

(No Model.)

2 Sheets—Sheet 1.

C. M. BURTON, H. R. ALLEN & J. MOORE.

BULLET CASTING MACHINE.

No. 261,582.

Patented July 25, 1882.

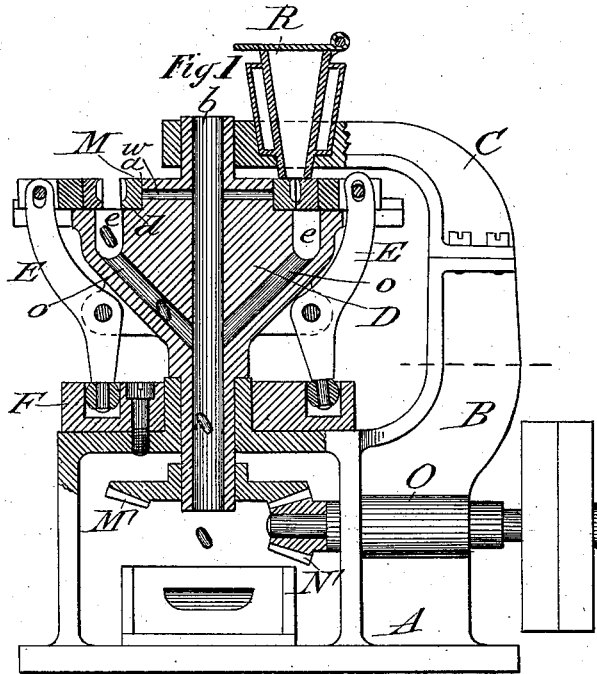


Fig. 2.

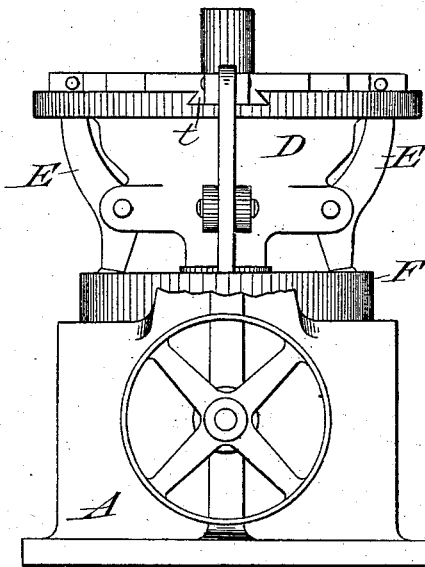


Fig. 3.

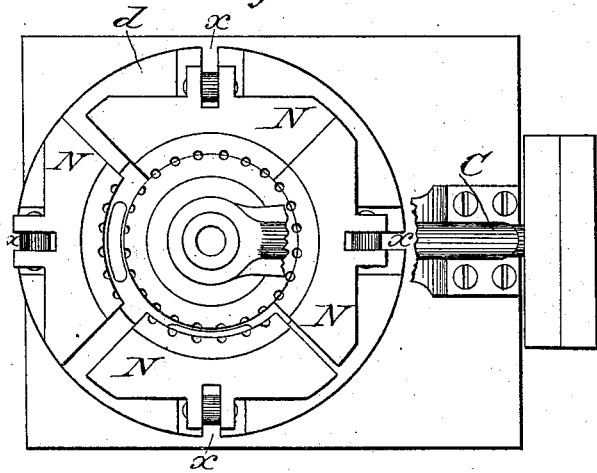
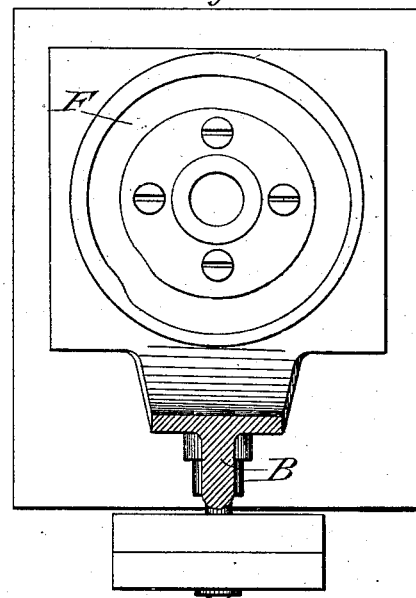


Fig. 4.



WITNESSES.

Isaac Curtis
Burton A. Everts

INVENTORS.

