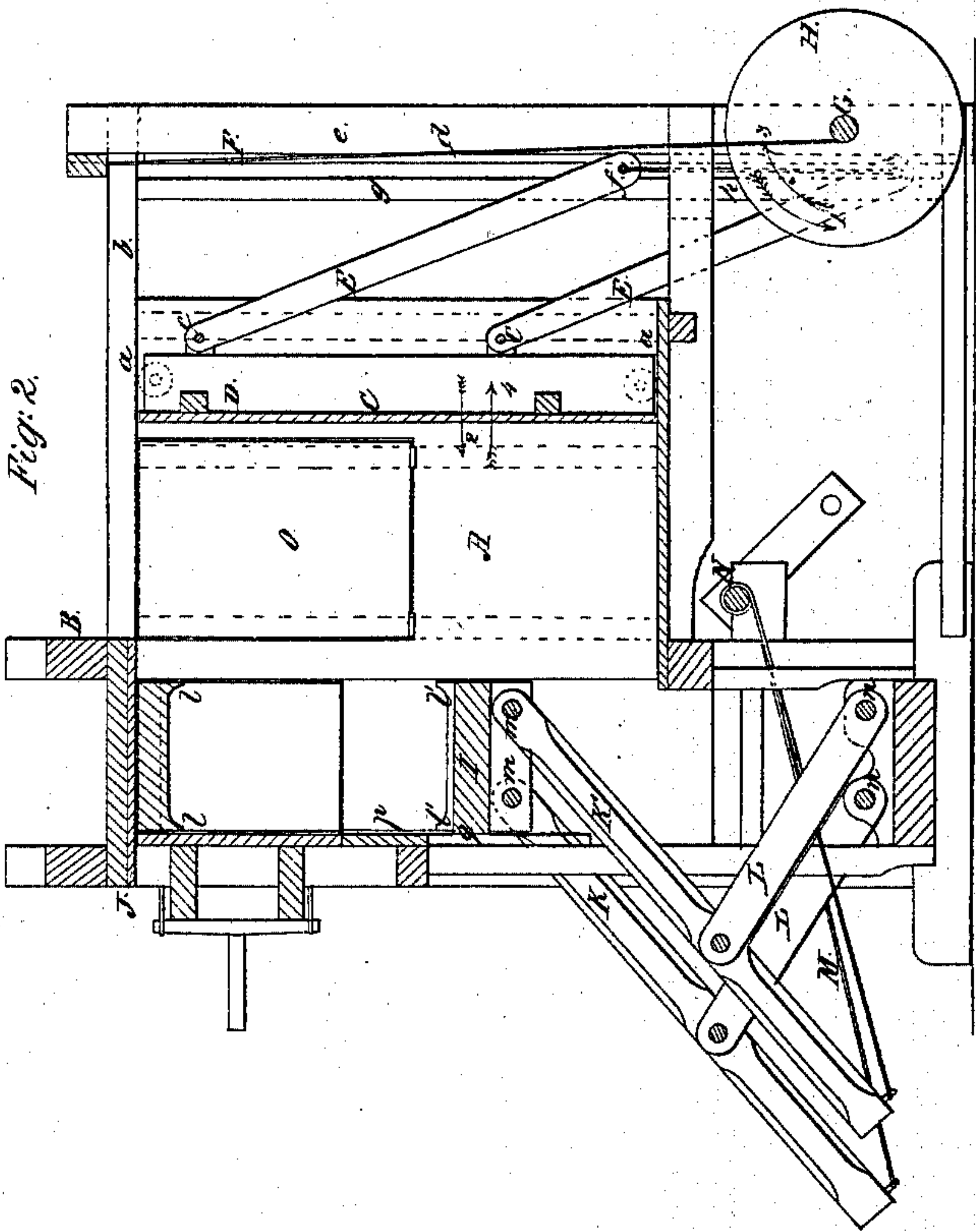
