

F. A. HUBEL.

MACHINE FOR CUTTING OFF GELATINE CAPSULES.

No. 187,279.

Patented Feb. 13, 1877.

Fig. 1.

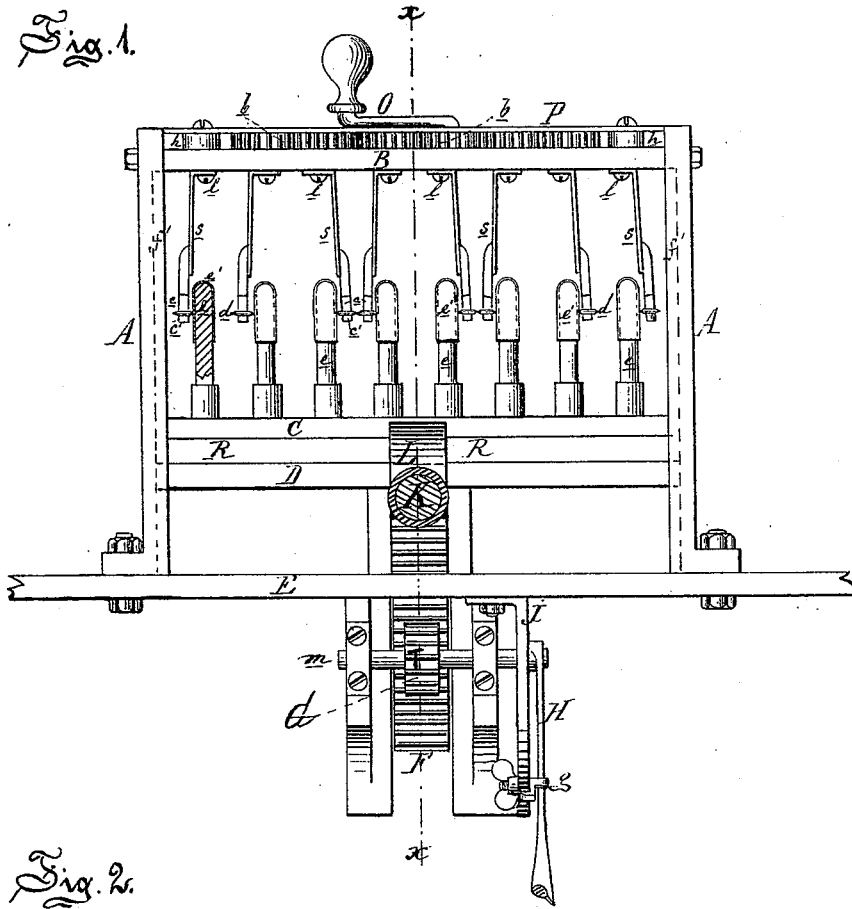
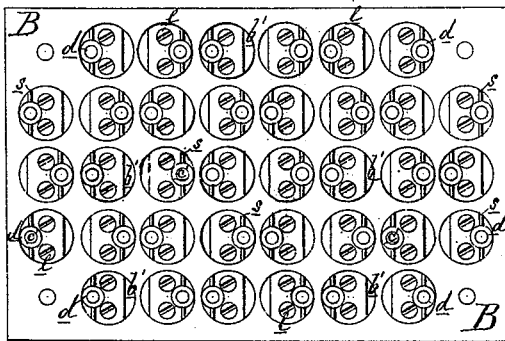


Fig. 2.



Attest:

James H. Pond
 William C. [unclear]

Inventor:

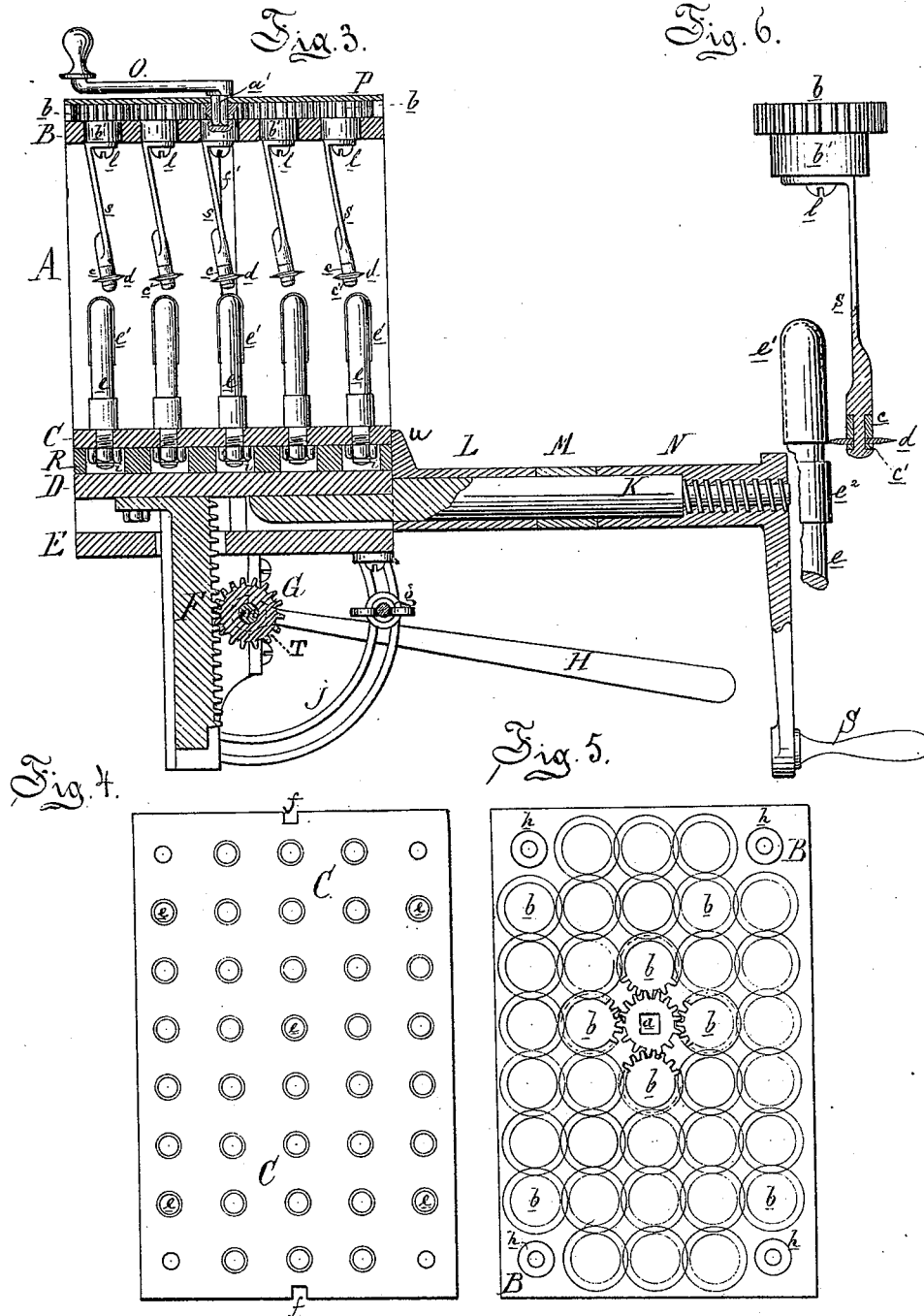
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Attest:
James H. Powell
 William C. Smith

