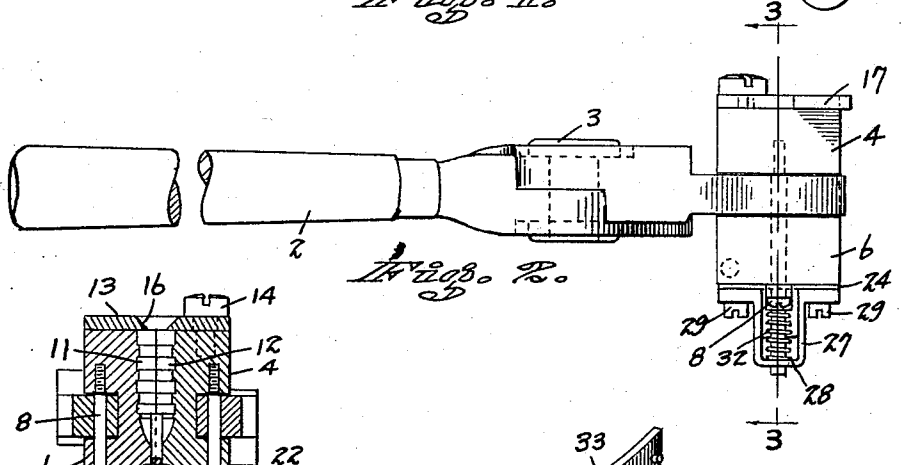


Fig. 2.

Fig. 3.

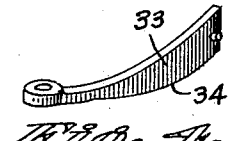


Fig. 4.

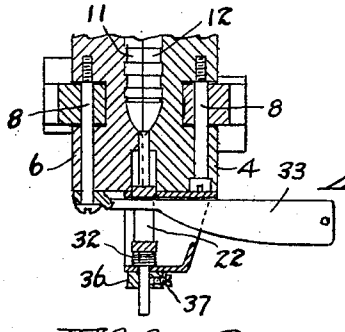


Fig. 6.

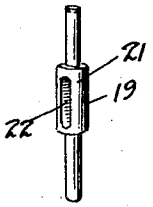


Fig. 5.

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BULLET MOLD

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The present invention relates to improvements in bullet molds and its principal object is to provide a bullet mold for casting hollow-point bullets. A further object of the invention is to provide a bullet mold in which either hollow-point bullets or solid-point bullets may be cast according to the wishes of the operator.

A further object of the invention is to provide means whereby the member responsible for the hollow point of the bullet is automatically withdrawn when the mold is opened, so that the bulletin will readily drop from the mold after being cast.

Further objects and advantages of my invention will appear as the specification proceeds.

The preferred form of my invention is illustrated in the acompanying drawing, in which

Figure 1 shows a plan view of my bullet mold;

Figure 2, a side elevation thereof;

Figure 3, a section taken along line 3—3 of Figure 2;

Figure 4, a perspective detail view of a cam used in connection with my bullet mold;

Figure 5, a perspective view of a pin used in connection with my bullet mold; and

Figure 6, a sectional view corresponding to that of Figure 3, showing the pin which forms the hollow point in a retracted position, whereby the same is rendered inoperative for casting a solid-point bullet.

While I have shown only the preferred form of the invention, I wish to have it understood that various changes or modifications may be made within the scope of the claims hereto attached without departing from the spirit of the invention

Referring to the drawings in detail, it will be seen that my mold comprises two handles 1 and 2 pivoted intermediate of their length, as shown at 3, in the fashion of a pair of pinchers, and two mold sections 4 and 6 pivoted to corresponding ends of the handles, as shown at 7 and 8, so that the two mold sections may be brought together to meet at an intermediate line 9.

The mold sections are formed with registering recesses 11 and 12, so as to provide a bullet cavity when the sections are in operative engagement.

The upper face of one of the mold sections has a plate 13 pivoted thereto, as shown at 14, which latter plate is formed with a tapered hole 16 registering with the bullet cavity when the plate is swung into operative position over the two mold sections by means of the handle 17, a stop 18 serving to limit the movement of the plate.

