

G. H. Babcock.
Printing Press.

Nº 10263.

Patented Dec. 23. 1856.

Fig. 2.

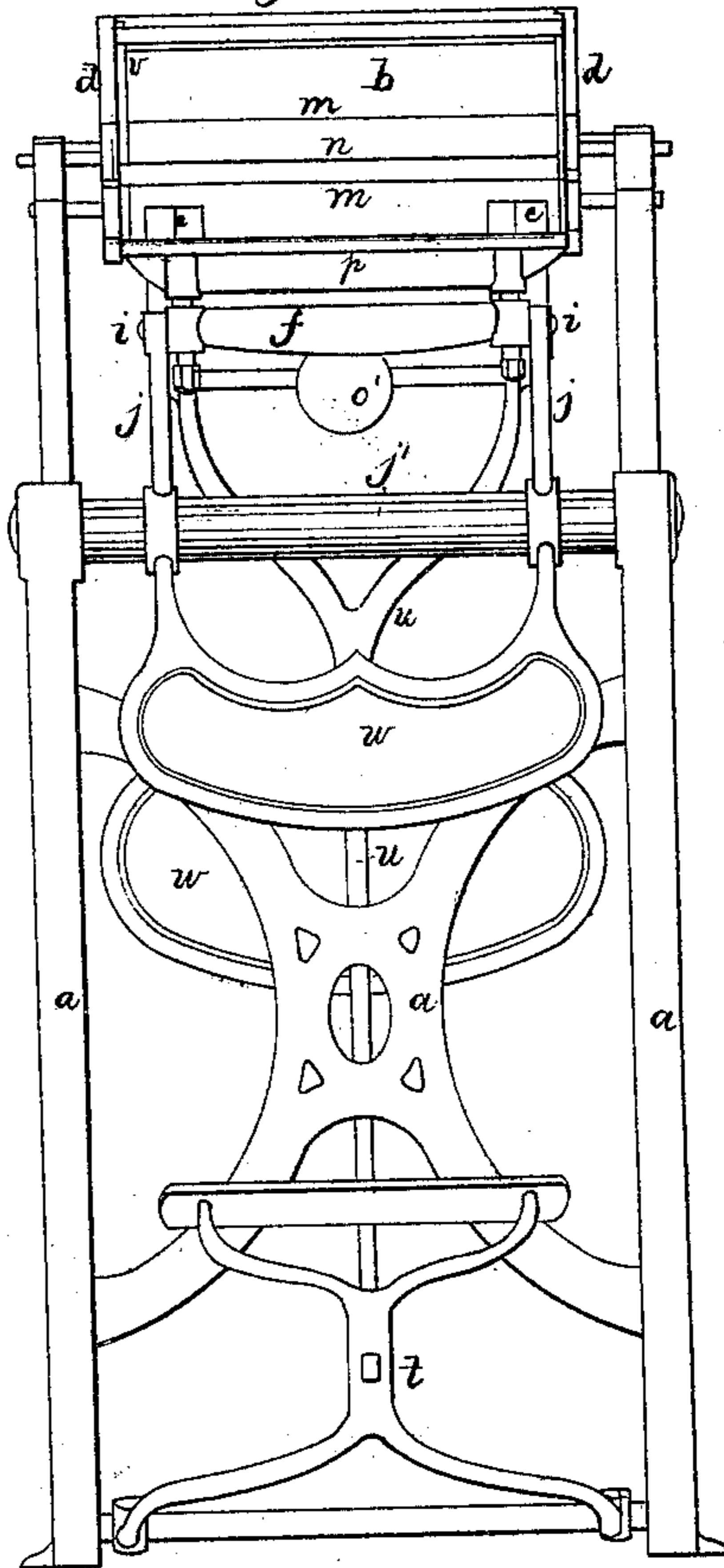


Fig. 1.