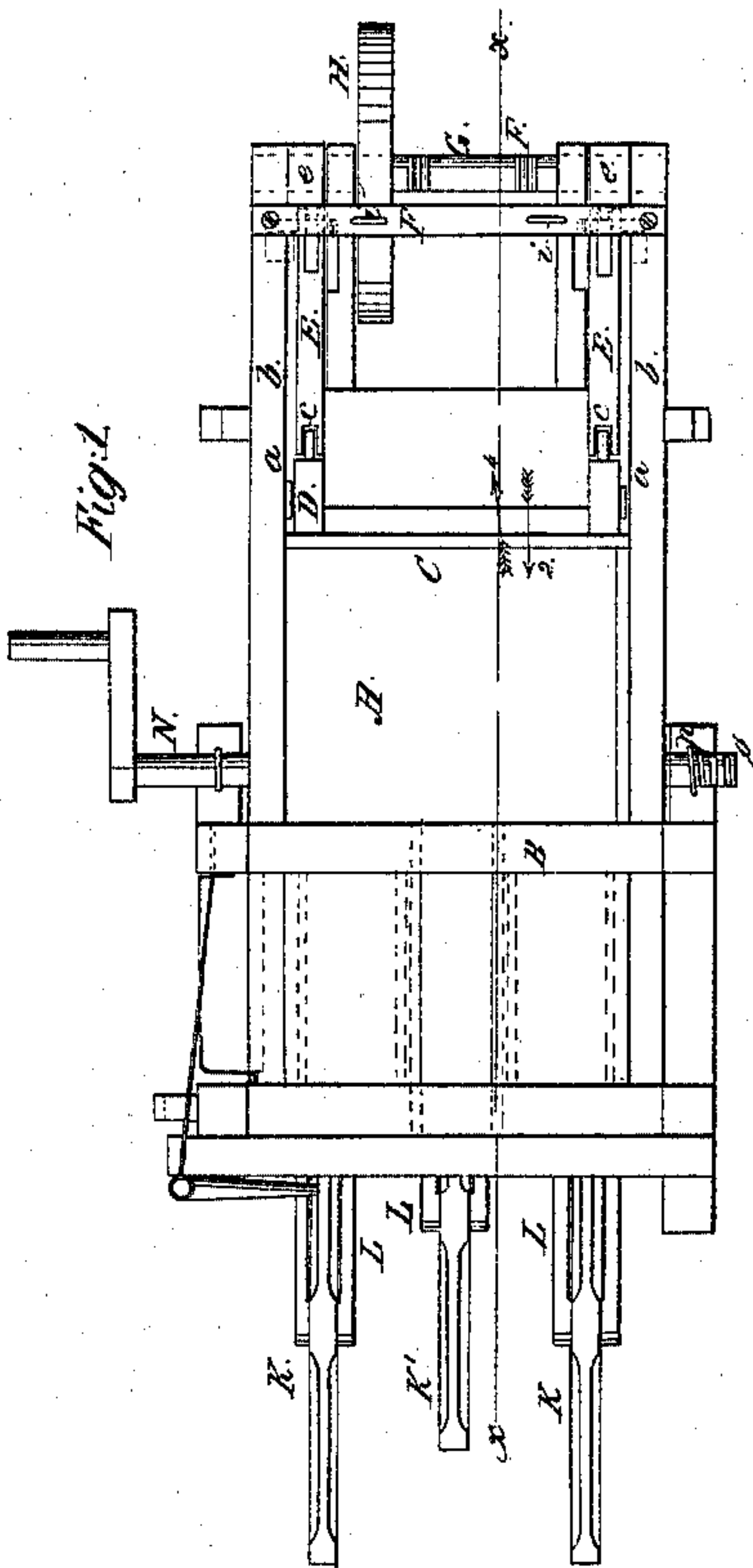