Hubert R. Allen.
John Moore
Charles M. Burton.

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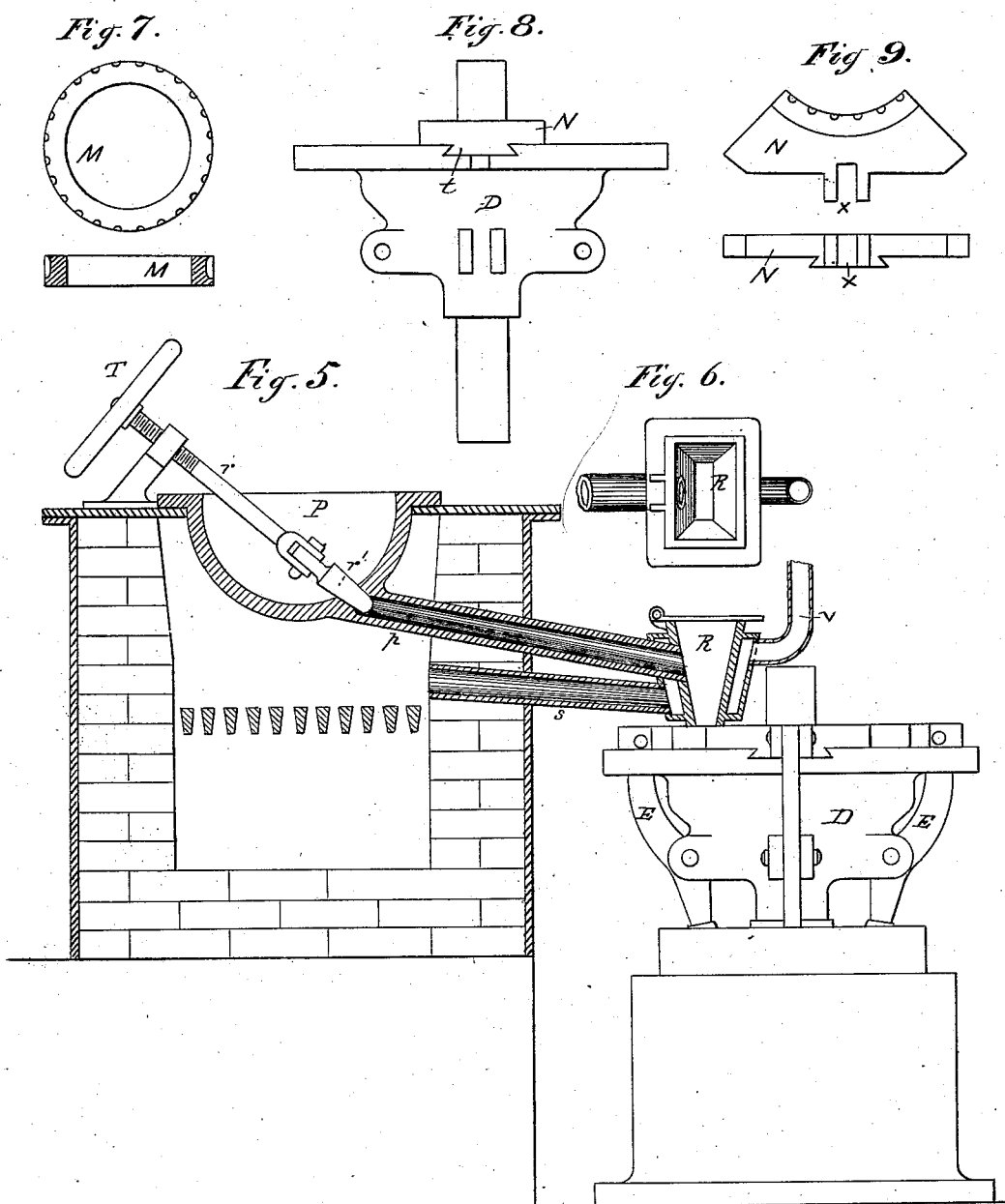
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UNITED STATES PATENT OFFICE.

CHARLES M. BURTON, HUBERT R. ALLEN, AND JOHN MOORE, OF NEW HAVEN,
CONNECTICUT.

BULLET-CASTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 261,582, dated July 25, 1882.

Application filed April 14, 1882. (No model.)

