

G. CARNELL.
Mold for Brick-Machines.

No. 225,107.

Patented Mar. 2, 1880.

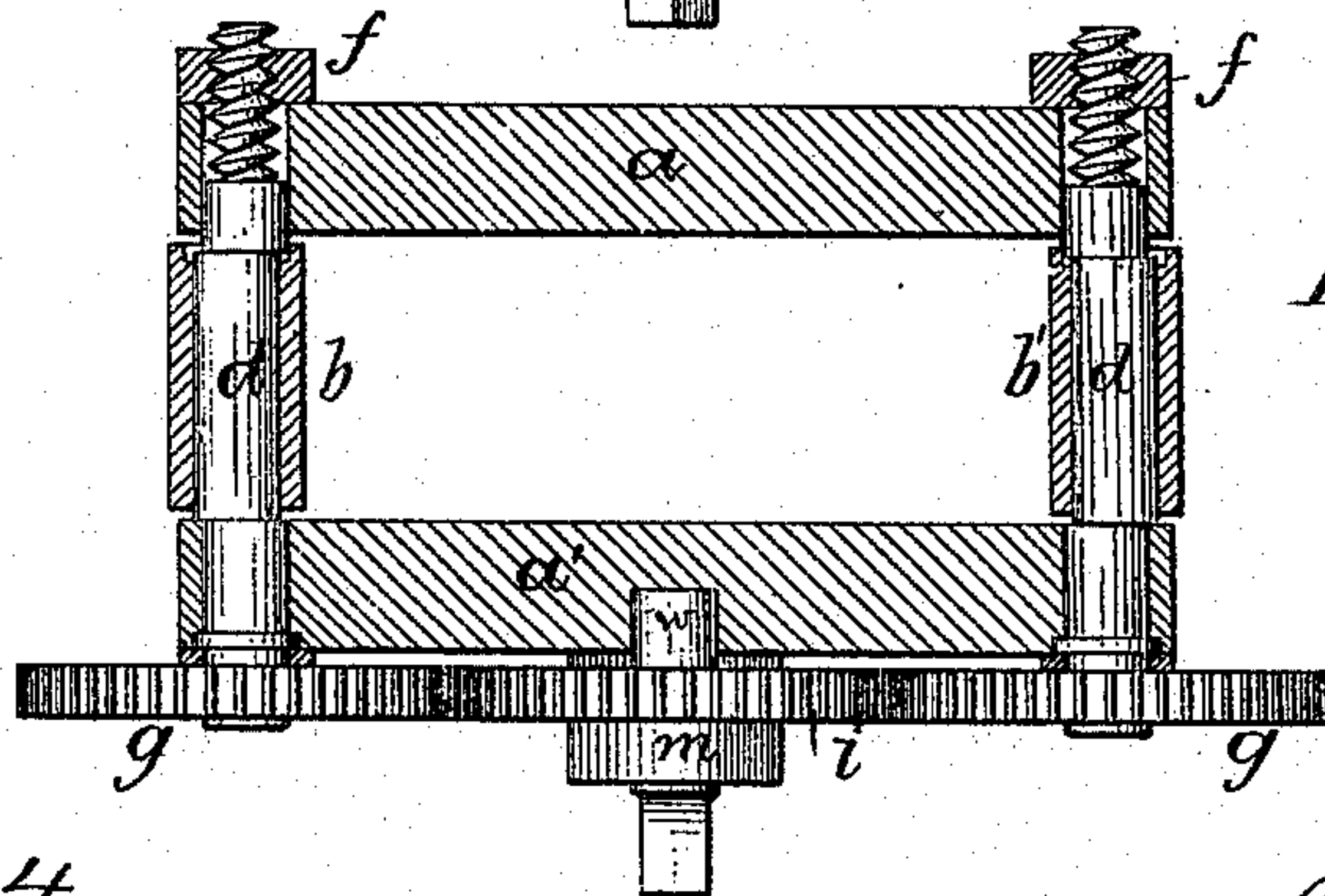