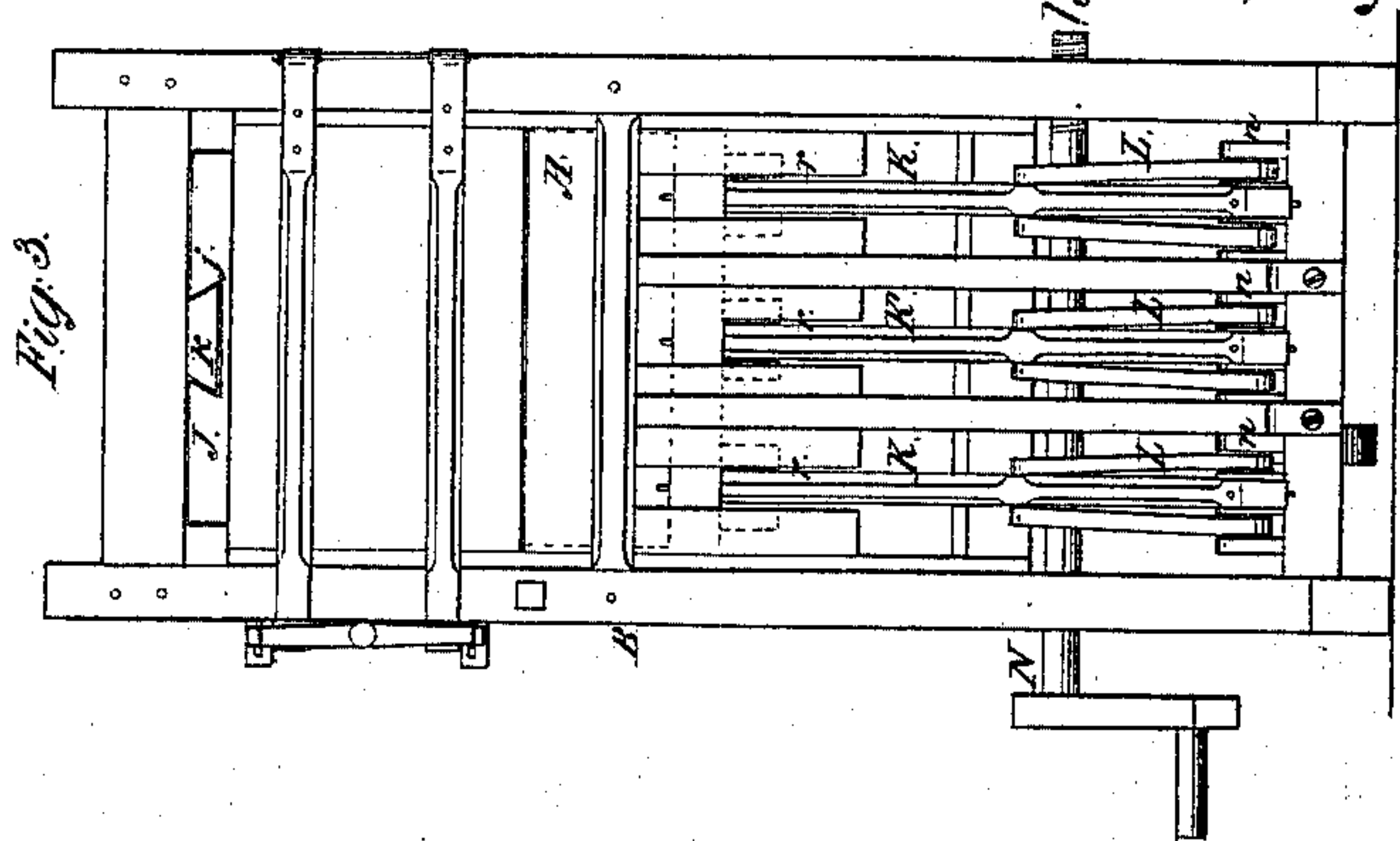


