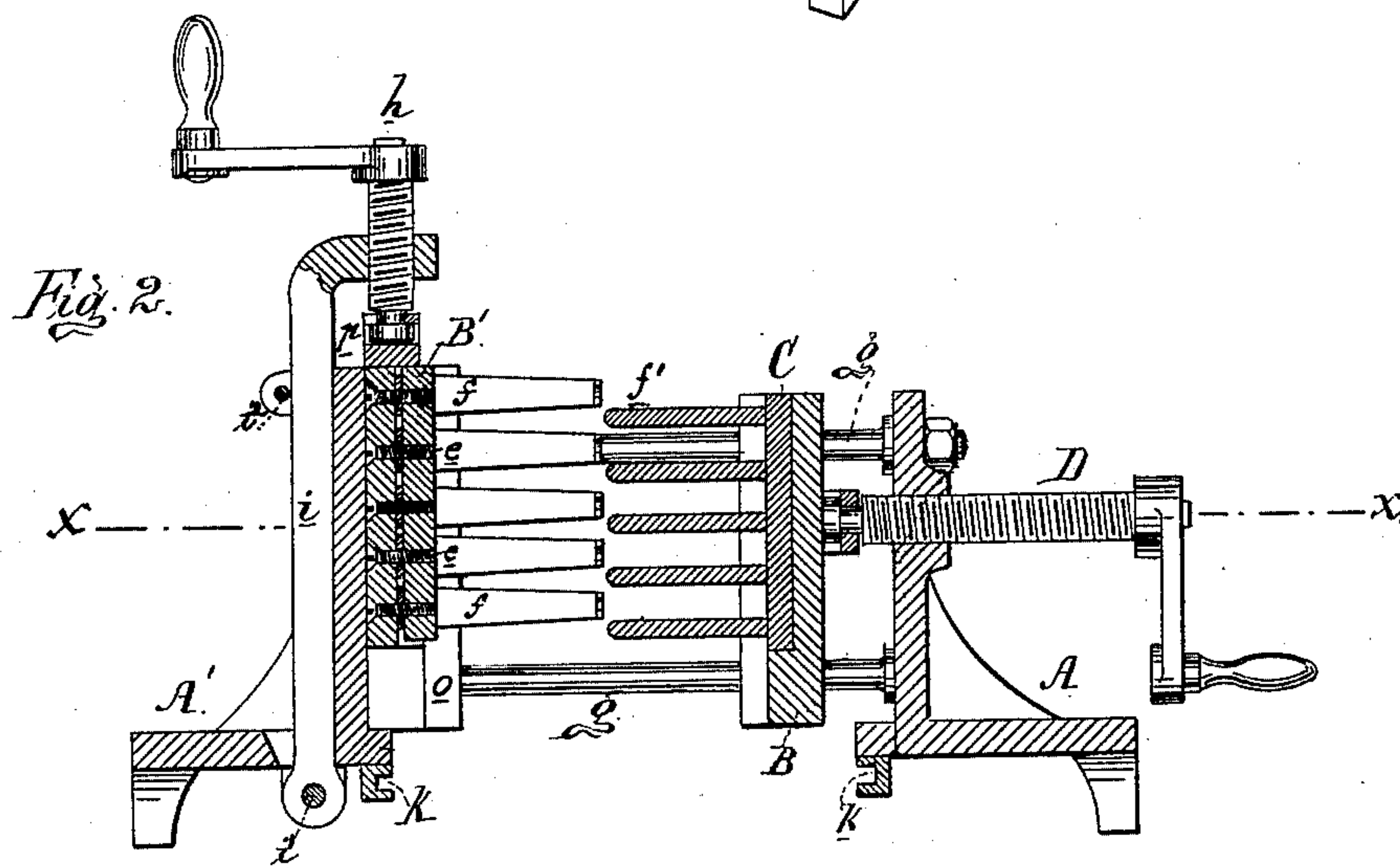
