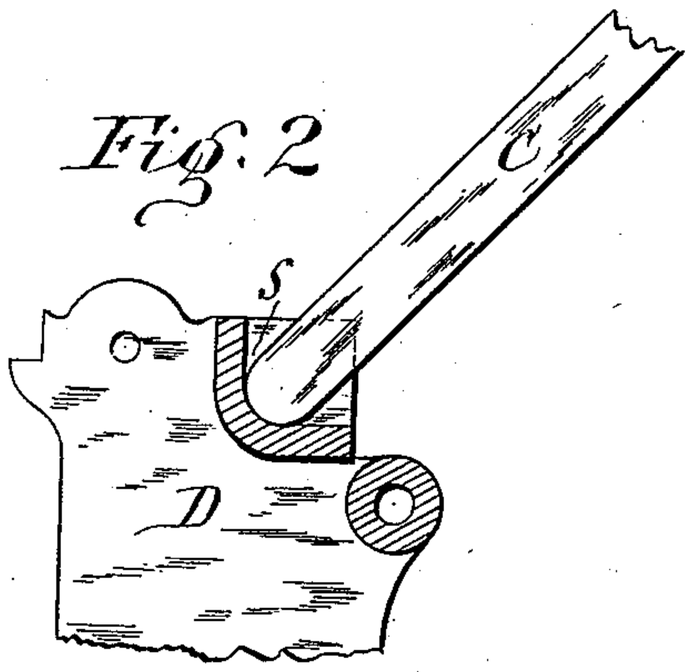
(No Model.) 2 Sheets—Sheet 1.

T. C. DEXTER.

PAPER FOLDING MACHINE ATTACHMENT FOR PRINTING PRESSES.

No. 506,392. Patented Oct. 10, 1893.

