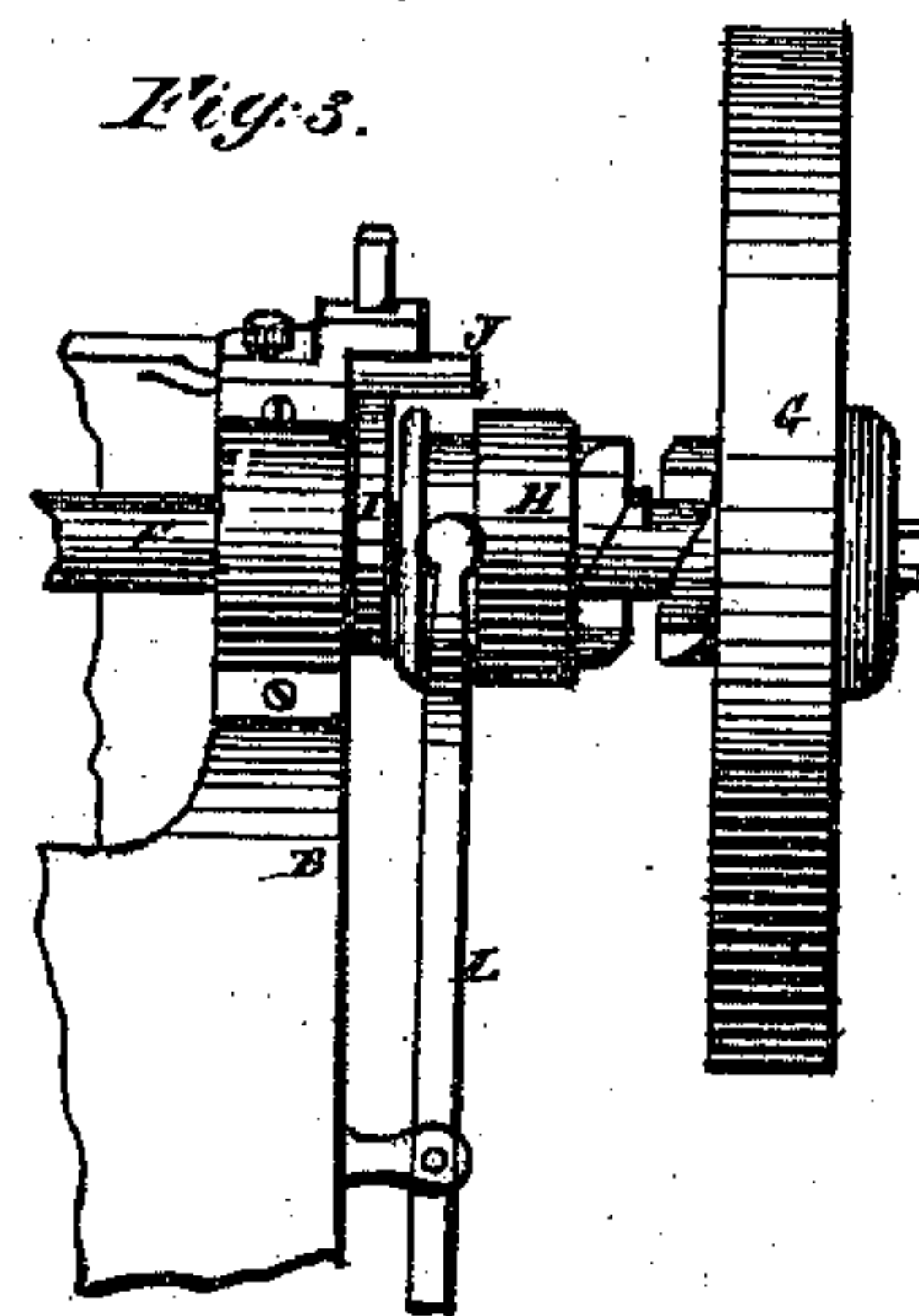