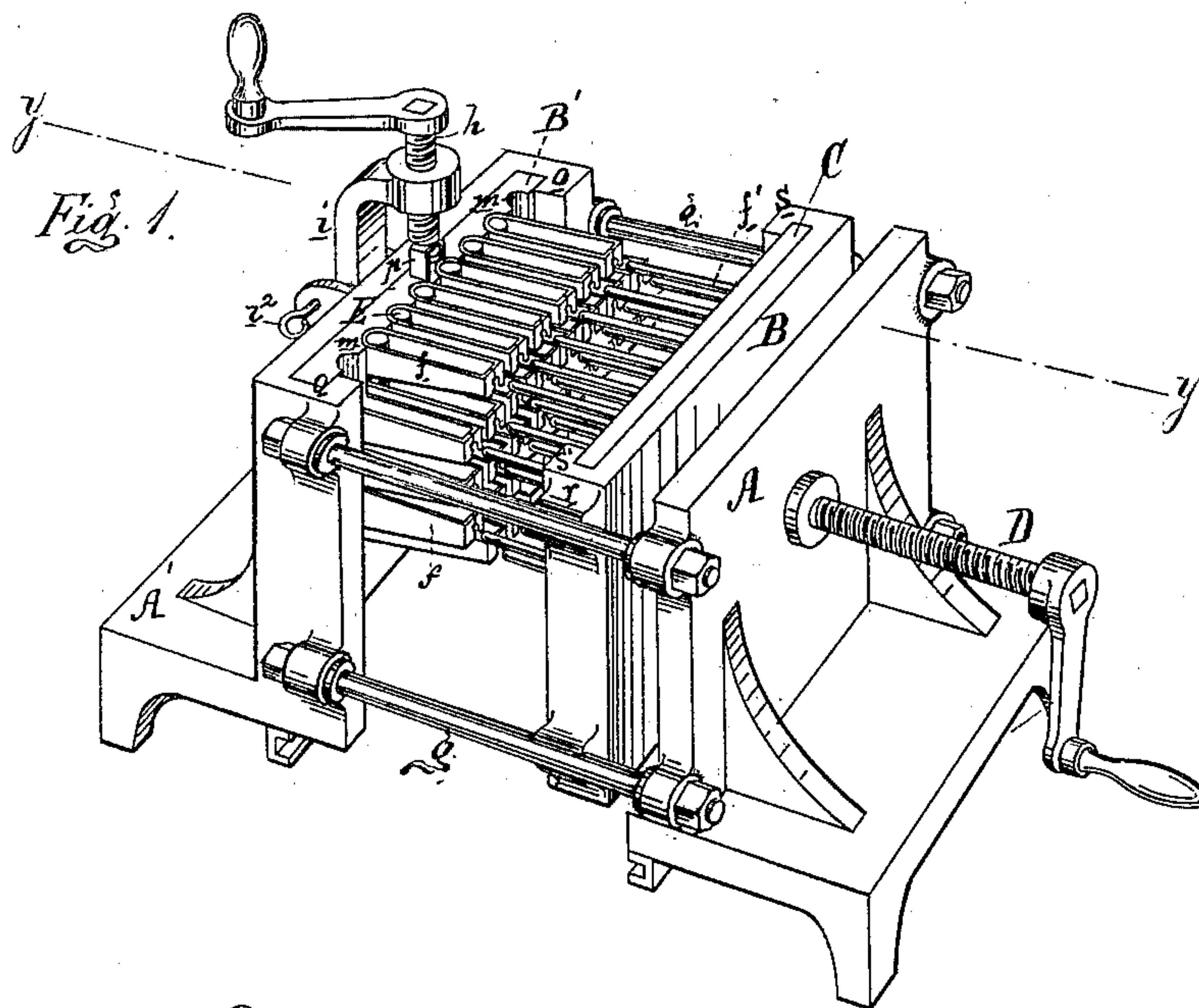


