

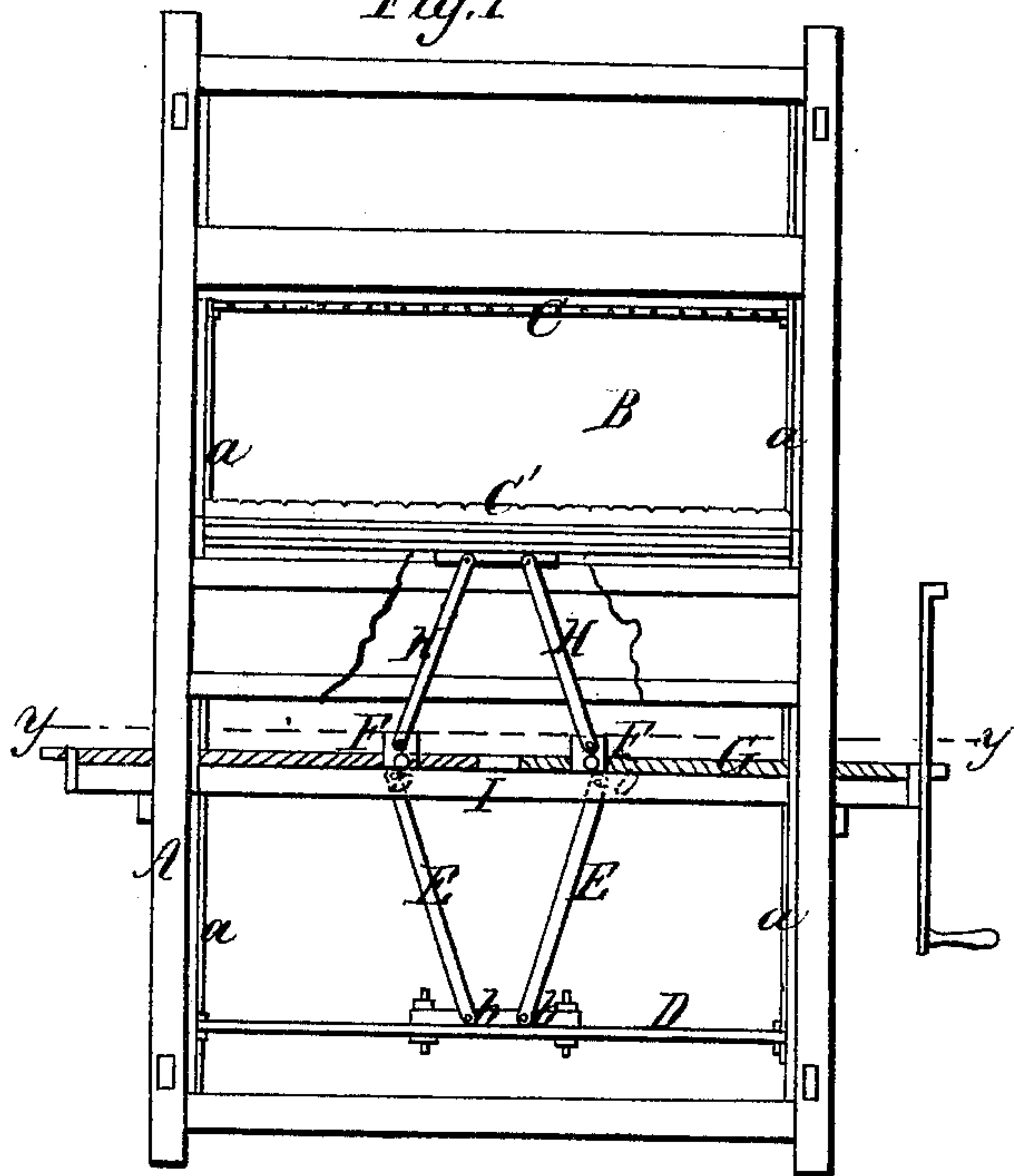
*H. H. Tift,*

*Hay Press.*

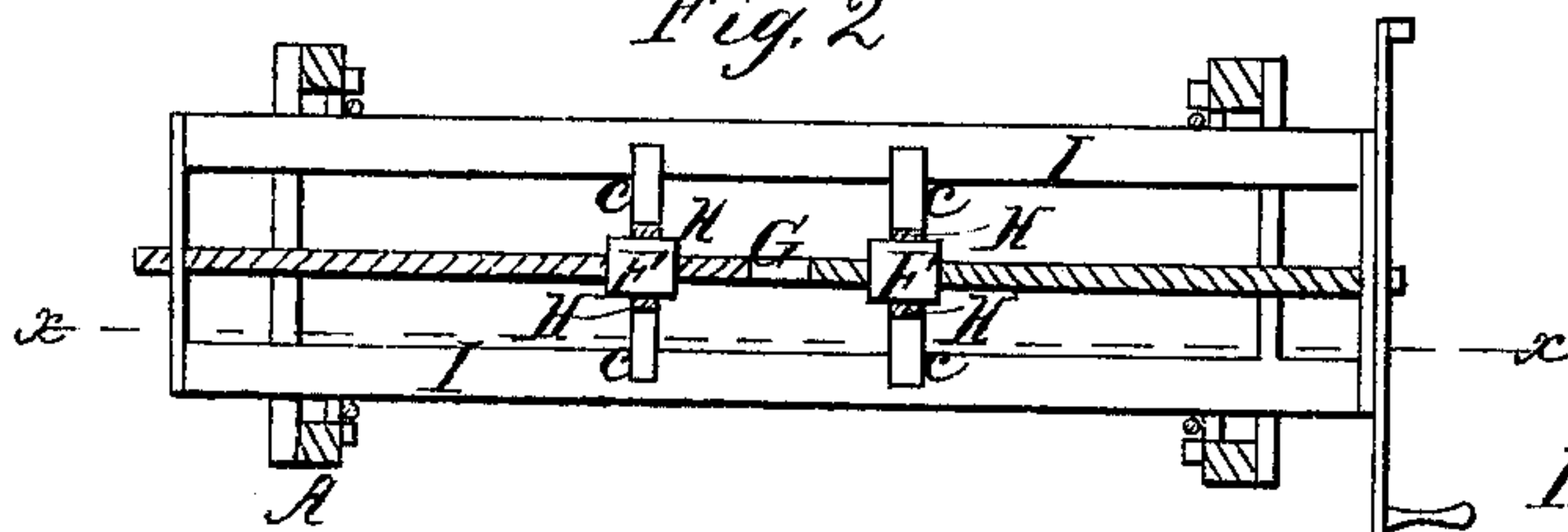
*No. 91,495.*

*Patented June 15, 1869.*

*Fig. 1*



*Fig. 2*



*Witnesses*  
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# United States Patent Office.

HENRY H. TIFT, OF MYSTIC, CONNECTICUT.

Letters Patent No. 91,495, dated June 15, 1869.

## IMPROVEMENT IN BALING-PRESSES.

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, HENRY H. TIFT, of Mystic, in the county of New London, and State of Connecticut, have invented a new and useful Improvement in Baling-Presses, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvement, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

This invention relates to a new and useful improvement in that class of baling-presses in which toggles or toggle-levers are employed for operating the platens.

The object of the invention is to render this class of presses (those built on the upright plan) far more durable and stronger than they now are, and this is effected by having the right and left-hand screw, by which the toggles are operated, firmly supported, in such a manner that it cannot be deflected or bent out of a right line, and without causing any undue friction in the operation of the press.

The upright baling-presses of this class are provided, of course, with a horizontal screw, which is very liable to become bent or deflected from a right line, under the weight of the bale or article being pressed.

My invention fully obviates this difficulty, as will be clearly seen from the following description.

In the accompanying sheet of drawings—

Figure 1 is a sectional elevation of my invention, taken in the line *z z*, fig. 2.

Figure 2, a horizontal section of the same, taken in the line *y y*, fig. 1.

Similar letters of reference indicate corresponding parts in the several drawings.

A represents the framing of the press, which may be constructed in any proper manner to insure strength and durability.

B represents the press-box, in which two platens C C' work up and down simultaneously toward and from each other.

The upper platen C is attached to rods *a*, four in number, one at each angle or corner of the platen, and these rods extend downward, and are attached at their lower ends to a sliding plate, D, to which the lower ends of toggles E are connected by pivots *b*,