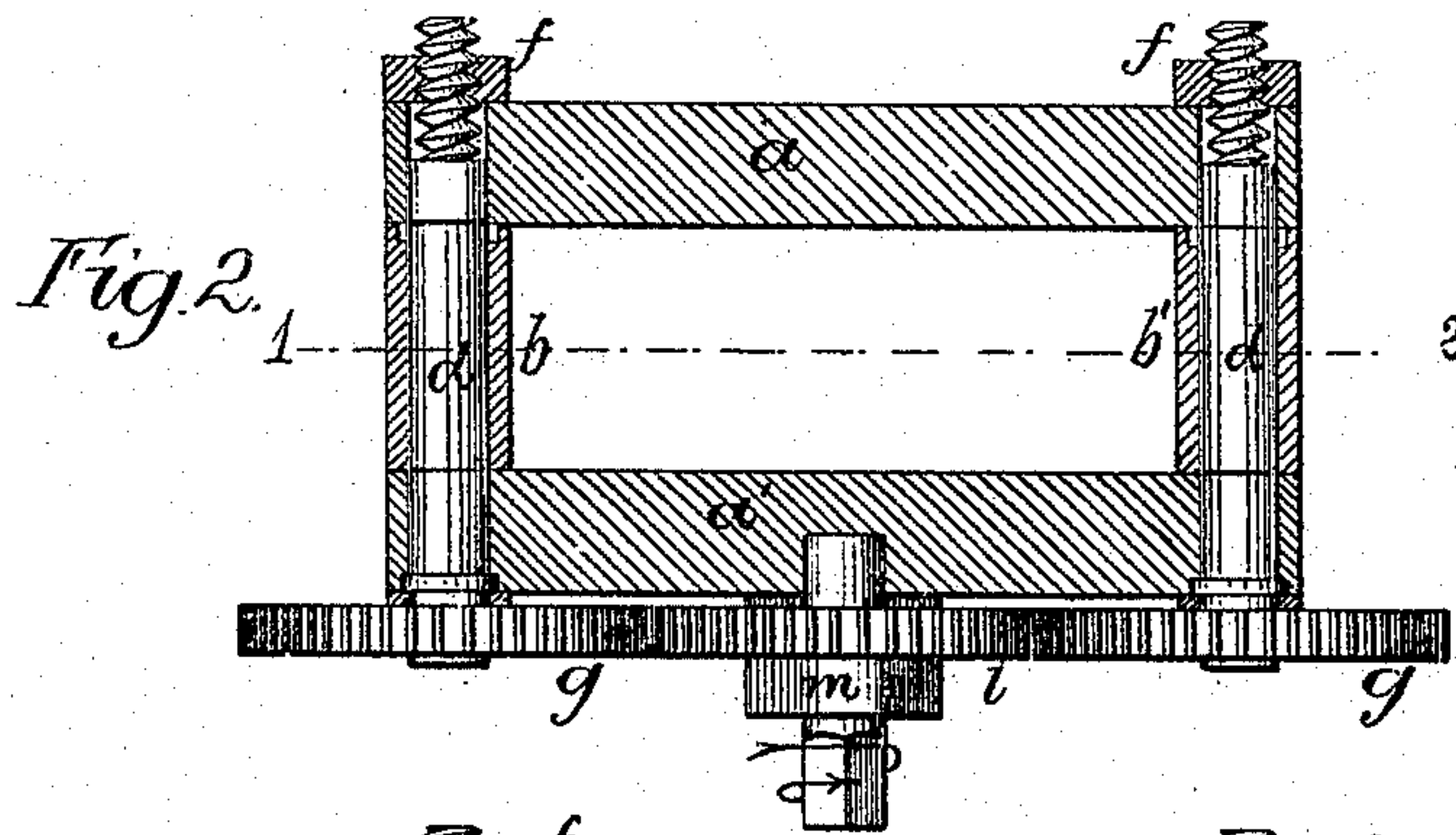
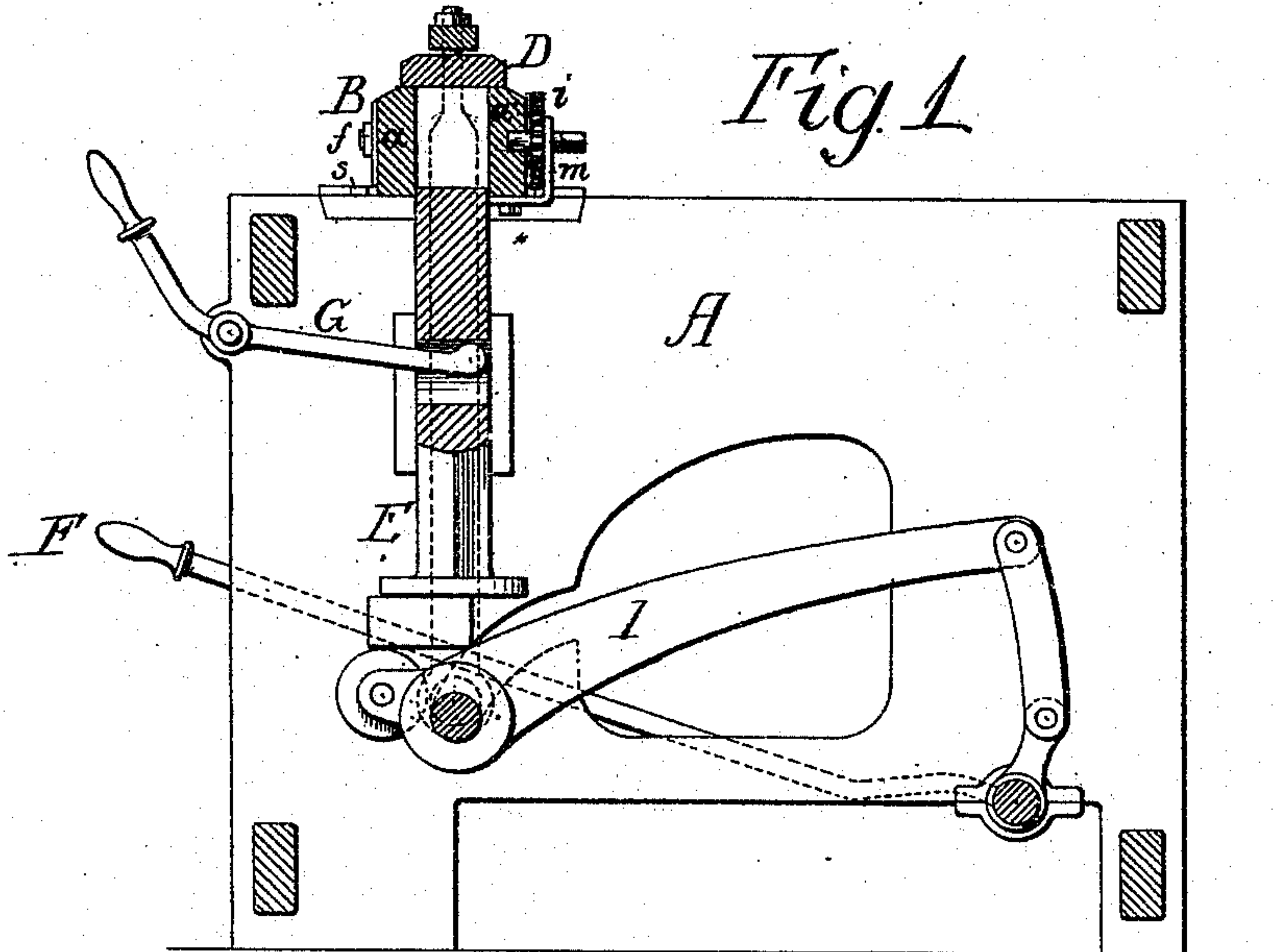