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Device for Removing Capsules from Molds.

No. 223,140.

Patented Dec. 30, 1879.



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Fig. 3.

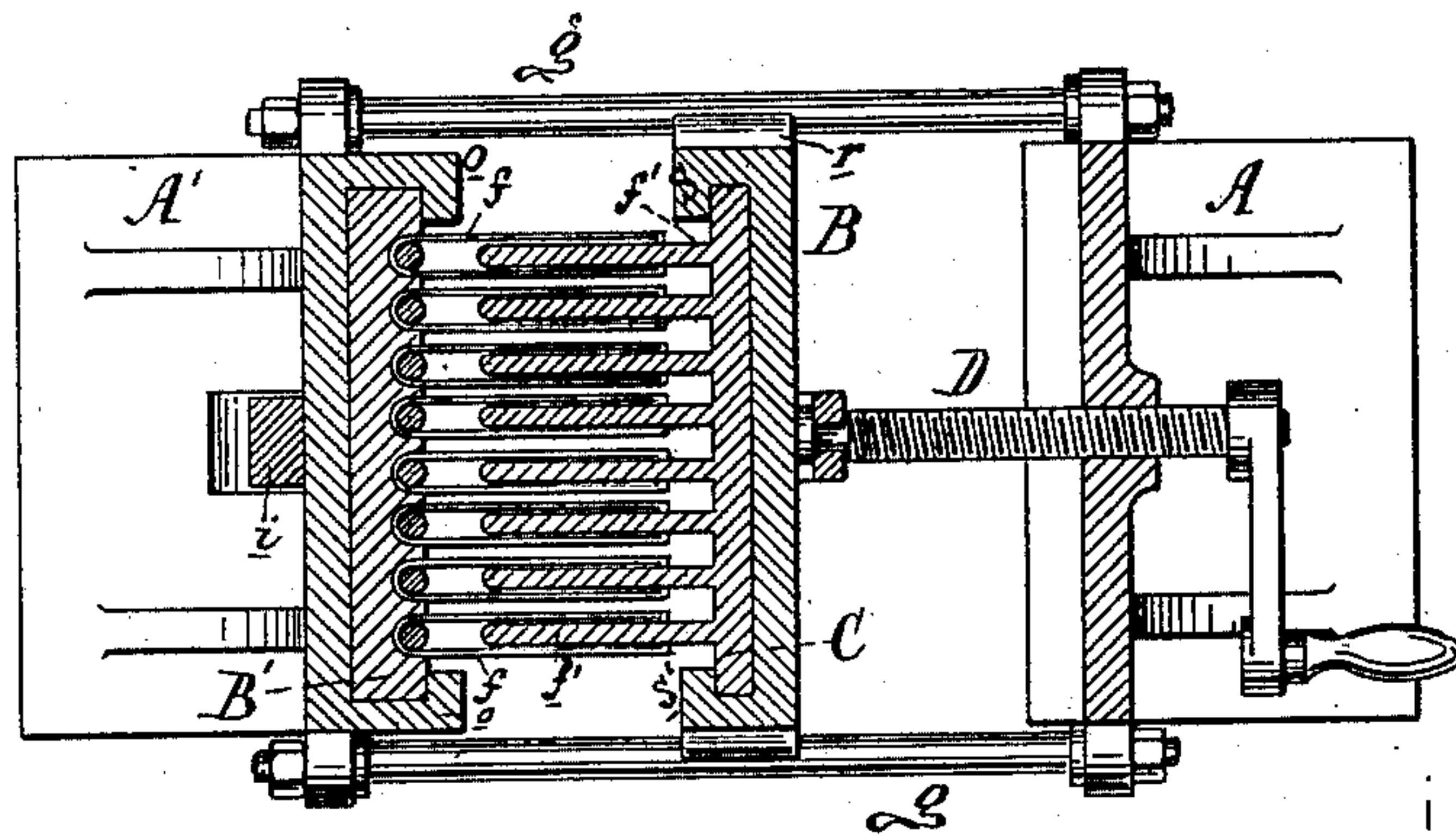


Fig. 4.

