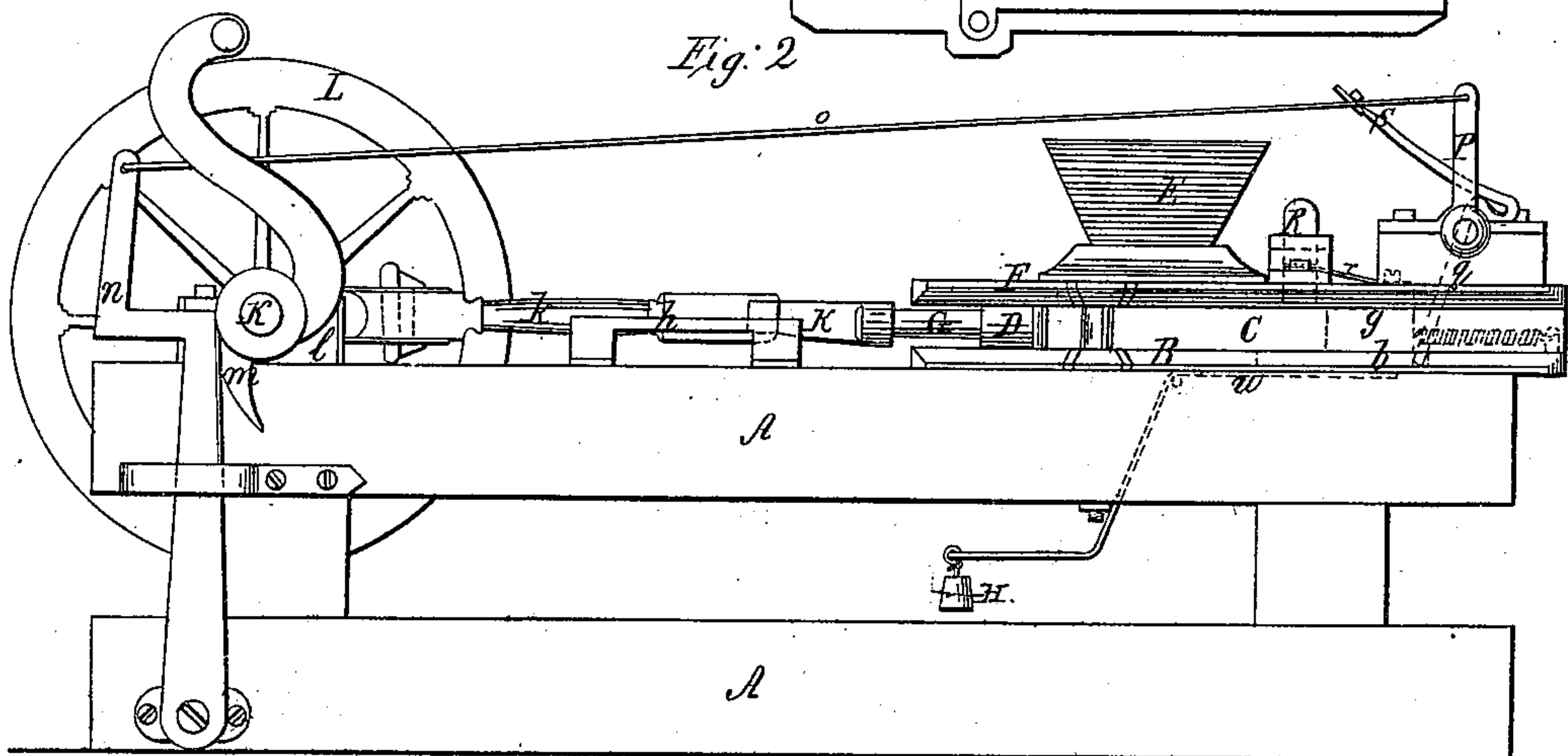
