

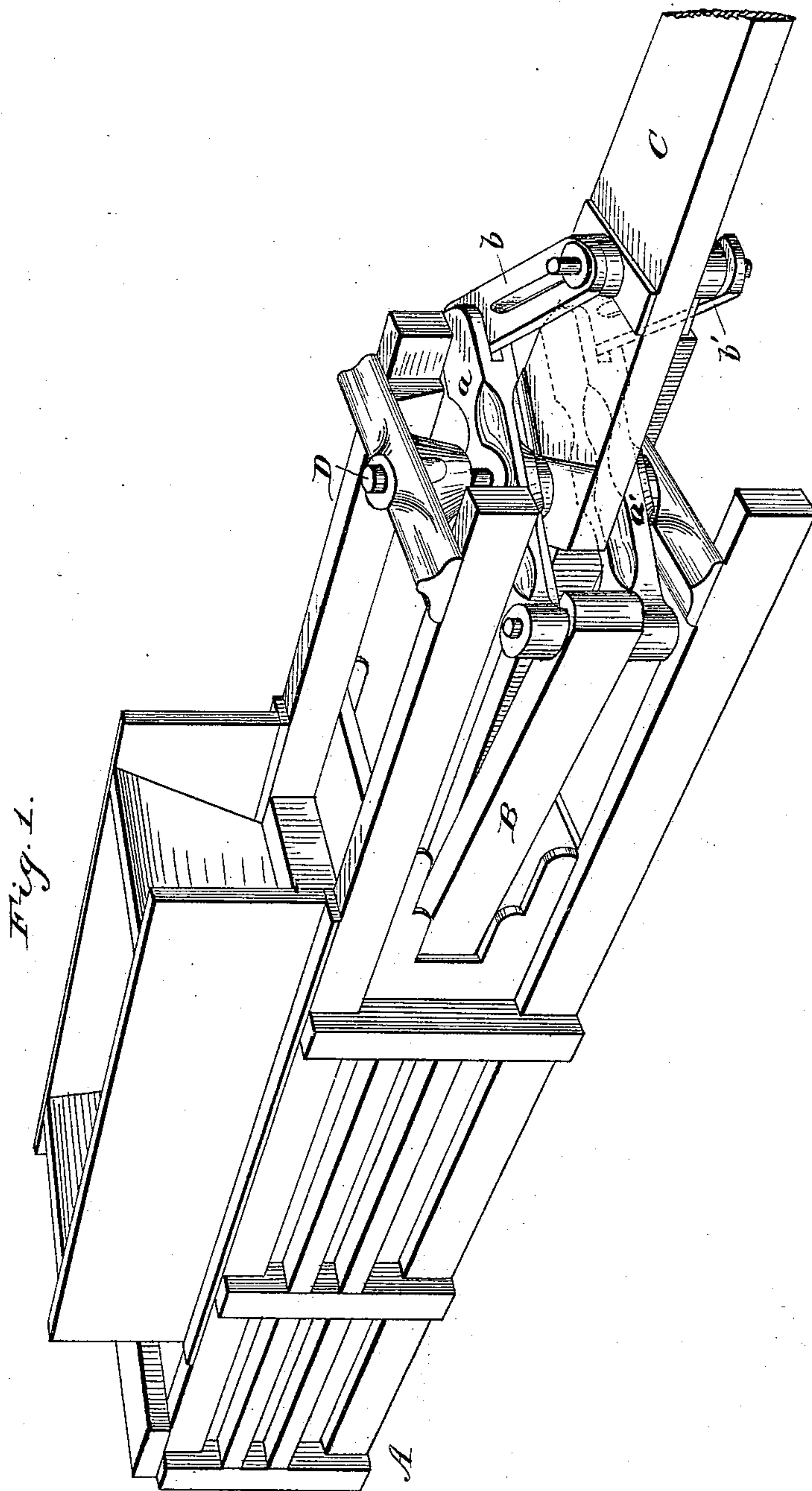
(No Model.)

2 Sheets—Sheet 1.

A. B. FARQUHAR.
POWER HAY PRESS.

No. 330,472.