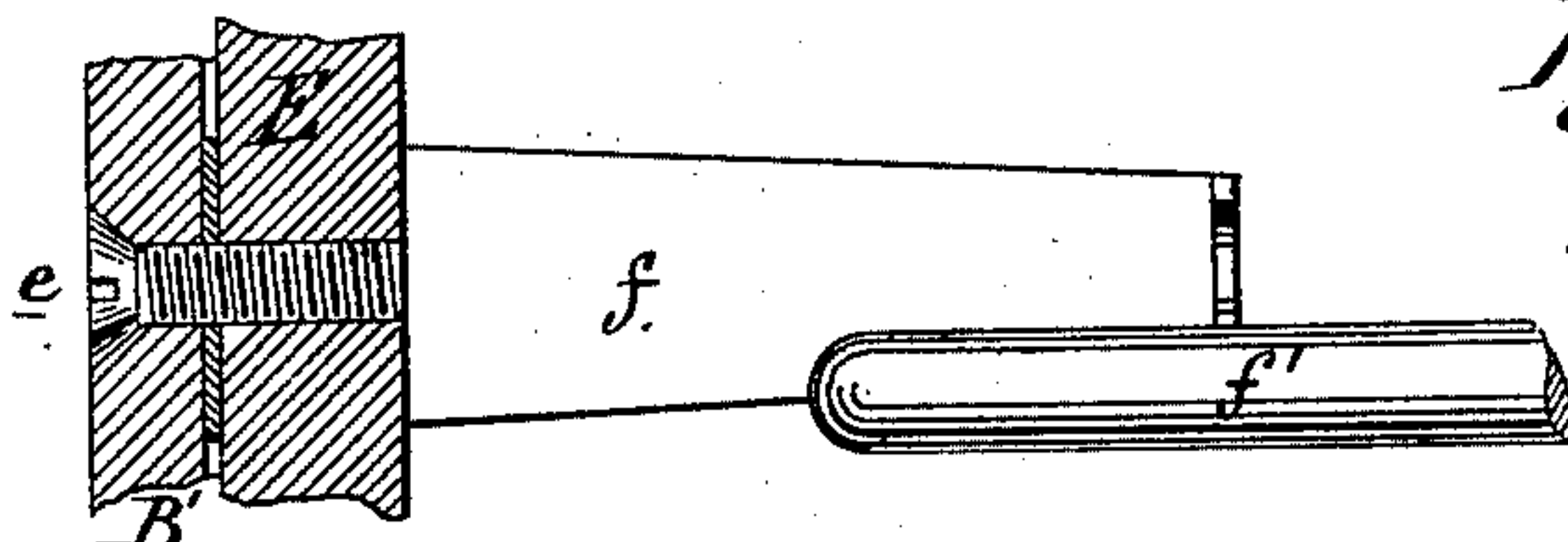


Fig. 7.