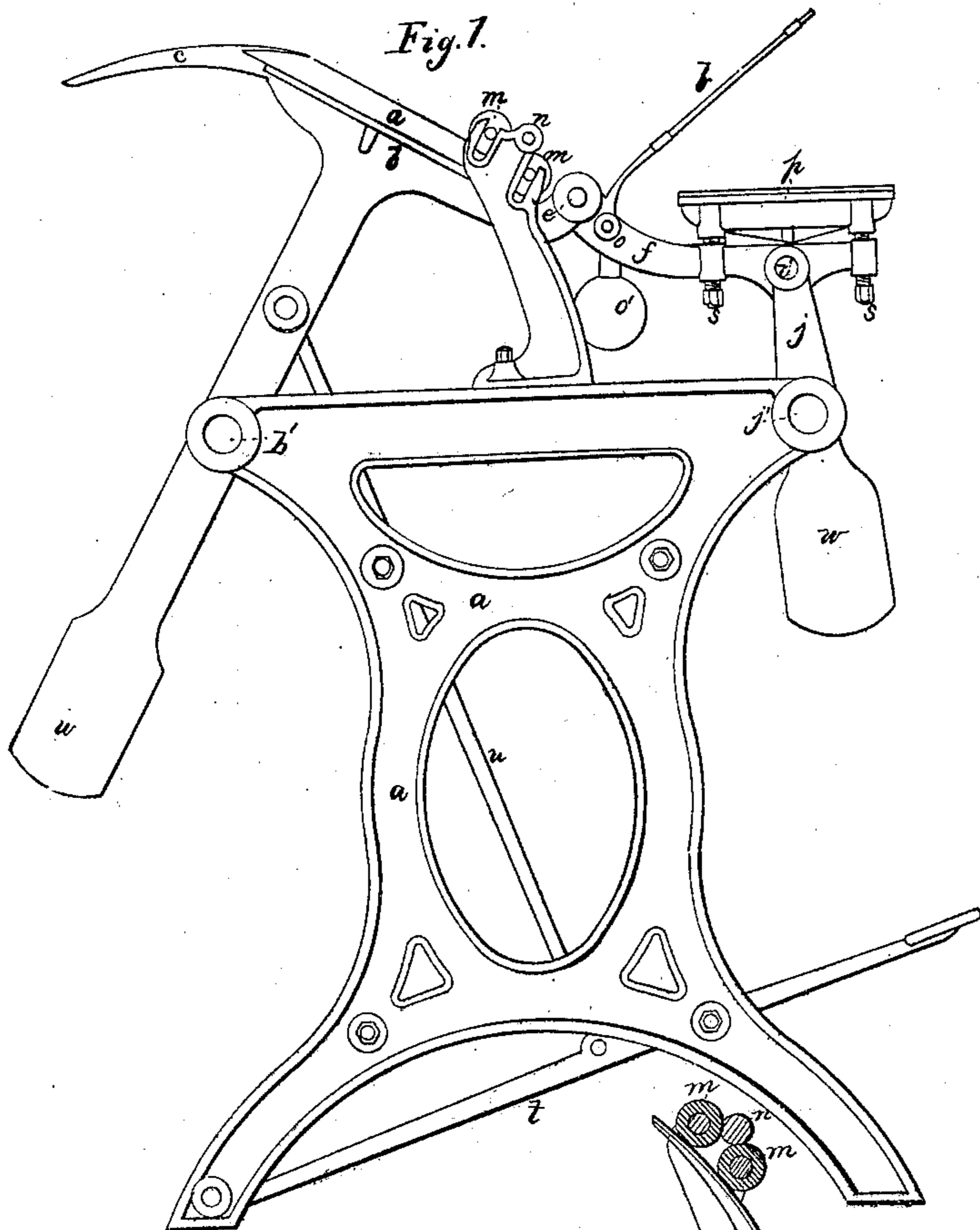


Fig. 3.