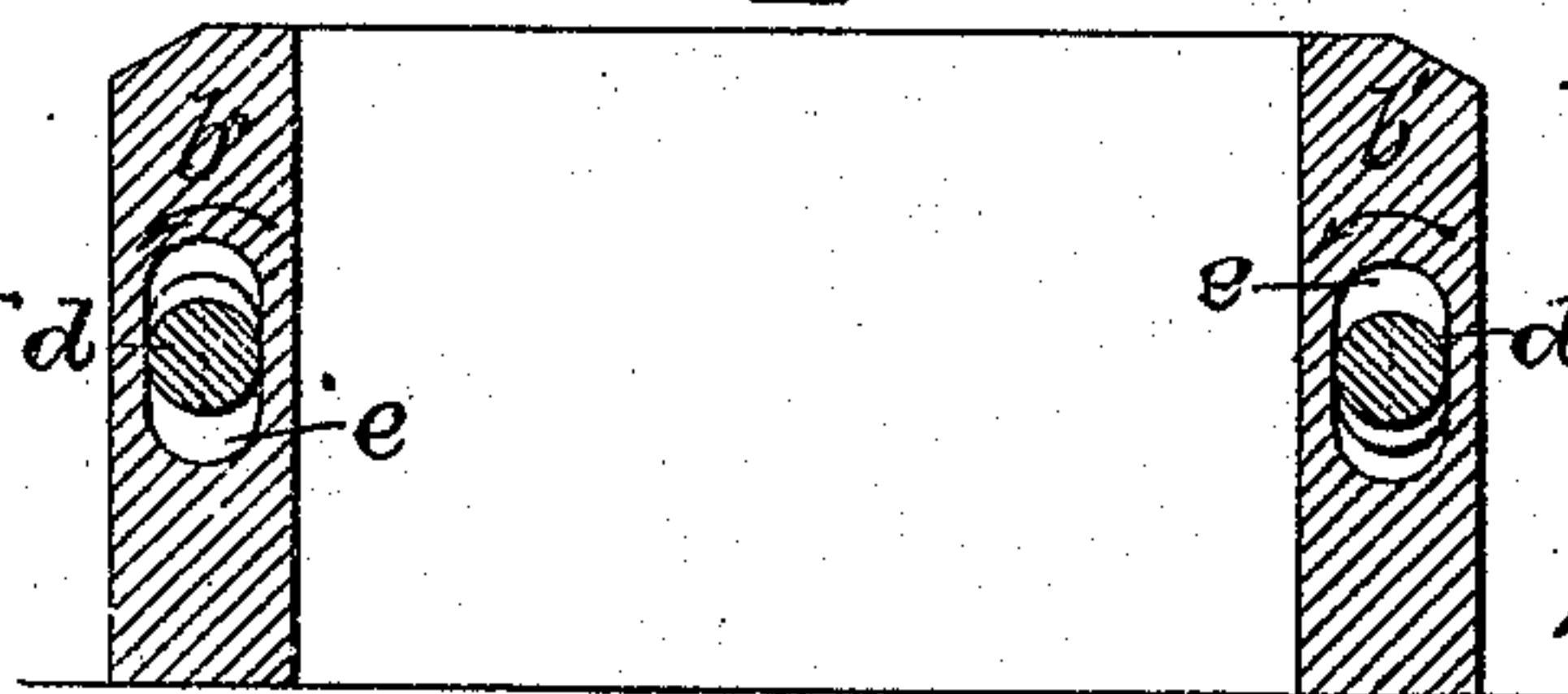