Patented Nov. 17, 1885.



witnesses:
N. N. Low
J. Blandford

Inventor:
Arthur B. Farquhar
by Manuel S. Sully
his attorney

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

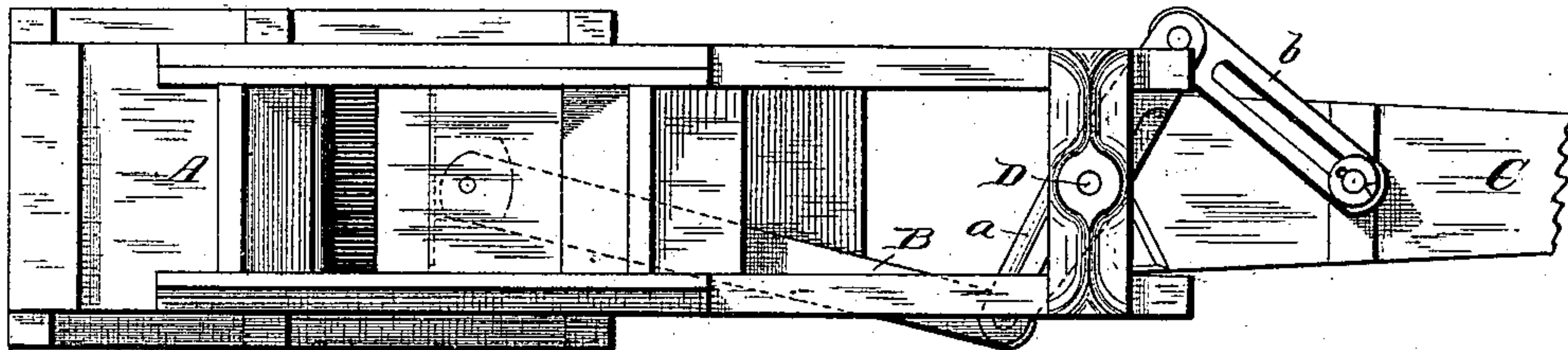
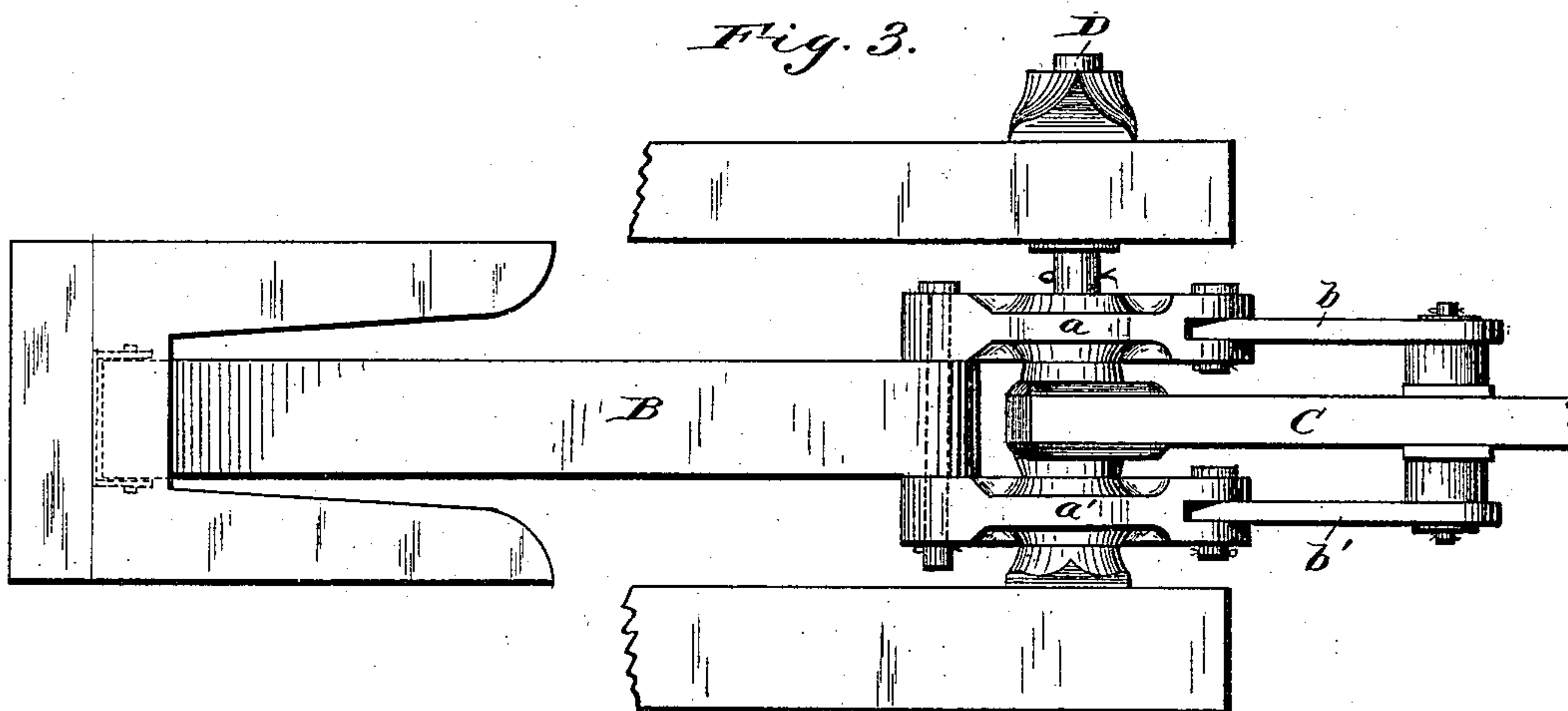