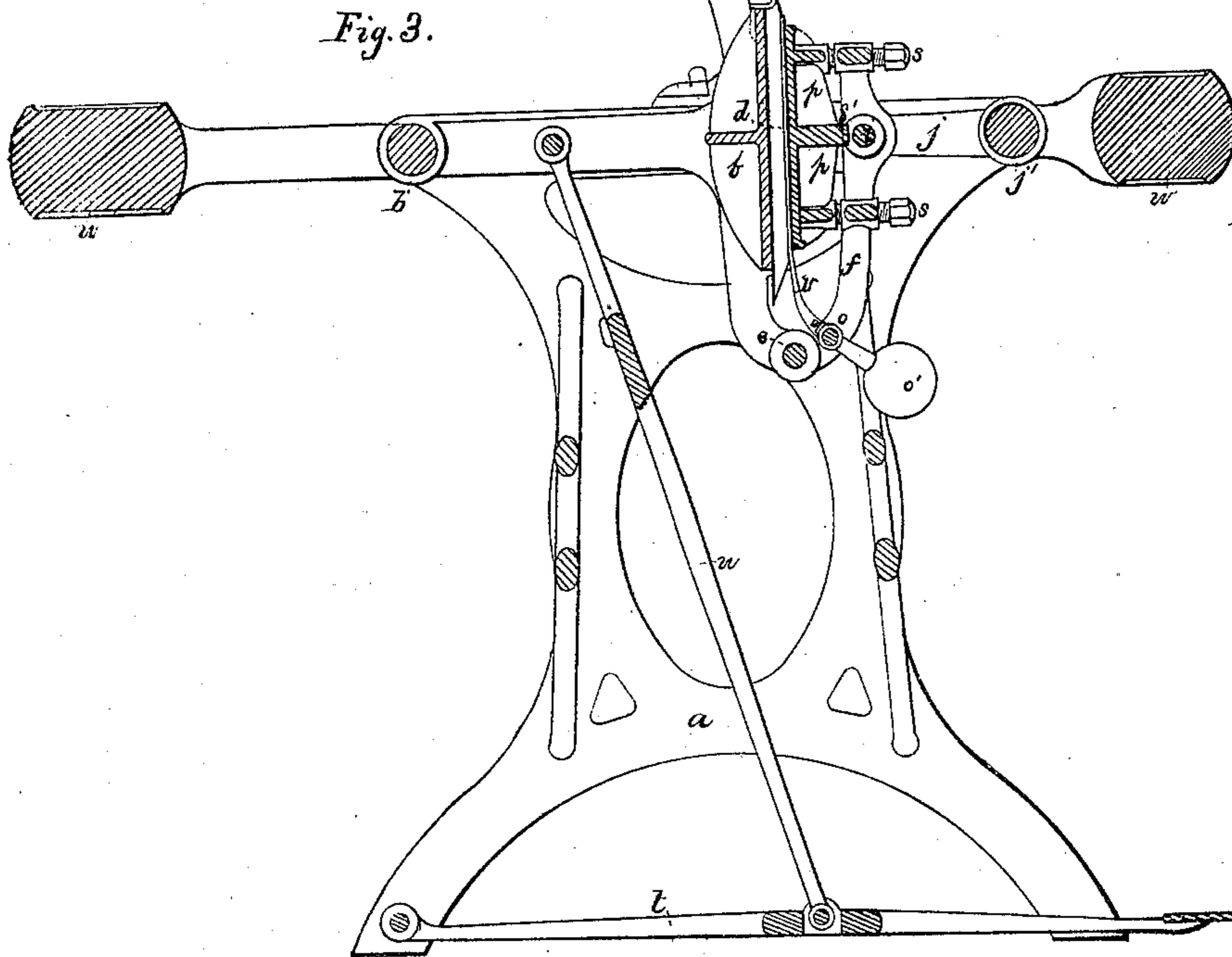


Fig. 4.

