

C. ELLERY.  
Collating Attachment for Printing-Presses.  
No. 226,604. Patented April 20, 1880.

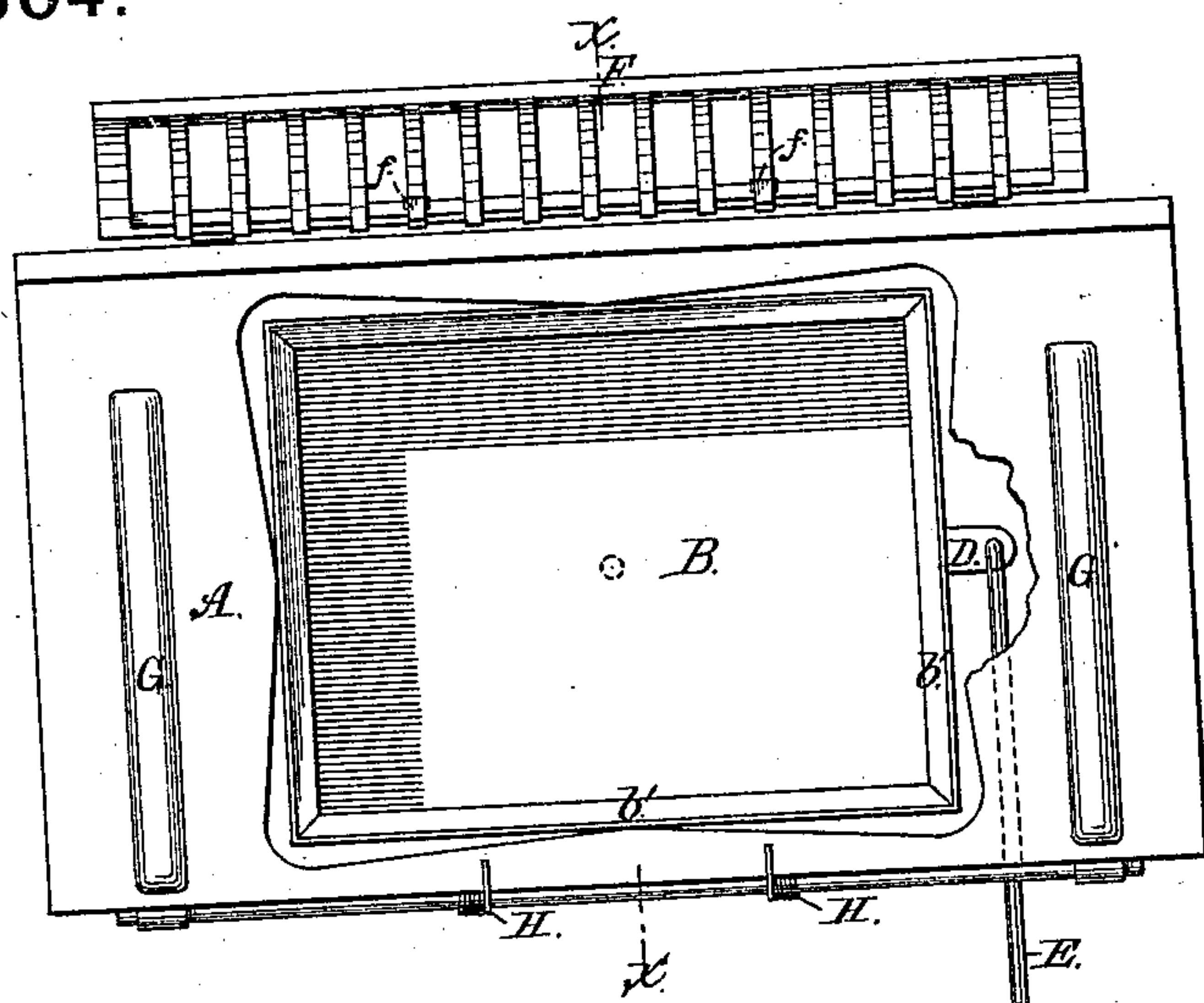


FIG. 1.