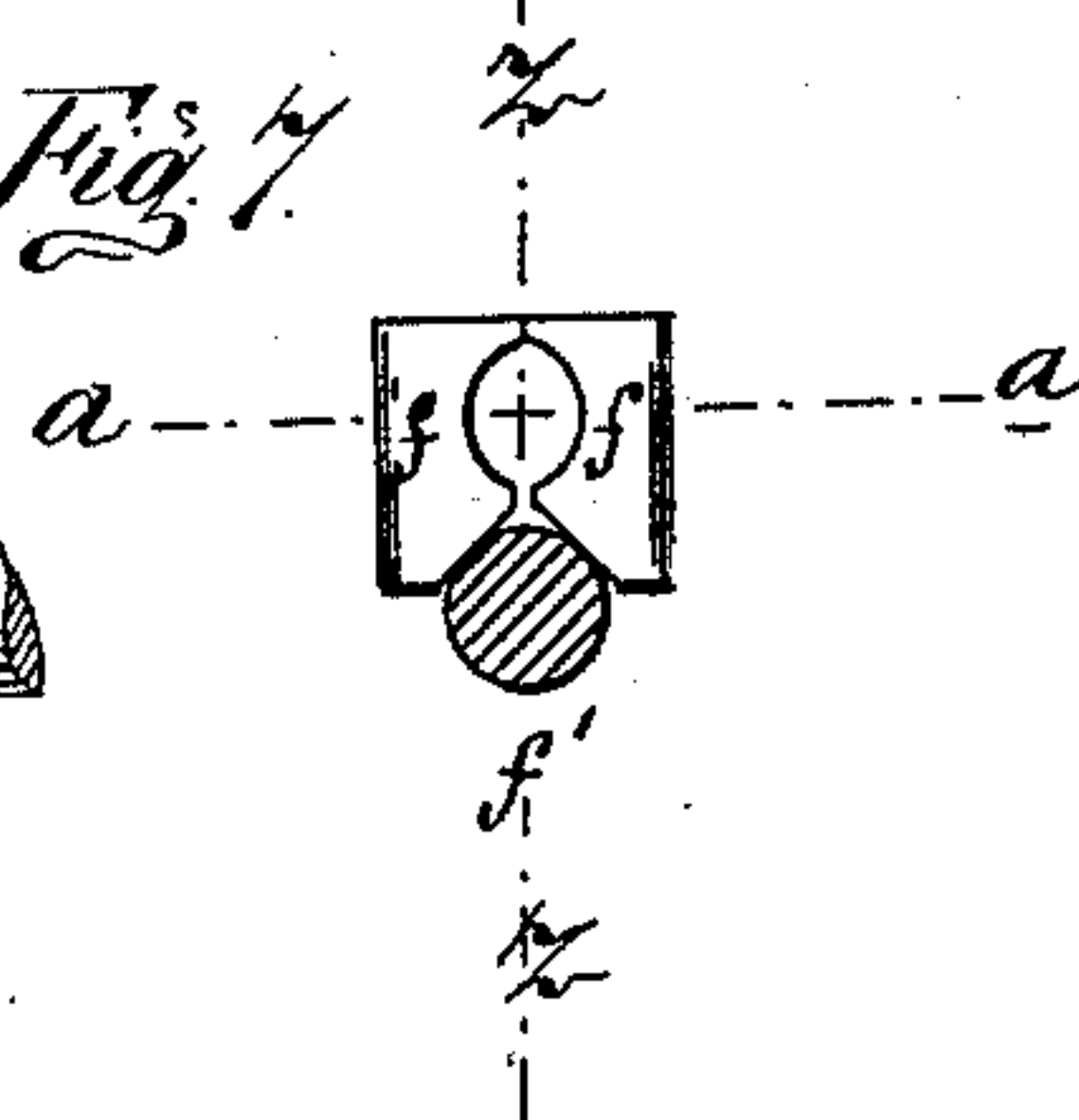


Fig. 5.

