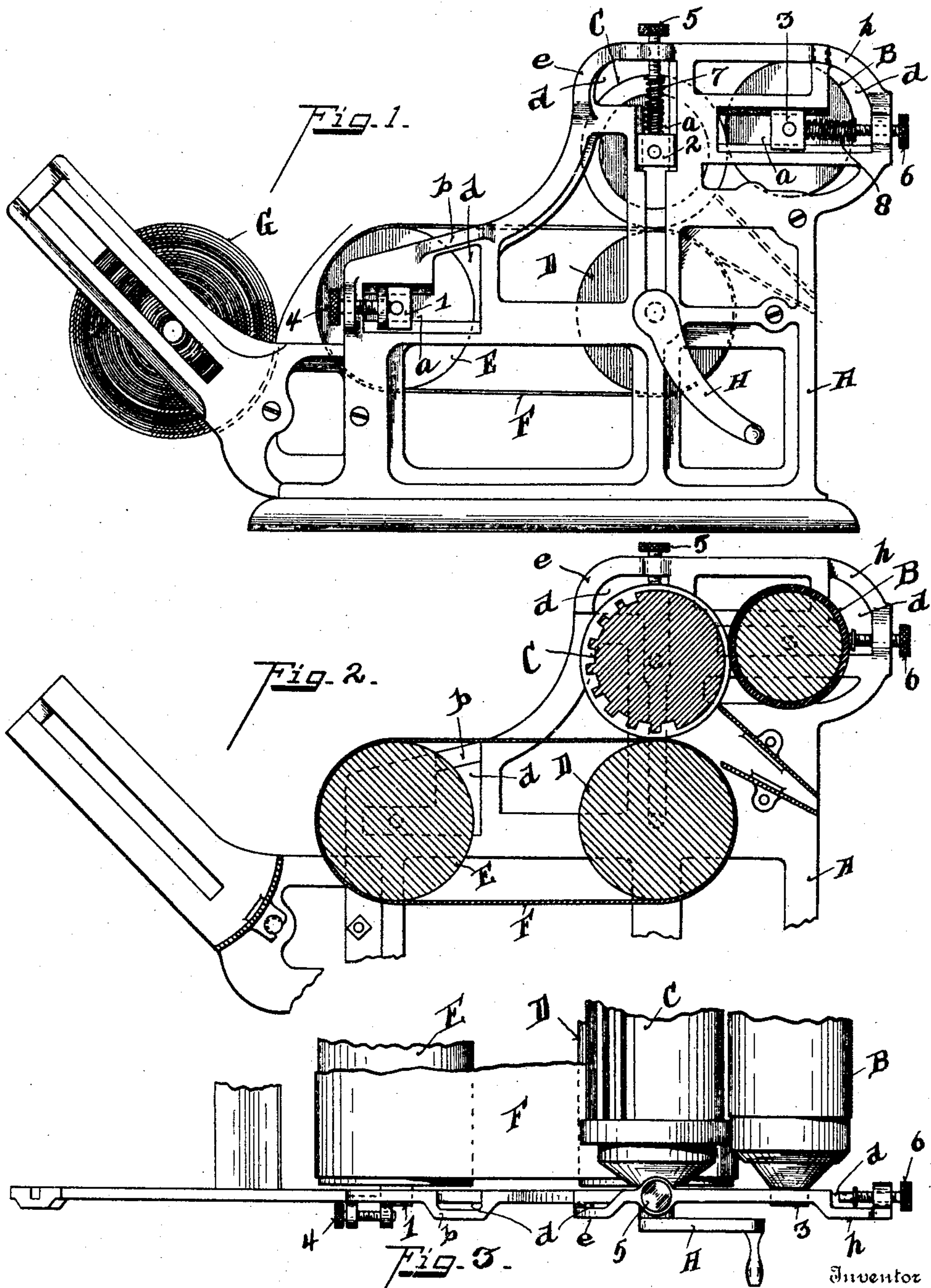


No. 771,900.

PATENTED OCT. 11, 1904.

T. C. FINCH.  
HAND PRINTING MACHINE.  
APPLICATION FILED MAR. 21, 1904.

NO MODEL.



Witnesses

Oliver B. Kaiser  
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# UNITED STATES PATENT OFFICE.

THOMAS C. FINCH, OF MADISONVILLE, OHIO, ASSIGNOR TO THE AUTOMATIC PRINTING MACHINE COMPANY, OF CINCINNATI, OHIO, A CORPORATION.

## HAND PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 771,900, dated October 11, 1904.

Application filed March 21, 1904. Serial No. 199,214. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS C. FINCH, a citizen of the United States, residing at Madisonville, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Hand Printing-Machines, of which the following is a specification.