S. J. Austin

Cotton Press.

N^o 68,935.

Patented Sep. 17, 1867.



Witnesses:
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J. A. Service

Inventor:
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United States Patent Office.

S. J. AUSTIN, OF FREEPORT, MAINE.

Letters Patent No. 68,935, dated September 17, 1867.

IMPROVEMENT IN BALING-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, S. J. AUSTIN, of Freeport, in the county of Cumberland, and State of Maine, have invented a new and improved Baling-Press; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those 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 is a plan or top view of my invention.

Figure 2 a side sectional view of the same, taken in the line *x x*, fig. 1; and

Figure 3 an end view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved baling-press, and is an improvement on a press patented by me 7th February, 1865.

The invention consists in novel means employed for operating the platen and the expanding side of the press-box; and also in a peculiar construction of the platen and head-block, and other features hereinafter fully shown and described, whereby a very simple, efficient, and durable press is obtained, and one which may be operated or manipulated with the greatest facility.

A represents the press-box, which is supported by a suitable framing, B. This press-box is provided with a movable or sliding side, C, attached to a vertical frame, D, having rollers, *a*, at its upper and lower ends, the lower rollers resting on the bottom of the press-box, and the upper ones bearing against the two upper longitudinal beams *b b* of the framing B, as shown in fig. 2. The frame D of the side C has four arms, E, attached to it by joints *c*, two at each side, and the outer ends of said arms are slotted longitudinally to work on vertical guides *d d*, attached to the two end uprights *e e* of the framing D, and said outer ends of the arms have pins, *f*, passing transversely through them, which pins work between the guides *d d* and uprights *g g* of the framing. The outer ends of the arms E, at each side of the framing B, are connected by rods *h*, and the outer ends of the upper arms E have cords or chains, F F, attached to them, which pass over pulleys *i i* in the upper part of the framing B, and then extend downward, and are attached to a shaft, G, in the lower part of the framing, said shaft having a pulley, H, upon it. By turning the shaft G in the direction indicated by arrow 1, the outer ends of the arms E will be raised, and the side C of the press-box moved inward in the direction indicated by arrow 2, and by turning the shaft G in the opposite direction, as indicated by arrow 3, the outer ends of the arms E will be drawn downward, and the side C moved outward, as indicated by arrow 4, (see fig. 2.) I represents a horizontal platen, which works up and down within the press-box A, and underneath a head-block, J, which is fitted in the upper part of the framing B, the upper surface of said head-block having a dove-tail groove, *j*, made in it to fit on a dove-tail cleat, *k*, in the framing, as shown in fig. 3. By this arrangement the head-block may be readily slipped out and detached from the framing when necessary. The under side of the head-block is of concave form, or it may be described as having pendent lips, *l*, at its front and rear sides, as shown in fig. 2. The upper surface of the platen I is provided with similar lips *l'*, having an upright position, as also shown in fig. 2. To the under side of the platen I the upper ends of three arms, K K K', are attached by pivots *m*, the arms K K being attached to the platen near its outer end, and the lever K' attached to said platen near its rear end. These arms K K K' are pivoted near their centres to arms L, the lower ends of which are connected by joints *n* to the bottom of the framing. These arms K K K' and L form toggles, as will be seen by referring to fig. 2. To the lower ends of the arms K K K' there are attached chains or cords, M, which pass underneath the press-box A, and are connected to a shaft, N. One of the journals, *o*, of this shaft has a screw-thread, *p*, cut upon it to work in a female screw in its bearings. By this means a longitudinal motion is imparted to the shaft N when it is rotated, and the chains or cords M will always be kept in line with the arms K K K' and L, and not made to pull obliquely upon them, as would be the case were the shaft N allowed to rotate in a fixed position, owing to the coiling of the chains or cords around said shaft N. In one side of the press-box A, at the rear of the head-block J and platen I, there is a door, O, opening inward. To the outer or front side of the platen I there is attached by joints *g* a metal apron, P, which, when the platen I is lowered, covers the slots *r* in the front side of the press-box, in which slots the arms K K K' work when the platen I is raised.

The operation is as follows: The side C is drawn outward to its fullest extent in the direction indicated by

arrow 4, and the platen I also lowered to its fullest extent. The hay or other substance to be compressed is thrown into the upper end of the press-box A, and the pulley H is turned in the direction indicated by arrow 1, and the side C moved in the direction indicated by arrow 2, so as to force the substance to be compressed and baled between the platen I and head-block J. This being accomplished, the shaft N is then turned and the arms or toggles K K K' L are made to raise the platen I, which, when it reaches its culminating point, completes the operation. In consequence of the arms K K K' attached to the platen I, as shown and described, the platen is made to ascend in a horizontal position, and by means of the lips *l l' l''* on the head-block and platen, the substance is compressed properly at the angles or corners. When the substance is fully compressed, the door O is opened or thrown inward to a horizontal position, and the outer door Q is thrown open and the bale is then bound or hooped and the bale removed. The side C and platen I are then moved back to their original position, the door O closed, and the operation repeated.

I do not claim broadly the expanding or sliding side C to a press-box of a baling-press, for that may be seen in the Letters Patent formerly granted to me and previously alluded to; but I do claim as new, and desire to secure by Letters Patent—

1. The operating of the side C through the medium of the arms E, applied at one end to the side C, and having their opposite ends fitted in or between suitable guides with cords or chains F attached, which are connected to a shaft or windlass, G, substantially as shown and described.

2. Providing one of the journals *o* of the shaft N with an external screw-thread, *p*, to work in an internal screw in its bearing, or with an equivalent device, to give the shaft N a longitudinal movement while being rotated, and thereby keep the chains or cords M in line with the arms K K K', substantially as set forth.

3. The lips *l l' l''*, on the level block J and platen I, substantially as and for the purpose herein set forth.

4. The securing of the head-block J in the framing B, by means of the dove-tail cleat *k* on the framing fitting in the dove-tail groove *j* in the upper surface of the head-block, substantially as set forth.

5. The metal apron P, attached to the platen I, substantially as and for the purpose specified.

6. The door O in the side of the press-box A, when used in combination with the sliding or expanding side C and the platen I, arranged substantially as shown and described.

S. J. AUSTIN.

Witnesses:

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