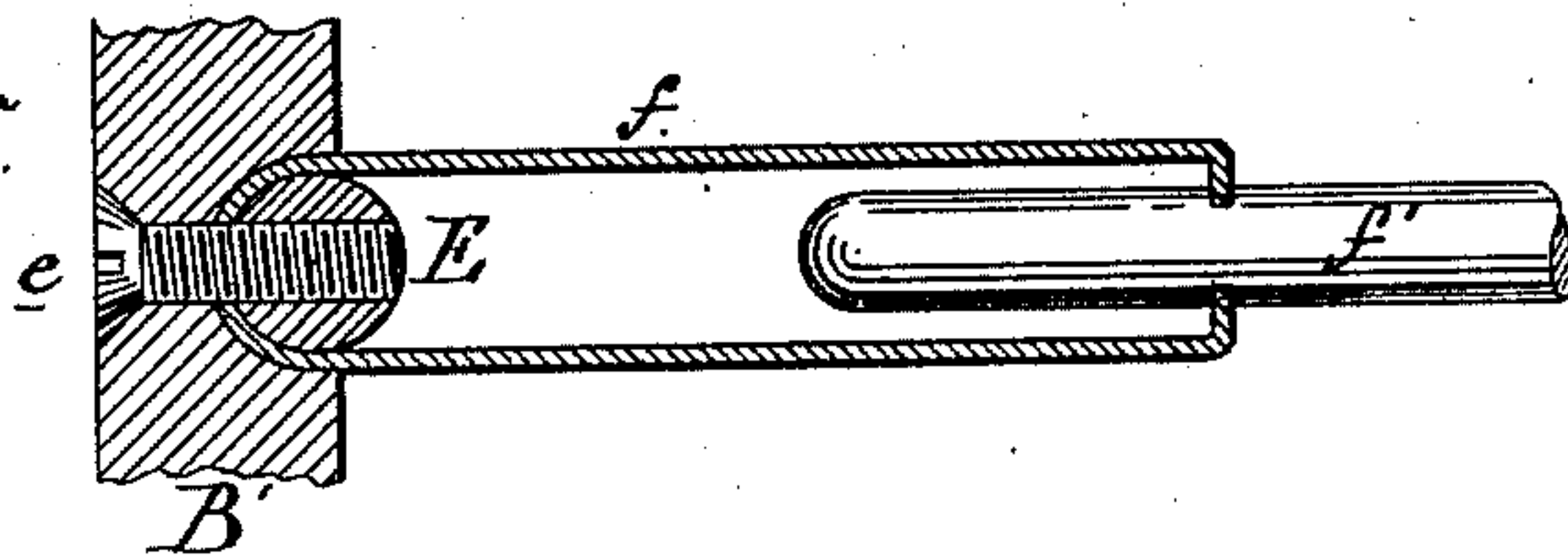
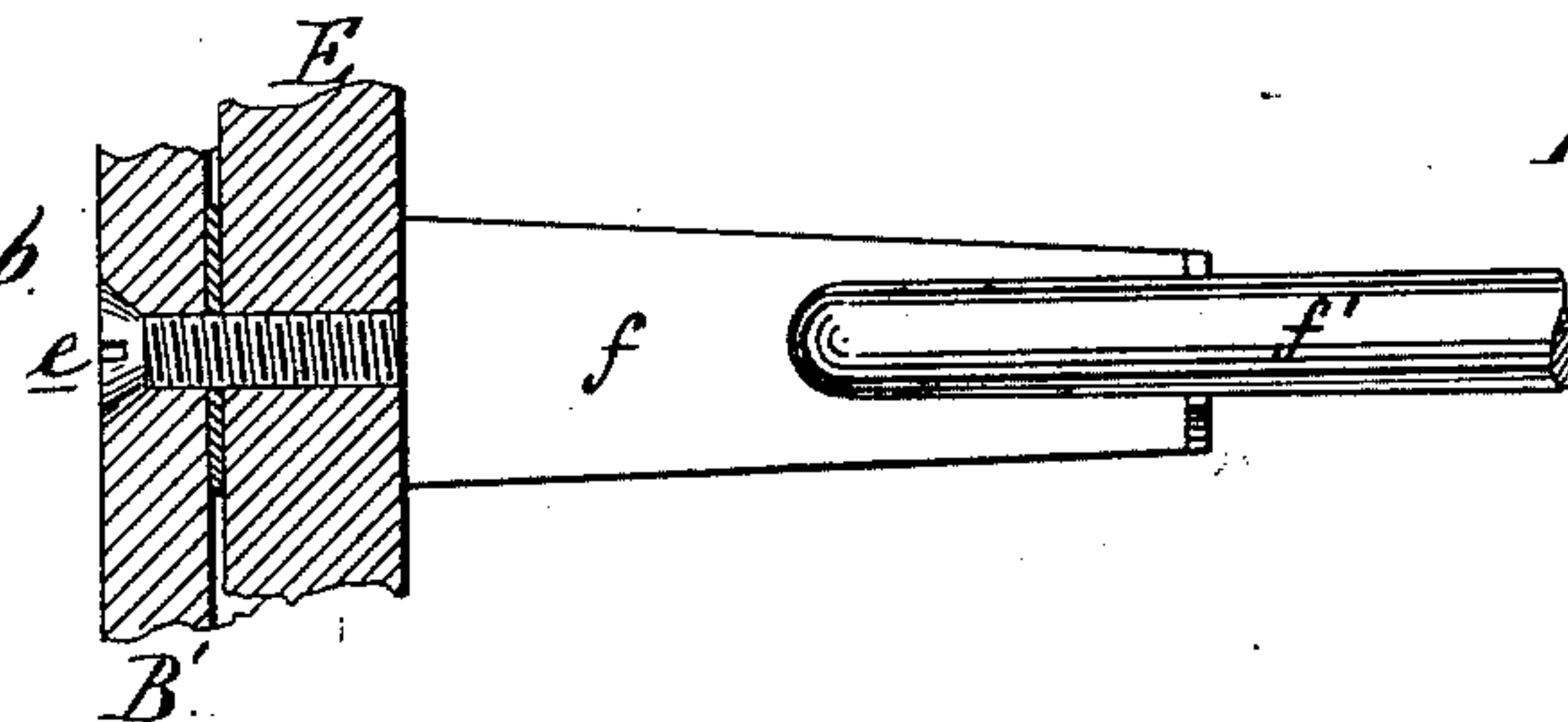


Fig. 8.



Fig. 6.



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# UNITED STATES PATENT OFFICE.