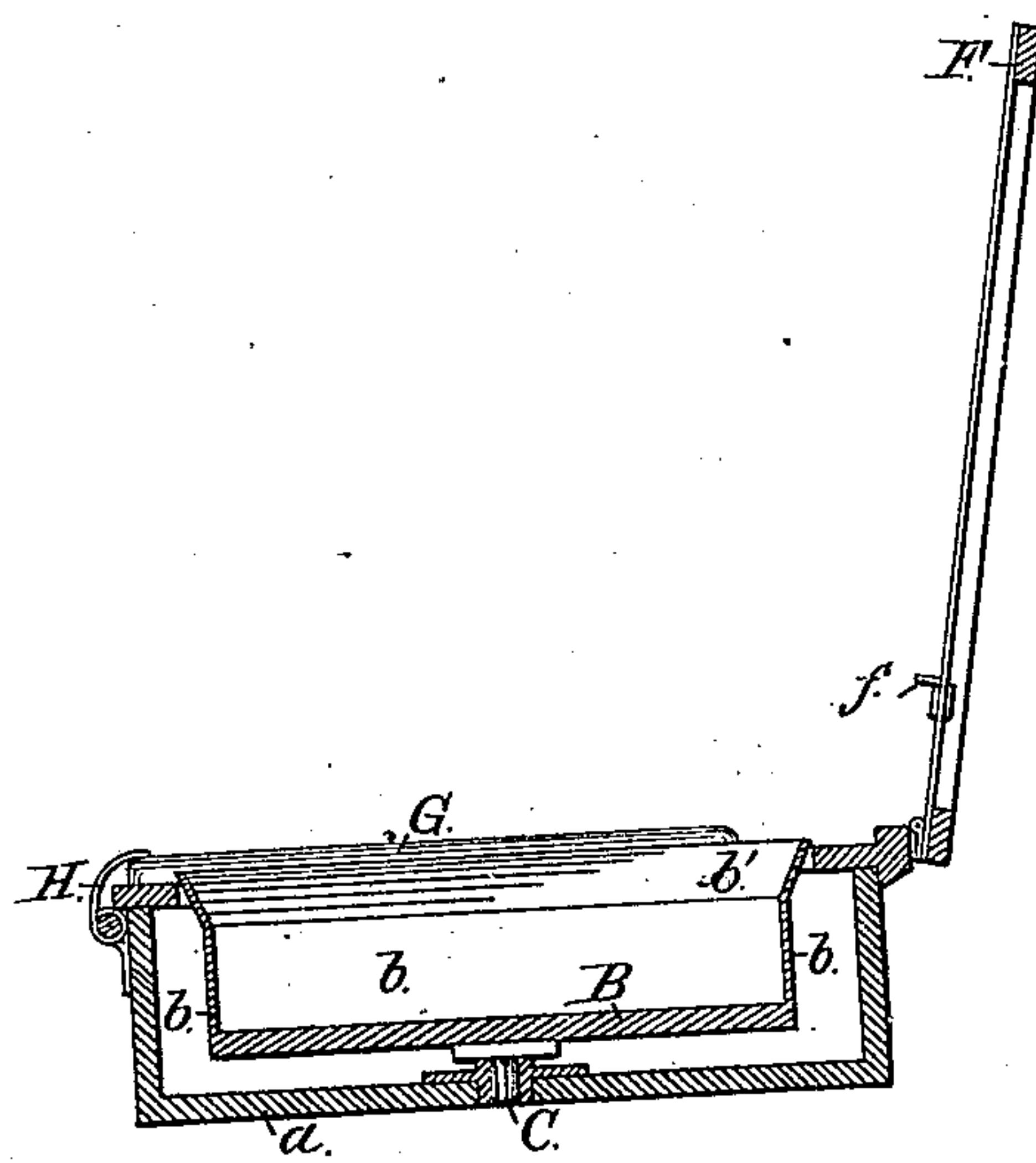


FIG. 2.

Witnesses,

E. J. Benham,

H. V. Scattergood.

Inventor,

CHARLES ELLERY,

by

William H. Low,  
Attorney.

# UNITED STATES PATENT OFFICE.

CHARLES ELLERY, OF ALBANY, NEW YORK.

