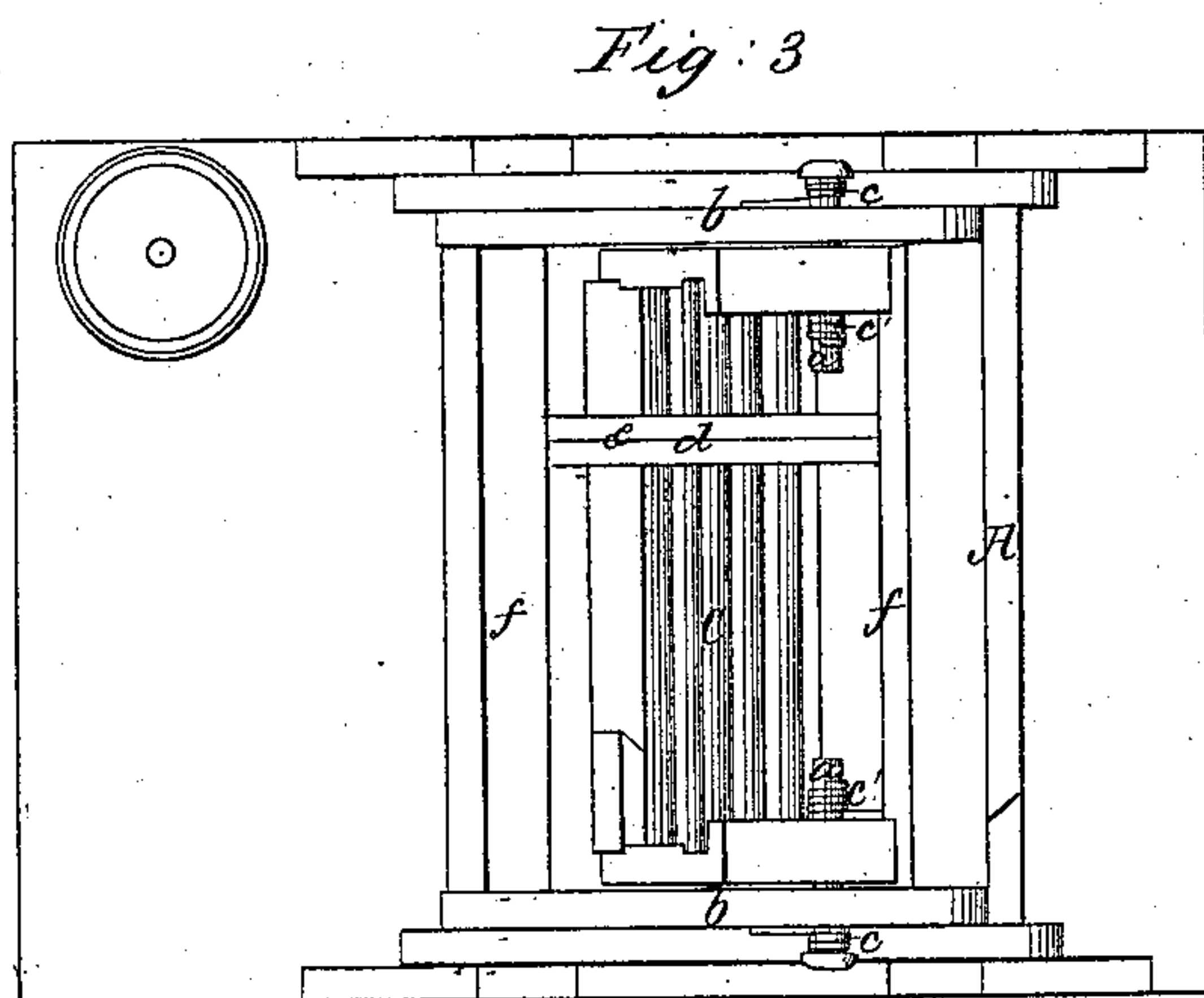