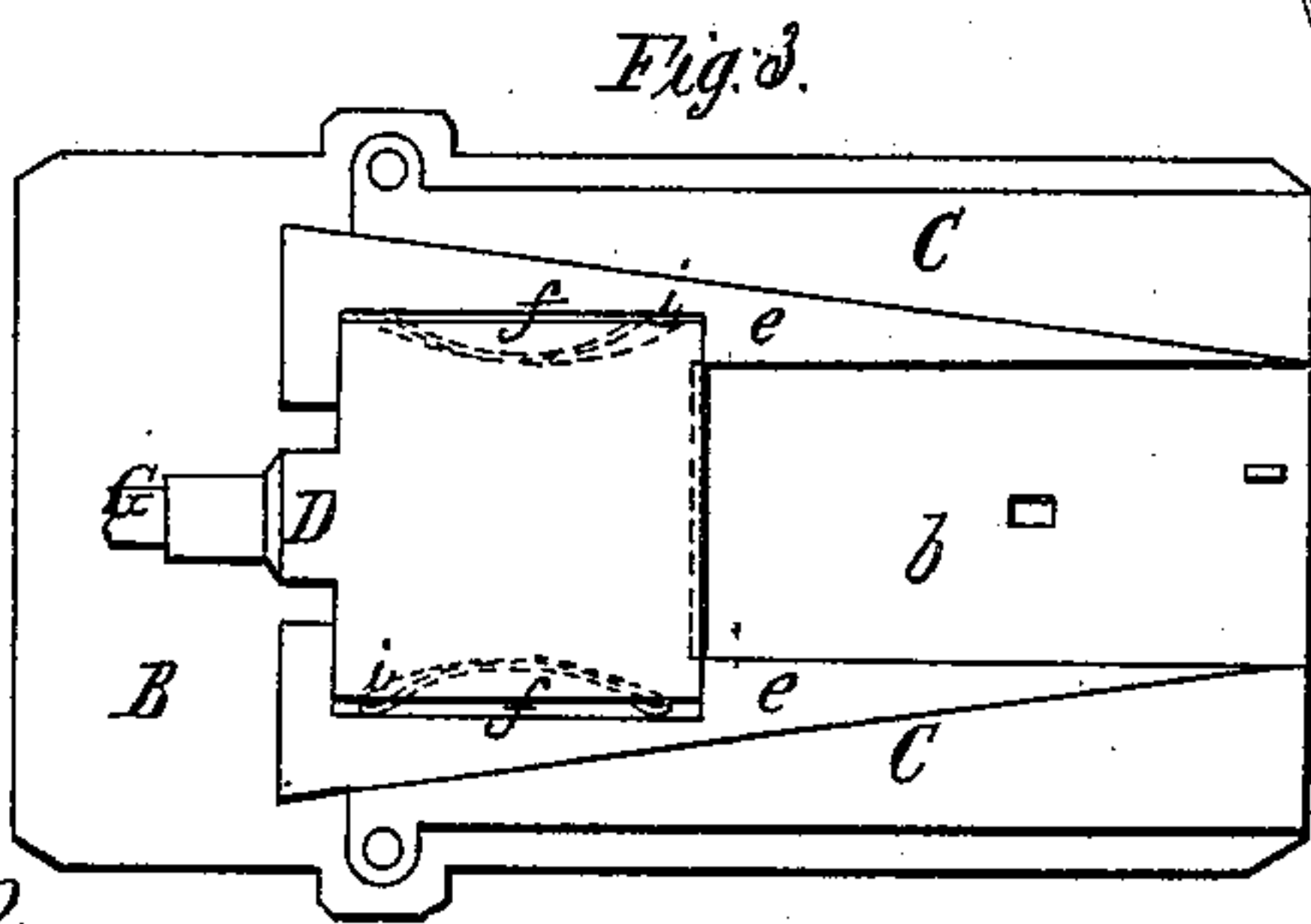