Inventor:
Fredrick A. Hubel

UNITED STATES PATENT OFFICE.

FREDERICK A. HUBEL, OF DETROIT, MICHIGAN.

IMPROVEMENT IN MACHINES FOR CUTTING OFF GELATINE CAPSULES.

Specification forming part of Letters Patent No. 187,279, dated February 13, 1877; application filed April 17, 1876.

To all whom it may concern :

Be it known that I, FREDERICK A. HUBEL, of Detroit, in the county of Wayne, in the State of Michigan, have invented a new and useful machine for cutting off at a required and uniform length empty gelatine capsules, preparatory to their being removed from the molds upon which they are run; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, making a part of this specification.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 of the accompanying drawing is a front view of the machine. *d d* are circular knives. *s s* are springs pressing the knives against the molds *e e*. *l l* are screws holding the springs *s s* to the cog-wheels *b b*, as shown in Fig. 6. *O* is a crank, inserted into one of the cog-wheels. *D* is a platform, moved up and down by the slide *F*, cog-wheel *T*, and lever *H*. *L* is a projection from a tube, moving upon the cylinder *K*, with screw and crank, as shown in Fig. 3. *R C e e* is a set of molds placed upon the movable platform *D*, for cutting the coating of gelatine, *e' e'*.

Fig. 2 is a plane view of the upper plate, showing the knives in their position after the crank *O*, Fig. 1, has been turned one-half round.

Fig. 3 is a sectional view of the machine at the line *x x*, Fig. 1. This shows the position of the knives *d d* when the cut is about to be made. This figure shows the construction of a set of molds. *c* is an iron plate. *e e* are molds of steel, fastened into it by the nuts *i i*. *R* is a board, into which these nuts are "let in," and which is fastened to the plate *c*.

I will now give or explain the mode of operation: Let the projection *u* be turned down, so that the surface of the tube *L* is level with the platform *D*; place the set of molds *R C e e*, Fig. 3, upon the platform in a position that the

molds *e e* stand directly below the spaces between the knives *d d*; raise these molds to the required height up into these spaces by the lever *H*, (the arrangement *L K S* is fastened to the platform and rises and falls with it.) Turn up the projection *u* to the position in the figure. The crank *s* is now turned, pressing the molds *e e* against the knives *d d*, as shown in Fig. 6. The crank *O* is now turned, causing the knives *d d* to perform the cut, as shown in Fig. 6. When the cut is made the molds *e e* are again raised up by the lever *H*, and the part of the coating *e'*, Fig. 6, is shoved away from the upper part *e'*, Fig. 6.

Fig. 4 is a plane view of a set of molds.

Fig. 5 is a plane view of the upper plate of the machine, showing the cog-wheels in their position.

Fig. 6 is an enlarged view of one of the cutters and molds, and the shape of the capsule after it has been cut off, as has been described, as aforesaid, and separated from the part cut off and prepared to be removed from the mold.

I do not claim the molds upon which the capsules are run, and upon which they are during the operation of cutting them off, as described, as part of my invention; nor do I claim, as part of my invention, the composition of the gelatine in which the molds are dipped to form the capsule; but

What I claim as new, and desire to secure by Letters Patent, is—

The machine for cutting the capsule off at a required and uniform length after the mold is dipped into the gelatine, and while the capsule is still on the mold, and preparatory to its being removed therefrom, as hereinbefore described, and consisting of the circular knives, working in connection with the springs, screws, cog-wheels, crank, platform, slide, lever, and cylinder, as described herein.

FREDERICK A. HUBEL.

Witnesses:

JAMES H. POUND, Jr.,
WILLIAM SCOTT.