

(No Model.)

2 Sheets—Sheet 1.

T. C. DEXTER.

PAPER FOLDING ATTACHMENT FOR PRINTING PRESSES.

No. 369,780.

Patented Sept. 13, 1887.

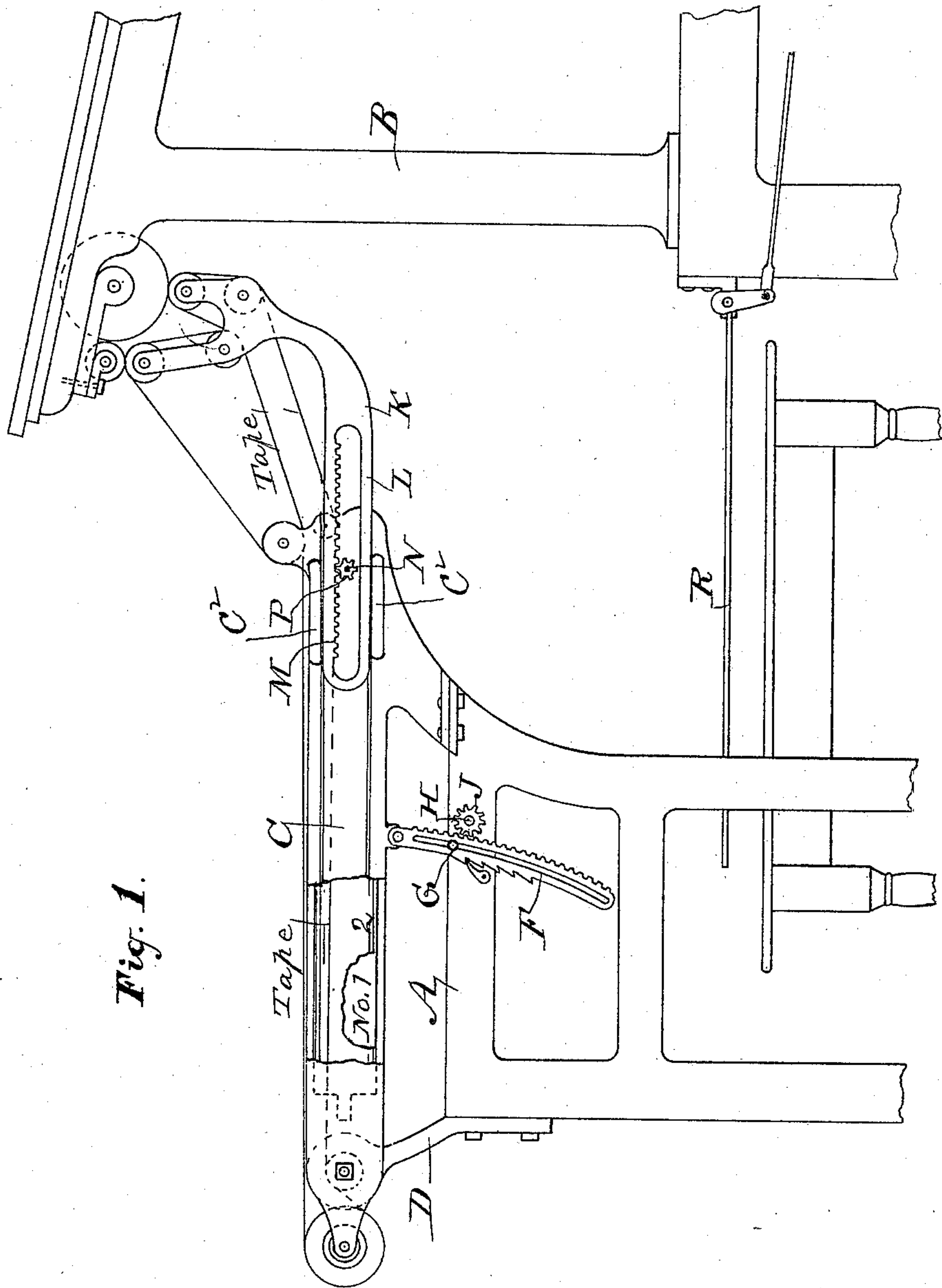


Fig. 1.

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Inventor:

Salbot C. Dexter,

By Thomas G. Orwig, Attorney.

(No Model.)