the upper ends of said toggles being connected by pivots *b'* to nuts F F', through which a right and left-hand screw, G, passes, the right-hand thread passing or working through one nut, and the left-hand thread passing through the other.

The other platen C' is fitted, and allowed to work loosely upon the rods *a*, as guides, and this platen C' has pivoted to its under side the upper ends of toggles H, the lower ends of the latter being pivoted to the nuts F F'.

The nuts F F' have trunnions, or bearings *c* projecting out from them, one from each side, and these trunnions, or bearings rest and work upon horizontal guides I, firmly secured to the framing A.

From the above description, it will be seen that the screw G will be effectually sustained in position while being turned, and the platens C C' moved toward and from each other, under the action of the toggles E H.

The screw G is relieved of the weight of the bale between the platens C C' by the trunnions, or bearings *c*, which rest or bear upon the guides I, and are allowed to slide freely thereon.

It will be understood, of course, that the screw G is not liable to be bent or deflected out of a right line under the action of the toggles, as the pressure of one pair of toggles is counterpoised by that of the other.

The weight of the bale is what would bend or deflect the screw, if the latter were not supported by the trunnions, or bearings *c*, resting on the guides I.

I wish it to be distinctly understood that I lay no claim to the toggles, and the right and left-hand screw and nuts, for operating the platens of baling-presses, for these parts have been previously used for such purpose; but

I do claim as new, and desire to secure by Letters Patent—

In an upright toggle-lever baling-press, the trunnions, or bearings *c*, projecting from the nuts F F' of the right and left-hand screw G, in combination with the guides I, on which the trunnions, or bearings *c* rest, all being arranged to operate in the manner substantially as and for the purpose set forth.

HENRY H. TIFT.

Witnesses:

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H. L. WATTENBERG.