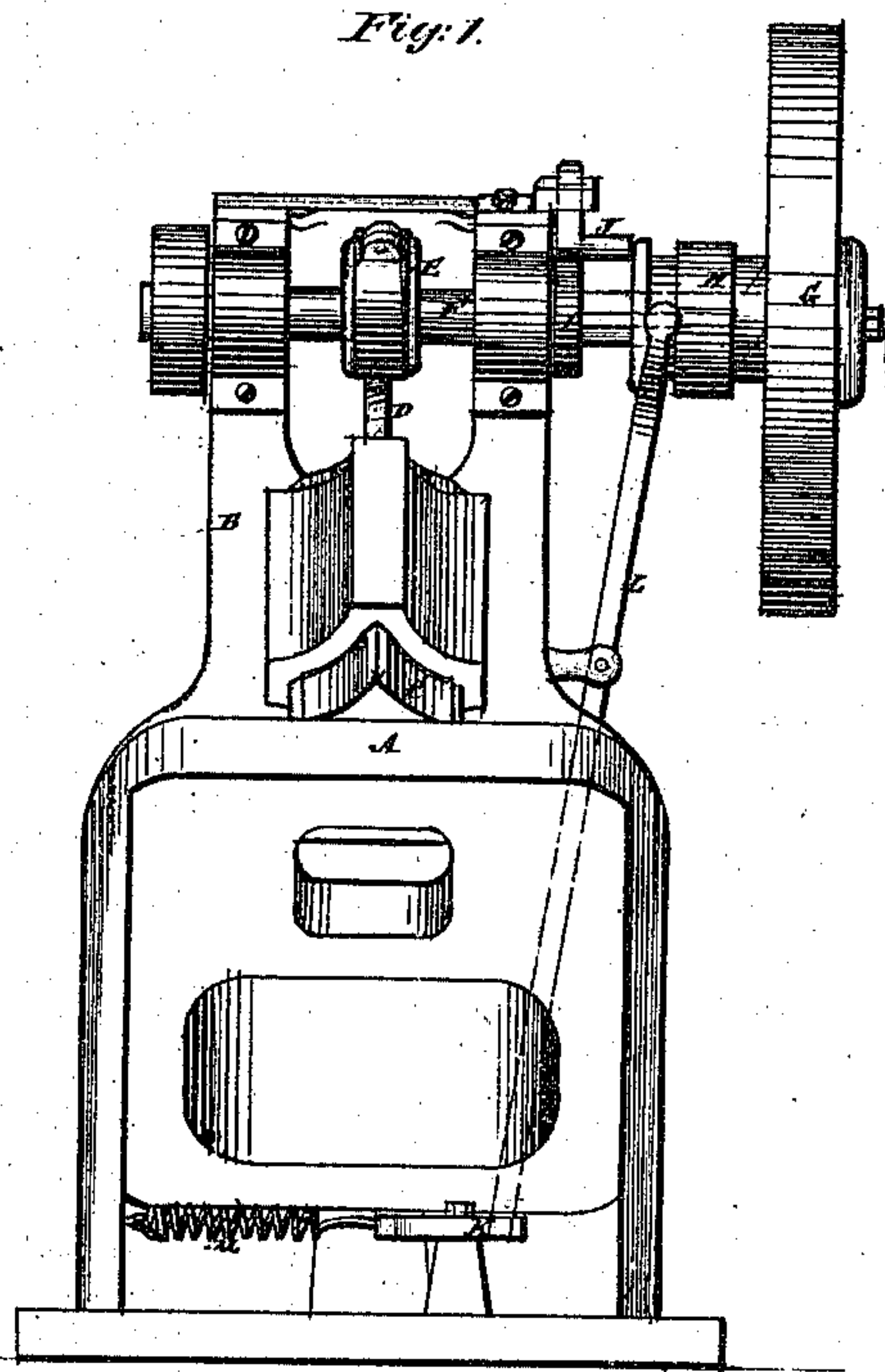