## COLLATING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 226,604, dated April 20, 1880.

Application filed November 1, 1879.

*To all whom it may concern:*

Be it known that I, CHARLES ELLERY, of the city and county of Albany, and State of New York, have invented certain new and useful Improvements in Collating Attachments for Printing-Presses, &c., of which the following is a full and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—  
10 Figure 1 is a plan view of my device, and Fig. 2 a transverse section of the same at the line *xx* of Fig. 1.

My invention consists of the mechanism herein shown and described, for the purpose of receiving and evenly piling the sheets of paper as they are delivered from a printing-press, paper-machine, &c.

As shown in the drawings, A is the platform or bed of the device; B, a vibrating paper-holder inserted in an opening in the platform A, which should be cut so as to permit the paper-holder to move freely. Said paper-holder has a quick vibratory movement in a horizontal plane on the center-pin C, which is secured to the bottom of the paper-holder and works in a bearing fixed in the cross-bar *a* beneath the platform. Said paper-holder is made in the form of a pan, whose sides I preferably make of sheet metal. The lower part or pit, *b*, is made to conform to the size of the sheets it is to contain, and the upper part, *b'*, has a flaring form, as shown in the drawings, for the purpose hereinafter set forth.

An arm, D, is secured to the paper-holder beneath the platform A, which in Fig. 1 is broken away, so as to exhibit the arm. Said arm is connected, by means of a rod, E, to any suitable revolving or vibrating part of the press to which the device is applied, for the purpose of imparting a vibratory motion to the paper-holder.

A fly, F, of the form commonly used on printing-presses for receiving and laying off the sheets delivered by the tapes, is hinged to one side of the platform A, and is vibrated on its hinges in the usual manner by a movement derived from the press.

Stops *f* are attached to the slats of the fly for the purpose of stopping all the sheets of paper at a uniform place.

Cushions G are fixed to the platform for the

purpose of receiving the impact of the fly as it is thrown over on the platform, and the springs H are also attached to the platform for the purpose of aiding the cushions in performing their function.

My device is designed to be arranged in relation to a printing-press in such manner that the sheets of paper that are carried out of the press by the tapes will be delivered on the fly in the usual manner.

When the press is in motion, so as to impart the required movements to the paper-holder B and fly F, as hereinbefore described, each sheet of paper brought out of the press by the tapes slides down the face of the fly until its lower edge rests upon the stops *f*. The fly is then thrown over on its hinges until its face strikes the cushions G, thereby producing a slight shock that aids in dislodging the sheet from the face of the fly, so that it will fall into the paper-holder B.

If the sheet in dropping from the fly falls squarely into the lower part, *b*, of the paper-holder, it will need no further manipulation; but if it falls so that any part of its edges rests upon the flaring part *b'*, the vibratory motion of the holder shakes the sheet down into the bottom or pit of the holder, and as it moves down the flare on the sides of the part *b'* causes the sheet to shift its position so that it will squarely enter the bottom part of the holder and be deposited in its place on the pile, so that its edges will be even with those of the other sheets and the pile will be laid up true and square and in perfect condition for refeeding to the press.

My invention supplies a want that has long existed in conjunction with automatic paper-feeding devices, which have heretofore been practically useless, for the reason that the sheets delivered from the press, after being printed on one side, have been piled by the fly so unevenly that the cost of labor for squaring the pile of sheets to bring them into a proper condition for the operation of the feeding device was fully equal to the cost of feeding the sheets by hand.

My improvement can also be readily applied to use for collating sheets of paper delivered from paper-machines and other machines of a similar kind.



I claim as my invention—

1. The paper-holder B, having its lower part or pit, *b*, made with vertical sides, and an upper part, *b'*, made in a flaring form, the whole  
5 working with a vibratory movement, as herein described, in combination with the fly F, arranged to deliver the sheets of paper into the holder B, as herein specified.
2. The combination of the platform A, pro-

vided with the cushions G and the fly F, with  
a vibratory paper-holder, B, having flaring  
sides *b'*, as herein described, and for the purpose specified.

CHARLES ELLERY.

Witnesses:

WILLIAM H. LOW,  
E. F. BENHAM.