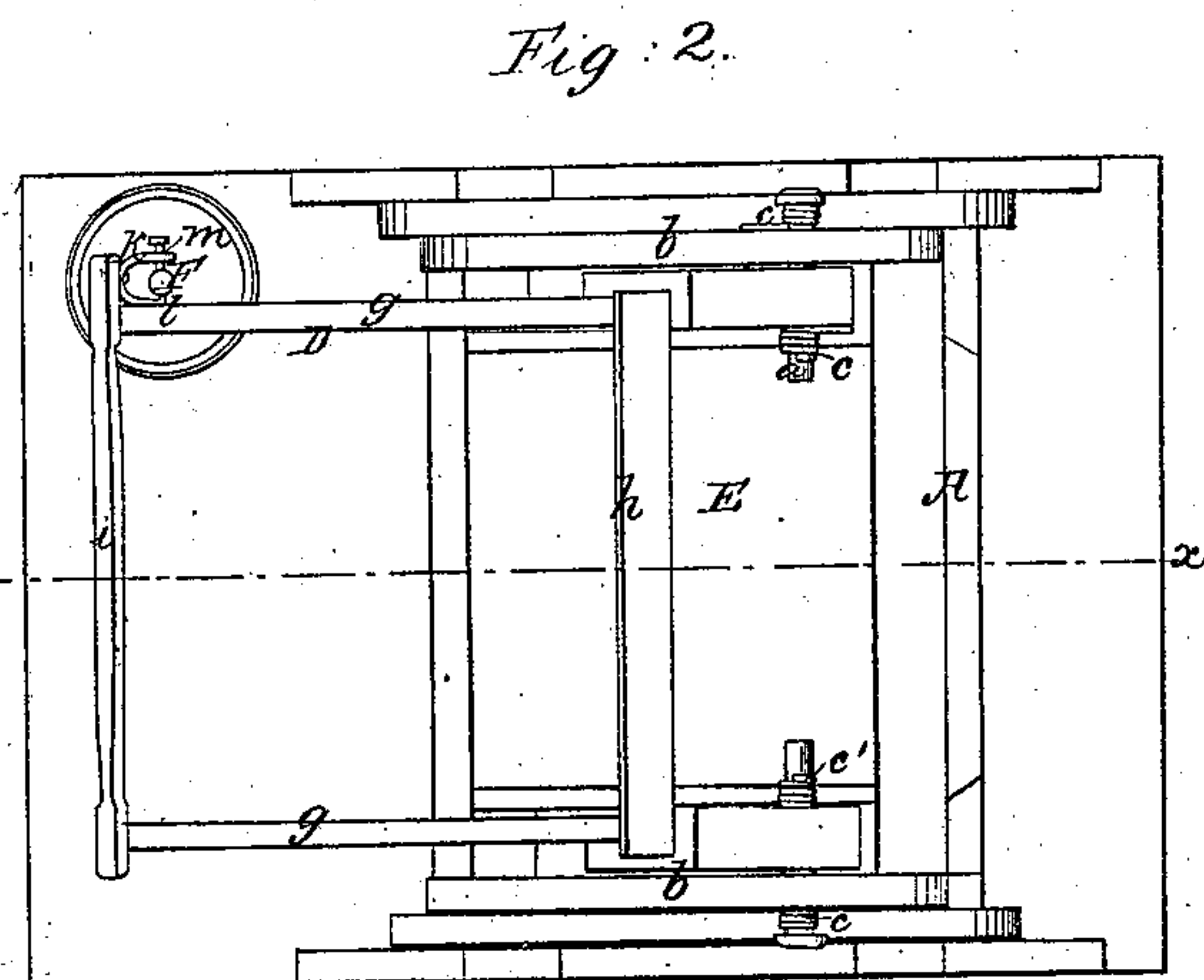