The structure thus far described is conventional, and in use, the lead out of which the bullet is to be made is poured through the tapered hole 16 into the bullet cavity, whereupon the two sections of the mold are separated by operation of the handles 1 and 2 which allows the formed bullet to drop from the cavity.

My invention resides in the addition to the structure thus far described of a means for forming a hollow point in the bullet. For this purpose, I use the pin 19, shown in detail in Figure 5, which is formed with an enlarged central section 21, having a slot 22 extending therethrough. One of the mold sections is provided at its bottom face with a superstructure, indicated at 23 and including a bearing plate 24 projecting over the center line of the mold, as shown at 26, and a U-shaped frame 27 presenting a base 28 in spaced relation to the bottom face of the mold section. Both the plate 24 and the frame 27 are held to the bottom face of the mold section by means of screws 29.

The pin 19 is guided by the plate 24 and the base of the U-shaped frame and is slidable in a bore 31 arranged in the two mold sections in axial alignment with the bullet cavity, a portion of the bore being dimensioned to accommodate the enlarged portion 19 of the pin and an inner portion of the bore being made to fit the reduced end of the pin. A spring 32 encircling the lower reduced portion of the pin 19 and bearing against the base 28 of the frame normally urges the pin inwardly into the position shown in Figure 3, which causes a portion of the pin to project axially into the bullet cavity.

The second mold section 6 has a cam 33

pivoted to the pin 8, the latter cam being formed in the manner shown in Figure 4 and comprising a blade curved to form an arc on the pivotal center of the two handles. This cam extends through the slot 22 in the pin 19 and is formed with a cam-shaped bottom edge shown at 34, which causes the pin to be withdrawn from its projected position when the mold is opened.

It will thus be seen that when the mold is closed and ready for pouring the metal through the tapered hole 16, the pin 19 projects into the bullet cavity under the influence of the spring 32, whereby a hollow-point bullet is formed. When the mold sections are separated for the removal of the bullet, the cam 33 riding in the slot 22 of the pin 19 causes the same to be withdrawn from the bullet cavity, so that when the mold is fully open, the bullet will drop out without being interfered with by the pin.

When it is desired to cast a solid-point bullet and to eliminate the feature of the pin, the same may be held in an inoperative position by means of a collar 36 fastened to the outer end of the pin by means of a set screw 37 after the pin has been withdrawn to its outermost position.

The inner end face of the pin 19 may be either made flat, as shown in Figure 3, for casting a flat-point solid-head bullet, or may be made concave, as shown in Figure 5, for casting a sharp-point solid-head bullet.

I claim:

1. A bullet mold comprising two mold sections forming a bullet cavity when in contacting engagement, means for moving the sections into and out of engagement, a pin, and means for projecting the pin into the cavity when the sections are moved toward one another and for withdrawing the pin from the cavity when the sections move away from one another.

2. A bullet mold comprising two mold sections forming a bullet cavity when in contacting engagement, means for moving the sections into and out of engagement, a pin slidable on one of the sections and having means associated therewith urging the same into the cavity, and a cam associated with the other section and engaging the pin for withdrawing the same from the cavity when the two sections are separted.

3. A bullet mold comprising two mold sections forming a bullet cavity when in contacting engagement, means for moving the sections into and out of engagement, a superstructure on one of the sections having a slotted pin slidable therein in axial alinement with the bullet cavity and having spring means urging the pin into the cavity and a cam fastened to the other section and sliding in the slot of the pin, the cam being formed to withdraw the pin from the cavity when the mold sections are separated.

4. A bullet mold comprising two mold sections forming a bullet cavity when in contacting engagement, means for moving the sections into and out of engagement, a pin, and means for projecting the pin into the cavity when the sections are moved toward one another and for withdrawing the pin from the cavity when the sections move away from one another in combination with means for holding the pin in an inactive position.

5. In a bullet mold of the character described, two handles pivoted intermediate of their lengths, two mold sections carried by corresponding ends of the handles whereby the mold may be opened and closed by operation of the handles, the mold sections being shaped to form a bullet cavity when the mold is closed, a pin and means associated therewith for driving the pin into the bullet cavity on the closing movement and for withdrawing the pin from the cavity on the opening movement.

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