FREDERICK A. HUBEL, OF DETROIT, MICHIGAN.

## IMPROVEMENT IN DEVICES FOR REMOVING CAPSULES FROM MOLDS.

Specification forming part of Letters Patent No. **223,140**, dated December 30, 1879; application filed October 7, 1879.

*To all whom it may concern:*

Be it known that I, FREDERICK A. HUBEL, of Detroit, Wayne county, Michigan, have invented an Improved Device for Removing Capsules from Molds, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of a device for pulling gelatine capsules from the molds upon which they are framed; and the invention consists of the peculiar arrangement of spring clutch-bars, vertically adjustable in a suitable frame, which embrace the molds below the base of the capsules, and withdraw them as the molds are retracted, all as more fully hereinafter set forth.

In the drawings, Figure 1 is a perspective view. Fig. 2 is a vertical central section on the line *y y*, Fig. 1. Fig. 3 is a longitudinal section on the line *x x*, Fig. 2. Figs. 4, 5, 6, 7, and 8 are enlarged details of construction.

In the drawings, *A A'* represent suitable tables or frames, which are connected together by means of the rods *g*, which retain them in their relative positions.

The frame *A'* is provided with the inwardly-projecting vertical guides *o*, which receive the edges of the plate *B'*. In the front face of this plate *B'* are the semicircular recesses *m*, which receive the heels of the spring clutch-bars *f*, within which are placed the rods *E*, the whole being rigidly secured together by means of the screws *e*. Placed centrally on the outer side of the upright portion of the frame *A'* is a standard, *i*, which projects above and inwardly over such frame and over the plate *B'*. Through the overhanging end of this standard is tapped the threaded bolt *h*, the lower end of which has a swivel-connection with the slotted step-block *p*, secured to the upper edge of the plate *B'*, while the upper end of such screw-bolt is provided with a hand-crank.

The standard *i* is pivoted at its lower end on a shaft or bolt, *i'*, in the base of the frame *A'*, and is secured near its top against the upright portion of such frame by a removable pin, *i''*, passing through lugs projecting from the frame. By these means it will be seen that by removing the pin *i''* the standard *i* can be swung outwardly and the screw-bolt *h* disengaged from the step-block *p*, thus enabling the plate *B'* to be removed from the

frame *A'* for any purpose. Instead of supporting the standard *i* in this manner, it can be secured by bolts or screws directly to the upright portion of the frame *A'*.

*B* is a follower, which is supported by guide-lugs *r*, which slide upon the rods *g*. This follower is provided with inwardly-projecting shoulders *s s'*.

A threaded bolt, *D*, is tapped through the frame *A*, and has a swivel-connection with the rear face of the follower *B*, and carries upon its outer end a crank-handle, as shown.

In practice a plate, *C*, to one face of which are rigidly secured the molds *f'*, upon which the capsules are cast, is placed within the shoulders *s* and *s'*, and resting upon and in the shoulders. The follower is now advanced toward the clutch-bars *f* in such manner that the ends of the molds will pass below their coincident clutches, and sufficiently far so that the capsules will be within such bars. The plate *B'* is now depressed by means of the threaded bolt *h* and its crank-handle, such depression compelling the spring-clutched bars to separate at their points and firmly embrace the molds *F'* back of the base of the capsules, as is clearly shown in Figs. 5 and 8.

A retrograde movement of the threaded bolt *D* retracts or draws back the follower *B*, which compels the capsules to slide off the molds, from whence they drop into a drawer placed beneath the machine to receive them. This drawer may be supported by guides *k*.

As my invention is so simple in its construction and operation, a further description thereof is deemed unnecessary.

What I claim as my invention is—

1. In a machine for removing capsules from capsule-molds, a plate, *B'*, vertically adjustable in a frame, *A*, and carrying spring clutch-bars *f*, substantially as and for the purposes described.

2. In combination with a plate, *B'*, carrying spring clutch-bars *f*, a lateral sliding follower, *B*, which carries the capsule-bearing molds to said clutch-bars *f*, when constructed and arranged to operate substantially in the manner and for the purpose set forth.

FREDERICK A. HUBEL.

Witnesses:

H. S. SPRAGUE,  
A. BARTHEL.