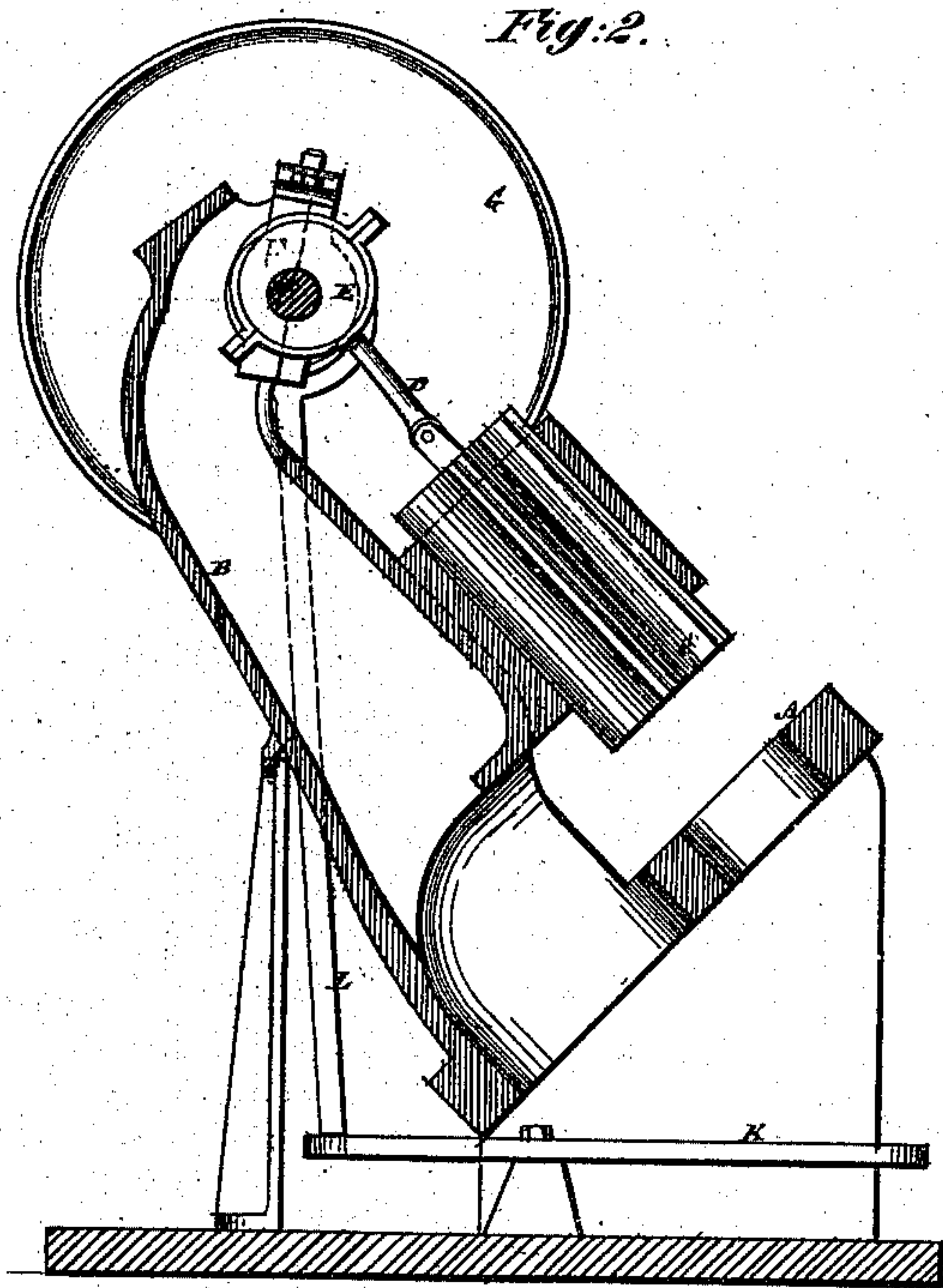