2 Sheets—Sheet 2.

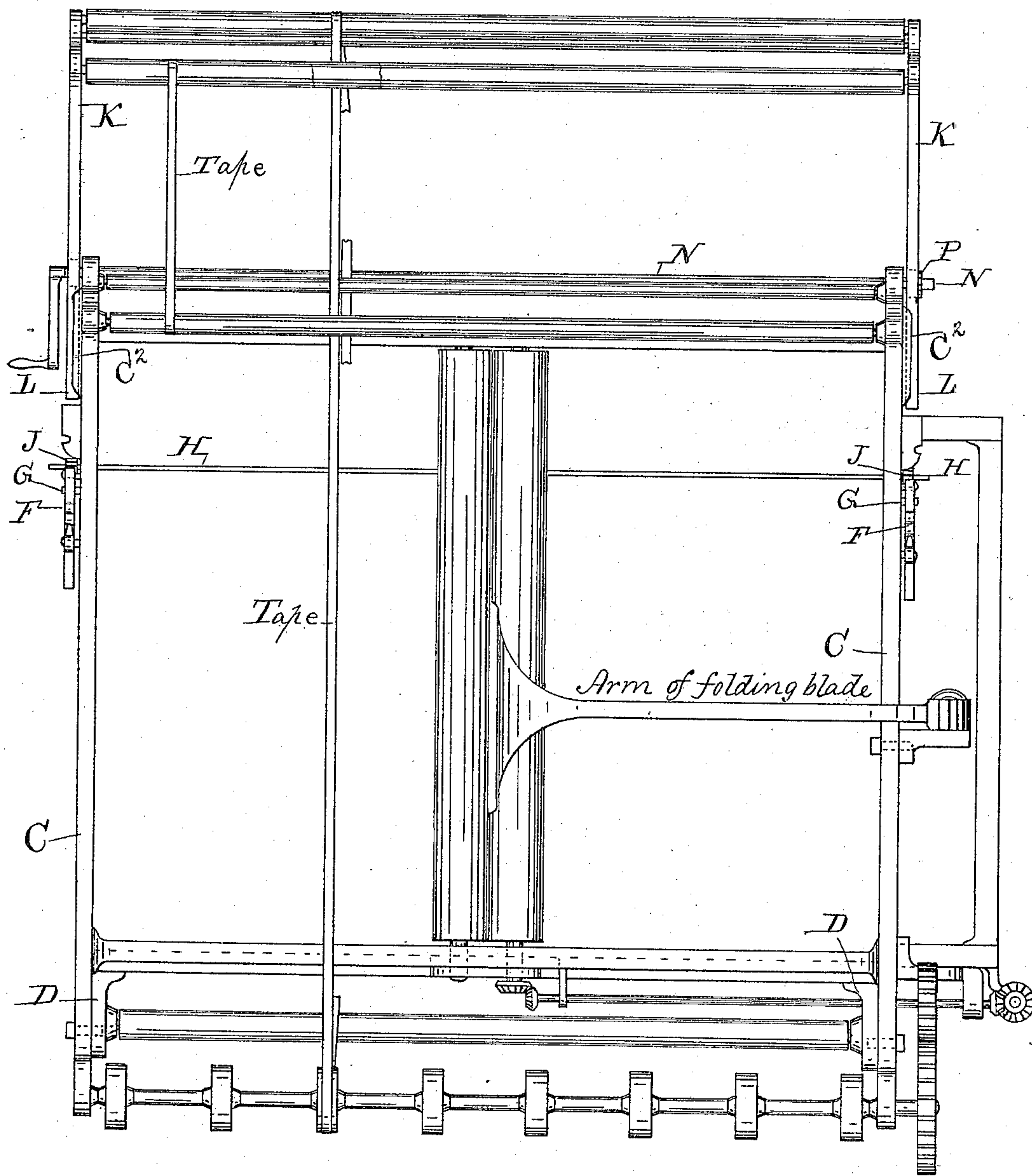
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Fig. 2



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UNITED STATES PATENT OFFICE.

TALBOT C. DEXTER, OF DES MOINES, IOWA.

PAPER-FOLDING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 369,780, dated September 13, 1887.

Application filed January 13, 1886. Serial No. 188,444. (No model.)

To all whom it may concern:

Be it known that I, TALBOT C. DEXTER, a citizen of the United States of America, and a resident of Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Improvement in Paper-Folding Attachments for Printing-Presses, of which the following is a specification.