Fig. 3.



witnesses:

N. N. Low
J. H. Blumford

Inventor:

Arthur B. Farquhar
by Marshall Bailey
his attorney

UNITED STATES PATENT OFFICE.

ARTHUR B. FARQUHAR, OF YORK, PENNSYLVANIA.

POWER HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 330,472, dated November 17, 1885.

Application filed October 5, 1885. Serial No. 179,034. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. FARQUHAR, of York, in the State of Pennsylvania, have invented a certain new and useful Improvement in Power Hay-Presses, of which the following is a specification.

This improvement has been designed with more particular reference to the needs of lever-power presses, in which the plunger is of the "rebound" or "fly-back" type, although it is applicable also to presses in which the plunger has not this special action. It has reference to that portion of the mechanism by which the power is applied to the plunger, and is intended to prevent the twisting strain to which the lever is ordinarily subjected.

The invention can best be explained and understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of so much of a lever-power hay-press as needed for the purpose of illustrating my improvement. Fig. 2 is a plan, and Fig. 3 is a side elevation, on enlarged scale, of the power-applying mechanism.

A is a portion of the baling chamber of the press. B is the pitman or connecting rod, jointed at its inner end to the plunger, which works, as usual, back and forth in the baling-chamber. C is the swinging lever, to the outer end of which the power is applied—for instance, horses are hitched to it, if horse-power is to be used. It is hung at its inner end on a vertical shaft or axle, D, supported in proper bearings in the frame of the press.

Heretofore it has been the practice to connect the lever to the plunger, pitman, or rod B by a single arm, *a*, hung on shaft D, and pinned or jointed at one end to the rod B and at the other end to a slotted bar or link, *b*, connected to the lever by a pin fastened to the latter and projecting into the slot in the link. Such has been the general arrangement hitherto adopted for these portions of the power-applying mechanism of a rebound-plunger. The general plan on which said mechanism operates is well known and requires no description.

The difficulty which has been experienced in the practical use of the single-compound arm (as the parts *a* *b* may be considered) is that thereby undue twisting strain is brought

upon the lever, and the difficulty has been so great as to seriously interfere with, if not in effect forbid, the industrial use of the mechanism. This difficulty I have effectually remedied by employing two arms instead of one, arranging the lever between them and connecting them to the parts in such way that the strain is equalized on both sides of the lever, thus entirely removing any tendency to twisting action. This arrangement of parts is clearly illustrated in the drawings. Beneath the lever are the arm *a'* and the slotted link or bar *b'*, counterparts of the parts *a* and *b* above the lever, and connected in the same way to the lever and plunger-rod. Thus the two arms *a* *a'* are hung on the same shaft with the lever. The latter is arranged between them. At one end they embrace between them the outer end of the plunger-rod, and at the other end each is connected to its appropriate slotted link *b* or *b'*, the one link being connected to the lever from above and the other being connected to the lever from below. Strain is thus equalized, and all twisting action—such as above referred to—is entirely prevented.

In conclusion, I state that, as hereinbefore indicated, I do not broadly claim connecting the sweep or lever to the pitman through the intermediary of an arm hung on the same shaft or axis with the sweep or lever, and pinned or jointed at one end to the said pitman and at the other end to a slotted link connected to the sweep or lever by a pin fastened to the latter and projecting into the slot of the link; but,

Having described my improvement, what I claim, and desire to secure by Letters Patent, is—

The combination, with the plunger-rod, the lever and shaft or axle on which it is hung, of the two arms hung on the same axis or shaft with the lever, and embracing the latter between them, connected on the one hand to the plunger-rod and on the other hand to the opposite sides or faces of the lever, as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 25th day of September, 1885.

ARTHUR B. FARQUHAR.

Witnesses:

W. E. FINDLEY,
FRANK SMYSER.