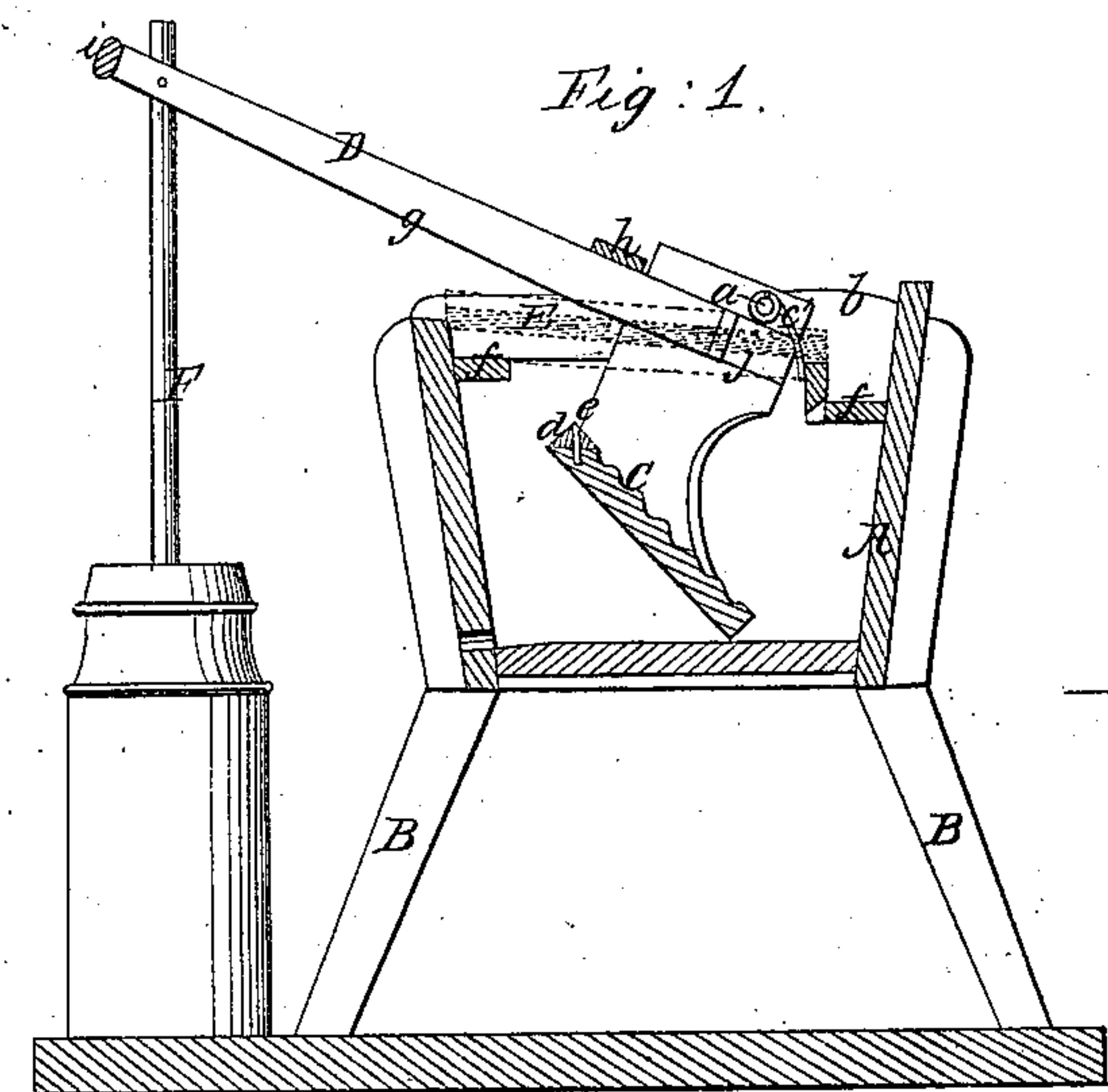