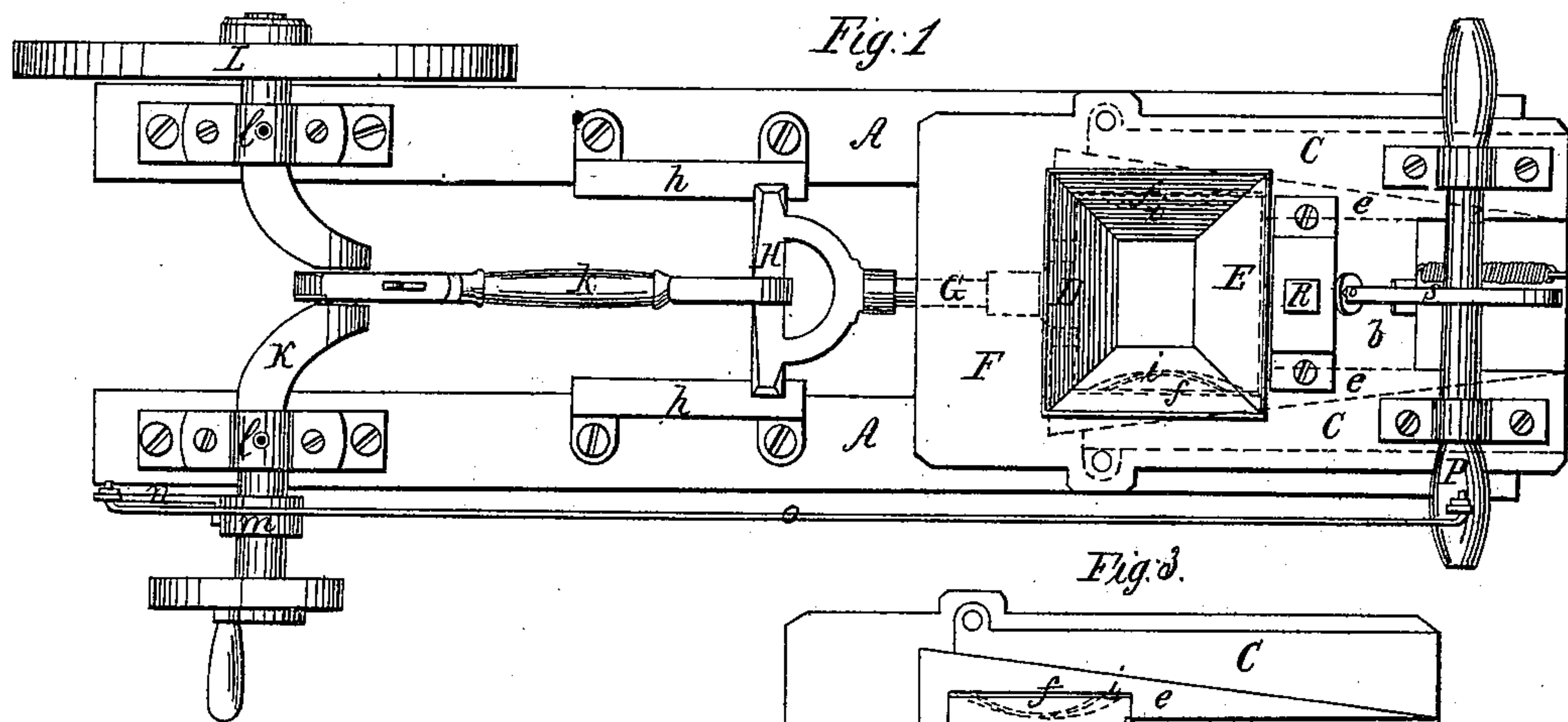