Fig. 4

Witnesses
Henry H. Brown
Harry Smith



Inventor
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by his Attorneys
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UNITED STATES PATENT OFFICE.

GEORGE CARNELL, OF PHILADELPHIA, PENNSYLVANIA.

MOLD FOR BRICK-MACHINES.

SPECIFICATION forming part of Letters Patent No. 225,107, dated March 2, 1880.

Application filed December 29, 1879.

To all whom it may concern:

Be it known that I, GEORGE CARNELL, of Philadelphia, Pennsylvania, have invented new and useful Improvements in Molds for Brick-Machines, of which the following is a specification.

My invention relates to improvements in molds for pressing bricks; and the main object of my improvements is to combine the movable plates of the mold with mechanism described hereinafter, so that positive movements of the said plates in expanding and contracting the mold may be assured, and the adhesion of the said plates to the molded brick prevented.

In the accompanying drawings, Figure 1 is a vertical section of a brick-machine with my improved mold; Figs. 2 and 3, sectional plans of the mold drawn to an enlarged scale; and Fig. 4, a vertical section on the line 12, Fig. 2.

In Fig. 1, A represents one of the side frames of the machine; B, the mold; D, the cap of the same; E, the guided plunger adapted to the mold; F, the lever for operating the said plunger so as to press the brick in the mold, and G the lever for elevating the plunger, and thereby discharging the pressed brick after the cap has been moved away from the top of the mold. These devices are common to repressing machines of the class to which my invention relates.

In Figs. 2, 3, and 4, *a a'* represent the opposite side plates, and *b b'*, the opposite end plates, of the mold, *d d* being the two threaded shafts, which, combined with the opposite side plates, *a a'*, constitute the mediums through which a positive outward and positive inward movement may be imparted to the said plates. These shafts should be so geared together as to operate simultaneously, the gearing consisting, in the present instance, of the two wheels *g g*, one on each shaft, and both gearing into a pinion, *i*, on a shaft which has one bearing in the plate *a* and the other in a bracket, *m*, secured to the said plate, the end of the shaft being squared or otherwise constructed to receive a suitable handle. Each of the shafts *g g* can turn freely in both of the plates *a a'*, but is confined longitudinally to the plate *a'*, the threaded end of each shaft being adapted to a nut, *f*, attached to the plate *a*.

After the brick has been pressed in the mold, and while the latter is in the condition shown in Fig. 2, the shaft *w* should be turned in the direction pointed out by the arrow, when the plate *a* will be moved outward and away from the brick until it is arrested by the stops *s* on the bed of the machine, which supports the mold, after which, the movement of the screw-shafts being continued, the plate *a'* will recede from the pressed brick and plunger.

It may be remarked here that it is not essential to adhere to the precise combination shown of the threaded shafts and their adaptation to the plates, for one shaft may have a left-handed screw-thread and the other a right-handed thread for controlling the plates, a wheel on one shaft gearing directly into a similar wheel on the other shaft, in which case the outward movement of the two plates, as well as their inward movement, will be simultaneous instead of in succession.

The shafts *d d* pass through vertically-elongated openings in the end plates, *b b'*, of the molds, the portions of the shafts within these openings being slightly cranked, so that when the shafts are turned in one direction the end plates will be simultaneously moved outward, and when turned in the opposite direction simultaneously moved inward, and the cranked portions of the shafts are so arranged that the longitudinal expansion of the mold will take place while the plates *a a'* are being moved outward.

It will be seen that both inward and outward movements of the plates are positive, no reliance being placed on springs or other uncertain appliances.

The end plates, *b b'*, may be fixed, in which case the cranking of the shafts *d d* will be unnecessary; but it is advisable in most cases that these plates should be movable.

I claim as my invention—

1. The combination, in a brick-mold, of side plates, *a a'*, with threaded shafts *d d*, adapted to the said plates and geared together, substantially as set forth.

2. The combination of the side plates, *a a'*, of the mold, the threaded shafts *d d*, and the wheels *g g* on the said shafts with the shaft *w* and its pinion *i*, geared to the said wheels, all substantially as described.

3. The plate *a'* of the mold, the threaded
shafts *d d*, arranged to turn but confined longi-
tudinally in the said plate, the plate *a* having
nuts adapted to the threaded portions of the
5 shaft, in combination with the stop *s* on the
frame of the machine, all substantially as set
forth.

4. The combination of the side plates, *a a'*,
of the mold and threaded and cranked shafts
10 *d d*, for actuating the same, with the end plates,

b b', adapted to the cranked portions of the
shafts, all substantially as specified.

In testimony whereof I have signed my name
to this specification in the presence of two sub-
scribing witnesses.

GEORGE CARNELL.

Witnesses:

ALEXANDER PATTERSON,
HARRY SMITH.