My invention relates to a hand printing-press.

The features of my invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of my hand printing-press. Fig. 2 is a central vertical section of the same. Fig. 3 is a top plan view of the same, illustrating one side of the frame.

A represents the skeleton frame. B represents the inking-roller journaled therein. C represents the type-roller journaled in the frame contacting the inking-roller. D represents the platen-roller. E represents a belt-roller. F represents an endless carrier passing over rollers D E. G represents a roll of paper in the rear of roller E, the paper being adapted to be fed upon a belt F and so carried under the type-wheel. H represents a crank-handle fixed to the axis of the roller D. In order to conveniently support these rollers in a frame so that they are readily removable and insertible, I provide the following devices: 1, 2, and 3 represent journal-boxes for the axes of the rollers E, C, and B, respectively. These boxes have the adjustment-screws 4, 5, and 6 and the tension-springs 7 and 8. For each end of each roller the skeleton frame is provided with the internal guideways *a*, fitted to receive the adjustable journal-boxes 1, 2, and 3. In order to slide the journal-boxes into these guideways *a*, each guideway is provided with a second guideway *d*, wider than the journal-box and adapted to admit of the ready insertion or removal of the journal-boxes. It will be observed that the ribbed portions *b e h*, which form the guideways *d*, are widened or flared, which facilitates the ready separation or insertion of the rollers, with their journal-boxes, relative to the skeleton frame.

It will be seen that the roll of paper G

is wound on an axis that is supported in inclined guideways, so that the weight of the roll keeps it in contact with the concave shelf under the roll, and hence automatically furnishing a frictional contact to prevent the paper from running off of the roll too freely when the unwinding strain is placed upon it.

As the driving or pulling element of paper is the crank H of roll D and as the printing is done upon the endless belt, it is necessary that the belt-carrier E be adjustable to and from the driving-roller D, so as to keep the endless belt taut and to preserve a smooth surface on which to print. Hence the slidable journal-boxes are an essential feature, and these boxes must work in guides and the frame portion cut away, so as to allow the ready removability of the roll. The cut-away portion *d* being at the inner end of the guideway toward roller D allows the journal-boxes to be moved inward far enough to slack the endless belt, but not to remove the roller.

The type-roller has to be frequently changed or taken out for the insertion of a new roller or a new type. Hence the cut-away portion is in the front of the frame and away from the inking-roller, allowing sufficient space for the journal-boxes to be moved into the forward cut-away portion. By this means the inking-roller can be readily renewed and adjusted to the exact position, the carrier-belt can be readily renewed, and the perfect coöperative adjustment of all of the parts can readily be obtained.

The paper is drawn off by hand from the roller G, carried over the endless belt F, and held against the same while the operator turns the handle H and draws the paper on the belt between the platen and inking-roller. The slidable boxes of the printing-roll of the carrier-roll are then adjusted so as to obtain the requisite tautness and friction. By this means uniform printing is readily obtained and the machine quickly adjusted to the thickness and texture of the paper to be printed.

Having described my invention, I claim—

1. In a hand printing-machine, an inking-roller, a contacting type-roller and a carrier-roller respectively mounted on sliding journals, a platen-roller, an endless carrier-belt



connecting the last two named rollers, the belt on the platen-roller frictionally engaging the type-roller, a paper-roll mounted in inclined guides in front of the carrier-roll, and  
5 a crank-handle on the platen-roller, substantially as described.

2. In a hand printing-machine, a skeleton frame, guideways for slidable journal-boxes adjustably mounted therein, an inking-roller,  
10 a type-roller and a carrier-roller respectively journaled in the slidable boxes, a platen-roller supported in fixed journals, an endless belt connecting the said platen and carrier roller, and a paper-roll mounted upon an axis  
15 in front of said carrier-roll, substantially as described.

3. In a hand printing-machine, a skeleton frame having ways formed therein and a cut-away portion at the end of each of said ways,  
20 adjustable and slidable journal-boxes mount-

ed in said ways, a carrier-roller, a printing-roller and an inking-roller respectively mounted in said slidable journal-boxes, a platen-roller and an endless belt supported on said carrier and platen roller, a handle on the  
25 platen-roller, substantially as described.

4. In a hand printing-machine, a skeleton frame, the ribs thereof having formed on the inside guideways for the reception of the inking, platen and carrier rollers, respectively,  
30 each guideway being formed integral in the frame with an enlarged opening at one end thereof and flared laterally, substantially as described.

In testimony whereof I have hereunto set  
my hand.

THOMAS C. FINCH.

Witnesses:

OLIVER B. KAISER,  
LEO O'DONNELL.