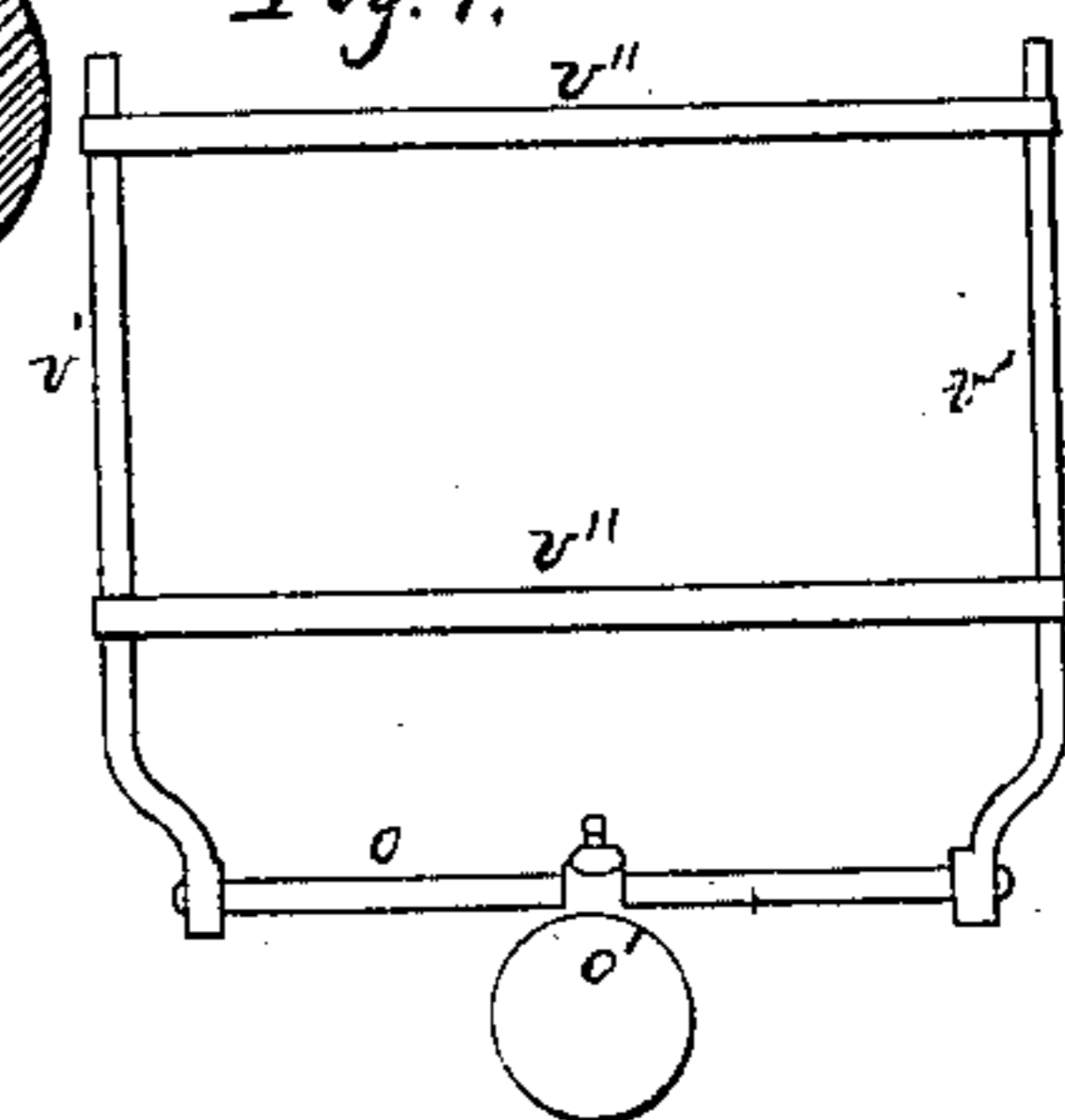
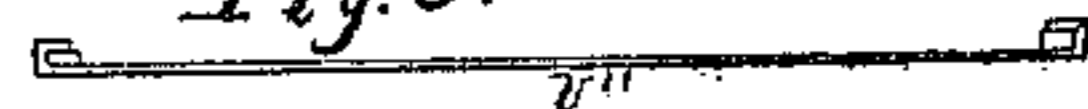


Fig. 5.



UNITED STATES PATENT OFFICE.

G. H. BABCOCK, OF WESTERLY, RHODE ISLAND.

PRINTING-PRESS.

Specification of Letters Patent No. 16,263, dated December 23, 1856.

To all whom it may concern:

Be it known that I, G. H. BABCOCK, of Westerly, in the county of Washington and State of Rhode Island, have invented certain Improvements in Printing-Presses; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, Fig. 2 an end view, Fig. 3 a vertical section showing the parts in the position for giving the impression, and Figs. 4 and 5 detached views of the frisket.