My object now is to provide a sheet-carrying mechanism for a folding-machine that can be readily adjusted relative to a printing-press as required to carry printed sheets from the press to the folding mechanism, and subsequently readily disconnected and connected at pleasure with the sheet-delivering mechanism of a press without adjusting any roller to slacken tapes, and without removing the fly or receiving-table of a press, and without using a jointed frame and bending it to slacken tapes; and I accomplish the results contemplated by the construction and combination of a frame and racks adapted to carry a pair of paper-folding rollers and a frame and racks adapted to carry rollers and sheet-carrying tapes with a folding-machine, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my machine in position as required for practical use. Fig. 2 is a top view showing the hinged frame that carries the sliding frame, the sheet-carrying rollers and tapes, and a pair of folding-rollers, and also the gearing by means of which motion is imparted to the tapes and the folding-rollers.

A represents the frame of a folding-machine, and B a printing-press.

C is a frame carrying a pair of folding-rollers, hinged to the frame A, by means of brackets D, in such a manner that its free end will rest flat upon the opposite end of the frame A when in use.

1 and 2 are parallel folding-rollers in bearings formed in or attached to the frame.

Two curved and slotted racks, F, are pivoted to the opposite sides of the frame C, and pins G are fixed to the frame A to extend through the slots in the racks and to form bearings and guides to direct the vertical movements of the racks.

H is a shaft that has its bearings formed in

or fixed to the frame A, and that has pinions J at its opposite ends to engage the racks F in such a manner that when the shaft is rotated, by means of a crank applied to one of its ends, the racks and the free end of the frame C will be raised or lowered at the will of the operator.

K represents a sliding frame that is composed of two elbow-shaped side pieces, L, and suitable cross-pieces. The horizontal portion of each side piece has an internally-toothed slot or rack, M, and the vertical portion a forked end adapted to support rollers and tapes. Flanges or bearings C², integral with the outside faces of the sides of the hinged frame C, support the sides L of the sliding frame K.

N is a shaft extended through bearings formed in or fixed to the frame C in such a manner that pinions P, fixed to the shaft, will engage the racks M, so that when the shaft is rotated by means of a crank applied to one of its ends the complete frame K and its attachments can be readily moved backward or forward, relative to the press and the folder, at the will of the operator.

Rollers and tapes applied to the frames C and K, as indicated, or in any suitable way, and connected with the driving mechanism of the folding-machine and press, will, when properly adjusted and connected with the sheet-delivering mechanism of the press, carry the printed sheets from the press and place them across folding-rollers mounted in the frame C, as required, to make a central fold in each sheet in a common way.

R represents the fly of a printing-press underneath my sheet-carrying device, that is shown in position as required to carry sheets from the press to the folder. To adjust my device as required to prevent it from interfering with the operations of the fly, I first rotate the shaft N, and thereby slide the frame K away from under the sheet-delivering mechanism of the press, and then rotate the shaft H to elevate the combined frames C and K above the arc described by the motion of the fly and indicated by dotted lines.

I claim as my invention—

1. The hinged frame C, carrying rollers and tapes, the slotted racks F, the shaft H, having

fixed pinions J, and the fixed pins G, in combination with a paper-folding machine, for the purposes stated.

2. A sheet-carrying device for paper-folding machines, comprising a frame carrying a pair of folding-rollers and sheet-delivering tapes, and hinged to the top of the folding-machine frame, a sliding frame carrying sheet-moving rollers, and tapes attached to the free end of the hinged frame, to operate in the manner set forth, for the purposes stated.

3. A sheet-carrying device comprising a hinged frame carrying a pair of folding-rollers and sheet-delivering tapes, mechanism, substantially as described, for raising and lowering the free end of said hinged frame, a sliding frame carrying sheet-moving rollers, and tapes attached to the free end of said

hinged frame, in combination, with a paper-folding machine, for the purposes stated.

4. The combination of a sheet-carrying device and frame hinged to the frame of a folding-machine, a pair of folding-rollers and a series of tapes carried by said hinged frame, a shaft, pinions, and racks for raising and lowering the free end of said hinged frame, a sliding frame carrying sheet-moving rollers and tapes, and a shaft, pinions, and racks for moving said sliding frame on said hinged frame, arranged and combined with a paper-folding machine and printing-press, to operate in the manner set forth, for the purposes stated.

TALBOT C. DEXTER.

Witnesses:

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