S. STRONG.
BRICK MACHINE.

No. 38,716.

Patented May 26, 1863.



Witnesses
C. H. Woodruff
N. W. Lathrop

Inventor;
Samuel Strong

UNITED STATES PATENT OFFICE.

SAMUEL STRONG, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO HIMSELF AND JEROME B. WOODRUFF, OF SAME PLACE.

IMPROVED BRICK-MACHINE.

Specification forming part of Letters Patent No. 38,716, dated May 26, 1863.

To all whom it may concern:

Be it known that I, SAMUEL STRONG, of the county and city of Washington, in the District of Columbia, have invented certain new and useful Improvements in Machinery for Molding and Pressing Brick; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 shows a plan or top view of the machine. Fig. 2 represents a side view or elevation of the machine.

My machinery pertains to that class for making brick of untempered or pulverized clay; and my invention consists of the simplified construction and arrangement of the movable parts forming the mold, so that three or more times the bulk may be compressed by the action of the contracting mold on all sides, thereby equalizing the pressure upon the corners and excluding the air from among the particles.

To enable others skilled in the art to make and use my invention, I will describe it more fully, referring to the drawings and the letters marked thereon.

I make my frame of timbers A A in a substantial manner, of suitable height to be convenient for working. On the top of the frame A A, at one end, is a flat metal plate, B, of a suitable size to form the bottom of the mold and support all of the parts operating on and in connection therewith. In the bed-plate B is an opening, into which is fitted a sliding bed, *b*, of metal, the same thickness of the bed-plate, and forms the under side of the mold proper when it is closed up to a joint, and when the slide *b* is drawn out it leaves an open space through the plate or table for the free discharge of the brick onto a trap-door, *w*, hung underneath and closed by a weight, *x*, so that the weight of the brick resting upon it will tip up the trap and allow the brick to slide safely out of the way to be carried off. On the top of the plate B, and firmly bolted with it to the frame A, are two wedged-shaped pieces, C C, the thickness of the brick, which pieces C C form the support to guide the wedges *e e*, which compress the ends of the brick and form the ends of the mold. The wedges *e e* are operated by the slide or plunger D, which is fitted into notches *f f* in the wedges *e e*, which expand by the action of elliptic springs *i i* when the plunger D is drawn

back to charge the mold with clay from the hopper E. Over the sliding wedges *e e* and plunger D is secured the top plate, F, it having on its under side a block or projection, *g*, which forms one edge of the mold. The top plate has an opening through it, to which is secured the hopper E, to admit and conduct the clay into the mold for the action of the compressors, which are operated by piston *c*, guided by a cross-head, H, and guides *h h*, the whole being put in motion by an eccentric or crank shaft, K, and coupling-bar *k*, secured to run in boxes *l l* at the opposite end of the frame A. The action of the machine is equalized by the momentum of the fly-wheel L on the end of the crank-shaft K. After the brick is formed, it is delivered from the mold by the action of the cam *m* on the shaft K, which works the vertical lever *n*, connecting with a rock-shaft, P, by the rod *o*. To the rock-shaft P there is an arm, *q*, reaching to and operating the slide *b* in the bed-plate B, so as to open the bottom of the mold, and a vertical plunger, R, is placed over the opening, and held up by a spring, *r*, and is forced down by the arm S on the rock-shaft P, thereby causing the certain liberation of the brick from the mold onto the balanced trap-door *w*.

My machine may be operated by any kind of power, and will mold a perfect brick of a superior quality at every revolution of the crank-shaft, no matter how great the speed may be. Thus it will readily be seen that by my extremely simple and comparatively cheap arrangement of mechanism brick of a very superior quality can be molded with the most astonishing facility.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The construction and arrangement of the expanding and contracting mold by the action of the sliding wedges *e e* and the plunger D, operating in the manner as herein described, for the purposes set forth.

2. The balanced trap-door *w*, for receiving and discharging the brick after it is liberated from the mold, in combination with the slide *b* and plunger R, substantially as herein specified.

SAMUEL STRONG.

Witnesses:

E. W. WOODRUFF,
N. W. NORTHRUP.