The principal feature of my invention consists in so jointing and combining the bed and platen of the press that one movement of the bed performs all the operations of printing, namely: distributing the ink, inking the form, conveying the sheet to the type, and giving the impression; thereby greatly simplifying the press, reducing its cost, and increasing its convenience and efficiency.

My improved press may be described as follows:—Within a frame, *a*, made of suitable material and shape, is hung a bed, *b*, by the shaft, *b'*, to which it is rigidly attached, and around which it is free to oscillate. At the upper side of this bed is attached a segment, *c*, which serves as an ink distributor. At each end of the bed is placed a piece, *d*, which is type high and serves as a bearer for the inking rollers to run on while inking the type which are placed upon the bed *b*. At a point, *e*,—in the plane of the bearers extended—is hinged by means of arms cast upon the bed, a frame, *f*, supporting the platen, *p*, which is made adjustable—for the purpose of altering the impression—by means of set-screws, *s*, and spring *s'*. The frame, *f*, is attached by the joint, *i*, to arms, *j*, upon shaft, *j'*, which has bearings in the frame. The arrangement and purpose of this combination are such that when the points, *b'*, *i*, and *j'*, are coming into a straight line, as in Fig. 3, the standards supporting the bed, and the arms, *j*, form progressive levers for the purpose of giving the impression; but when the bed recedes to the position shown in Fig. 1, the platen *p*, assumes a horizontal position to allow the printed sheet to be removed and a blank substituted. The inking rollers, *m*, *m*, are placed in such a position as to allow the bed with the form to pass back and

forth under them during each movement. As the segment, *c*,—being farther from its center, *b'* than any part of the type—passes under them they are raised and come in contact with the roller, *n*, which is made to vibrate laterally by means of a screw cut upon one of its bearings. By this arrangement I am enabled to give the ink a thorough distribution with a comparatively short distributing surface, and at the same time allow the rollers *m*, *m*, to ink the form with perfect freedom, which they could not do while rolling in contact with the roller, *n*.

There is a shaft, *o*, hung in the frame, *f*, upon which is hung the frisket, *v*. This frisket consists of two arms, *v'*, (see Figs. 4 and 5) across which are placed two springs, *v''*, which are made adjustable for the purpose of clamping different sized sheets. Upon the shaft, *o*, is a weight, *o'*, placed at an angle of about 130° to the frisket. This weight is for the purpose of operating the frisket, opening it when the platen rises and shutting it as it descends to the impression, being set at such an angle as to close it before the platen assumes a vertical position.

The bed receives its motion from which all others are derived—from a treadle, *t*, by means of a connection, *u*, being carried back by the counter weights, *w*, *w*, or it can receive its motion direct from the crank.

The mode of operation is as follows:—The blank sheet being placed upon the platen, *p*, as the treadle, *t*, is forced down, the form upon bed, *b*, passes under the inking rollers and receives a supply of ink; the frisket closes down upon the sheet, holding it in place firmly; and when the bed assumes a perpendicular position as shown in Fig. 3, the sheet and type are pressed into contact thus giving the impression. Upon the force being removed from the treadle the counter weights, *w*, *w*, carry the parts back to the first position when another sheet is substituted and the same process repeated.

It is not necessary for the success of my invention that the line which connects the centers of the shafts, *b'*, and *j'*, should be horizontal, as I also intend to make it vertical, in which case I intended to attach grippers to the frisket for the purpose of taking the sheet direct from a feeding table.

Having thus fully described my improvements, what I claim as new and desire to secure by Letters Patent is:—

1. Attaching the bed and platen together

by means of the joint, *e*, or its equivalent, when each is made to oscillate from a fixed center, substantially in the manner set forth.

2. I also claim giving an impression by
5 means of the joint oscillation of the bed and platen substantially as specified.

3. I also claim operating the frisket by

means of the weight, *o'*, or its equivalent in combination with the motion of the platen, substantially in the manner described.

G. H. BABCOCK.

Witnesses:

S. WILCOX, Jr.,

A. M. BABCOCK.