To all whom it may concern:

Be it known that we, CHARLES M. BURTON, HUBERT R. ALLEN, and JOHN MOORE, citizens 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 Machines for Casting Bullets, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a view of the machine partly in section. Fig. 2 is an end elevation. Fig. 3 is a plan view. Fig. 4 is a top view of the cam, with a cross-section of the upright portion of the frame. Fig. 5 is a sectional view of the melting-pot and of the devices connected therewith, including a view of the machine. Fig. 6 is a view of the funnel. Fig. 7 is a view of a ring in which parts of molds are made. Fig. 8 is a view of the central part, and Fig. 9 is a view of a section having parts of molds formed on its circular part.

These improvements relate to machines for casting bullets; and they consist in new parts and in new combinations of parts, as herein-after more fully set forth.

To enable others to make and use our improved machine, we will describe its several parts in detail and the operation of the machine.

A, Fig. 1, is the frame of the machine, which has a rectangular base and an upright part, B. To this upright part the part C is attached, which extends over the operative parts and furnishes a bearing for the same. The central revolving part or body of the machine, D, has a long journal on its lower end, which extends through the frame, and also a journal on its upper end, which turns in the part C of the frame. The shoulder *a* is formed on its upper part, on which the ring M, in which parts of the molds are made, is fitted. The circular flat part *d* forms a table or support on which the molds are placed. A circular groove, *e*, extending downward from the table, is formed in this central part, into which the bullets drop from the molds. The central part, D, has the central perforation, *b*, extending through it, and also four passages, *o*, which connect the

groove *e* with the central perforation, *b*. The upper parts of these passages are wider than the lower parts, and they gather and conduct the bullets to the central perforation. Small horizontal passages *w* extend from the shoulder *a* to the central perforation, to heat the ring M by means of hot air passing through the central perforation when required. The circular ring M is fitted onto the shoulder *a*, and on its outer edge parts of molds are formed, as shown in Figs. 3 and 7. The four like sections N, Figs. 3 and 9, have formed on their circular portions parts of molds which correspond, and in connection with the parts of molds on the ring M form molds for bullets. These sections move in dovetails *t* in the central part, D, as shown in Figs. 2 and 8. In their outer edges a slot, *x*, (shown in Figs. 2 and 9,) is made, in which the upper ends of the levers E are pivoted. The levers E are pivoted to the central part, D, and rollers are placed on their lower ends, which run in the cam F. (Shown in Figs. 1 and 4.)

To the journal on the lower end of the central part, D, the bevel-gear wheel M' is fastened, which meshes in the bevel-pinion N'. This pinion is fastened on the shaft O, on which a loose and a tight pulley are also arranged.

The melting-pot P, Fig. 5, is set in brick-work in the usual manner. A pipe, *p*, is inserted into the pot near its bottom and leads to the funnel R. A device consisting of the pulley T, rod *r*, and plunger *r'*, pivoted to the rod, regulates and stops the flow of the melted lead into the funnel. A pipe, *s*, leads from the furnace to the jacket surrounding the funnel and keeps the lead within the same in a melted condition. A pipe, *v*, also extends from the jacket upward, through which the heated air escapes. The funnel R, which is rectangular in form, with converging sides, is fastened to the upright portion of the frame A, and has its lower end in contact with the ring M and a section, N, as shown in Fig. 5.

The several parts of our improved machine being constructed and arranged as above described and as shown, its operation is as follows: As the central part, D, of the machine

revolves the molds are brought under the funnel, where they are closed and filled with melted metal. As they pass beyond the funnel the molds are opened and the bullets drop into the circular groove and find their way through the passages to the central perforation and pass out of the machine. This opening and closing of the molds is caused by the movement of the grooved cam F, which engages with the rollers on the ends of the levers.

Having described the several parts of our improved machine and its operation, what we claim as new, and desire to secure by Letters Patent, is—

1. The frame A, central part, D, ring M, sections N, levers E, cam F, bevel-gear wheel M', pinion N', and shaft O, carrying a tight and loose pulley, all the said parts constructed and combined, as shown and set forth.

2. The central part, D, made as described, in combination with the ring M, sections N, levers E, and cam F, as shown and set forth.

3. In a machine for casting bullets, the central part, D, having journals on its ends, and provided with the central perforation, *b*, circular groove *e*, and passages *o*, connecting the groove with the central perforation, as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES M. BURTON.
HUBERT R. ALLEN.
JOHN MOORE.

Witnesses:

GEORGE TERRY,
ISAAC CURTIS.