E. W. BLISS.
POWER PRESS.

No. 105,632.

Patented July 26, 1870.



Witnesses:

John. Holmes
R. R. Robinson

Ephraim W. Bliss

United States Patent Office.

ELIPHALET W. BLISS, OF BROOKLYN, NEW YORK, ASSIGNOR TO MAYS, BLISS, & CO., OF SAME PLACE.

Letters Patent No. 105,632, dated July 26, 1870.

IMPROVED POWER-PRESS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ELIPHALET W. BLISS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Power-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a front elevation of a power-press constructed in accordance with my improvement;

Figure 2, a central sectional elevation at right angles to fig. 1; and

Figure 3, a front view of the upper portion of the press in part, illustrating the trip-motion in a different position to that shown in fig. 1.

Similar letters of reference indicate corresponding parts.

In the improved power-press which is the subject of this invention, and which, as here represented, is a die-press, suitable for making stamped articles, like fruit-can tops and bottoms, and other metal work, the bed portion which carries the fixed die or dies is set to occupy an inclined position, sloping downward from the front toward the back, and the plunger also set inclined to lie at right angles to the bed, whereby the usual "striking off" is dispensed with by the automatic removal of the finished work in rear of the bed.

Furthermore, a trip-motion of novel character or construction is applied to the press for arresting the plunger at the top of its stroke, when out of the way in respect to the lower die, and keeping it arrested in such raised position without stopping the running wheel or pulley that drives the operating shaft of the press.

Referring to the accompanying drawing—

A is the bed portion that carries the fixed die, and which is arranged to occupy an inclined position, preferably of about forty-five degrees, sloping downward in a backwardly direction.

B is the main frame, and

C, the plunger, carrying the moving die, and which is also set inclined, to lie at right angles to the bed.

Said plunger is represented as actuated, through a connecting-rod, D, by an eccentric, E, on the horizontal driving-shaft F, at the upper end of the main frame.

The inclination of the bed A, carrying the fixed die or dies, allows the finished articles to slide off

without involving the trouble, on the part of the operator, of striking them off.

Motion is communicated to the driving-shaft F by a pulley, G, a sliding clutch, H, on said shaft being made to gear therewith.

To stop the plunger by the sliding of the clutch, which dispenses with arresting the motion of the driving-pulley, it is requisite, in the practical operation of the press, that the plunger should be stopped when at its highest point, which gives the necessary room for clearing or taking out and changing the dies.

To effect this, the following means that dispenses with a spring or springs for the purpose, other than one applied to the clutch-shifting treadle, and which may be supplanted by a weight, are employed.

On the driving-shaft F is secured a cam, I, that serves, when the plunger is at its highest position, to lift a vertically sliding or rising and falling stop, J, to the clutch, said stop operating, when down, to keep the clutch H in gear with the pulley G, or prevent it from being slid out of gear therewith, but when raised it permits of the clutch sliding out of gear with the pulley.

Said clutch H is forced or held in gear with the driving-pulley G, to keep the press running, by pressing on or against a treadle, K, connected by a rod, L, with the clutch.

On taking off, however, pressure from the treadle, a spring, M, serves to actuate the latter and move the clutch to throw it out of gear with the driving-pulley G, so soon as the cam I, in coming round, lifts the stop J, to permit of the clutch H sliding under it, which, by the set of the cam I, is, when the plunger is at its highest point, and the stop J thus raised, kept elevated by riding on the clutch, the plunger remaining stationary in its highest position. On again working the treadle to throw the clutch into gear with the driving-pulley, the stop J falls, to operate as before.

What is here claimed, and desired to be secured by Letters Patent, is—

The combination of the rising and falling stop J, the cam I, on the driving-shaft F, the pulley G, the clutch H, and treadle and lever operating the same, with the plunger C of the press, essentially as and for the purpose herein set forth.

Witnesses: ELIPHALET W. BLISS.

FRED. HAYNES,
HENRY PALMER.