W. M., E. P. & E. Doty,

Washing Machine,

N^o 52,273.

Patented Jan. 30, 1866.



Witnesses;

*Wm. Creann
Thos. Duvick*

Inventor;

W. M. Doty

E. P. Doty

E. S. Doty

Per Munn & Co. Attys

UNITED STATES PATENT OFFICE.

W. M. DOTY, E. P. DOTY, AND ELLIS DOTY, OF JANESVILLE, WISCONSIN.

WASHING-MACHINE AND CHURN-POWER.

Specification forming part of Letters Patent No. 52,273, dated January 30, 1866.

To all whom it may concern:

Be it known that we, WILLIAM M. DOTY, E. P. DOTY, and ELLIS DOTY, of Janesville, in the county of Rock and State of Wisconsin, have invented a new and Improved Washing-Machine and Churn-Power Combined; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal vertical section of this invention, the line *xx*, Fig. 2, indicating the plane of section. Fig. 2 is a plan or top view of the same when arranged for washing and churning. Fig. 3 is a similar view of the same when the churn is detached and the machine arranged for hand-washing.

Similar letters of reference indicate like parts.

This invention relates to certain improvements in that class of washing-machines in which a vibrating presser is used to produce the requisite action on the clothes to be washed. This presser is suspended from pivots on which it is firmly keyed, and which are subjected to the action of two coiled springs connected to them on opposite sides of their bearings, and arranged in such a manner that they affect each other's lateral pressure, and consequently relieve the friction on the pins. The handle or frame, which serves to operate the presser, forms a convenient churn-power, which when attached to a churn-dasher greatly facilitates the operation of the churn.

A represents a tub, made square, oblong, or of any other convenient form or shape, of wood or any suitable material, and supported by legs B at a convenient height from the ground. The ends of this box, or suitable cleats *b* rising from said ends, form the bearings for the pins *a*, from which the presser C is suspended. The presser is firmly keyed to the pins and the pins turn freely in suitable sockets in the cleats *b*. Each of the pins is subjected to the action of two springs, *cc'*, one of which is secured to its inner and the other to its outer end in such a manner that the lateral pressure of one spring affects that of the other, and the friction on the pin is relieved.

The presser is constructed with a corrugated face similar to an ordinary wash-board, and its upper edge is provided with a movable strip, *d*, which swivels on a pivot, *e*, so that it can be turned in line with the body of the presser or placed in a position at right angles to the same. In the latter position the strip *d* catches under cleats *f* nailed to the inner surface of the front and rear sides of the box A, and retains the presser in the position shown in Fig. 3, in which the same can be used like an ordinary wash-board for hand-washing.

When the strip *d* is turned in line with the body of the presser a vibrating motion can be imparted to the same by a hand-lever or frame, D, which is composed of two longitudinal bars, *g*, united by cross-bars *h i*, as shown particularly in Fig. 2 of the drawings. The inner ends of the longitudinal bars of the lever-frame are slightly beveled, and they catch into corresponding guide-grooves *j* in the inner surfaces of the arms which connect the presser with the pins *a*. The outer cross-bar, *i*, forms the handle of the lever-frame, and by taking hold of it with one or both hands the desired motion can be imparted to the presser with ease and convenience.

If desired, a cover, E, may be placed on the tub, and this cover is so formed and supported that it does not interfere with the vibrating motion of the presser. Said cover may serve as a seat for the operator, who in that case faces toward the handle of the lever-frame, and is enabled in this position to impart to the lever-frame and presser the desired motion with the greatest ease and facility. In fact, the power which the operator can bring to bear on the lever-frame without the least over-exertion is so great that the surplus power can be readily employed for the purpose of operating a churn. In order to effect this purpose we connect the end of the lever-frame to the staff F of a churn-dasher, so that by imparting to said lever-frame an oscillating motion a reciprocating rising-and-falling motion is given to the dasher. The connection between the lever-frame and the dasher-staff is effected by a screw-clamp, *k*, which is secured to the front cross-bar or handle of the lever-frame, and which is provided with a fixed spur, *l*, and a pointed screw, *m*. By

means of this spur and pointed screw the lever-frame can be secured to the dasher-staff at any desired height to suit the convenience of the operator, and the operations of washing and churning can be combined and executed with comparatively little exertion.

We claim as new and desire to secure by Letters Patent—

1. The arrangement of springs *c c'* on opposite ends of the fulcrum-pins *a* of the presser, substantially as and for the purpose described.

2. The swivel-bar *d* on the top edge of the

presser, constructed and operating substantially as and for the purpose set forth.

3. The described combination with the churn and wash-tub of the spring-lever frame *D* for the purpose set forth.

WM. M. DOTY.
E. P. DOTY.
ELLIS DOTY.

Witnesses :

O. G. GILLETT,
J. B. PROFER.