Fig. 2



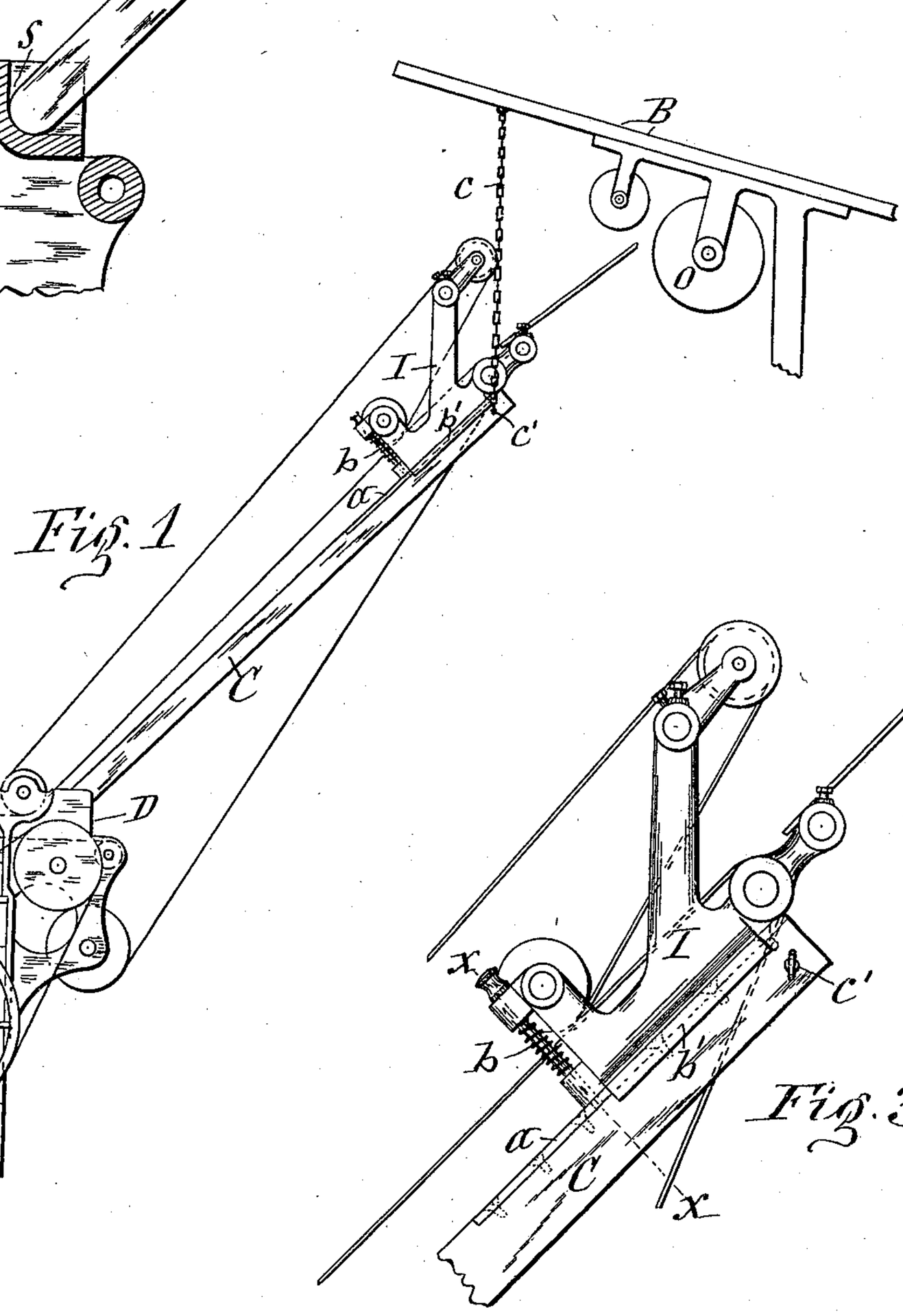


Fig. 1

Fig. 3

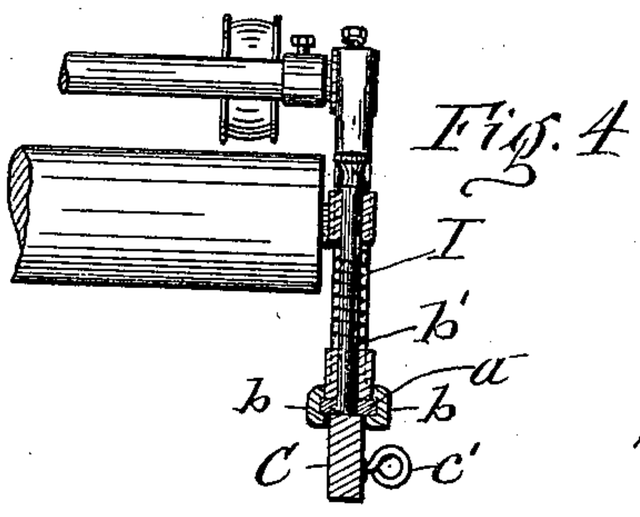


Fig. 4

WITNESSES:

J. J. Laass.

C. L. Bendixon

INVENTOR:

Talbott C. Dexter

By Dull, Laass & Dull

his ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2

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PAPER FOLDING MACHINE ATTACHMENT FOR PRINTING PRESSES.

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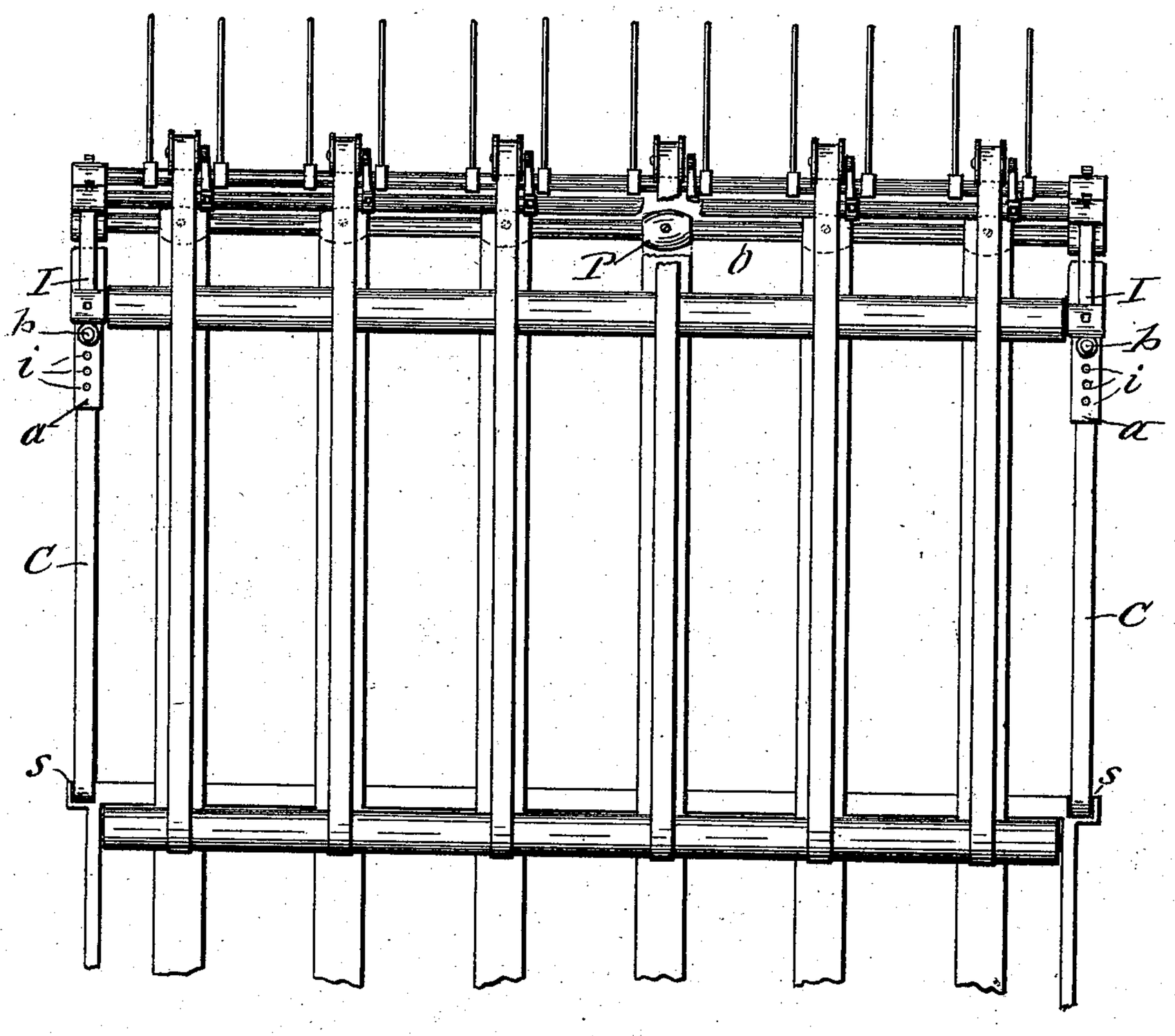

Fig. 5

WITNESSES:
J. J. Laass
C. L. Bendixon

INVENTOR:
Talbot C. Dexter
By Duell, Laass & Duell
his ATTORNEYS.

UNITED STATES PATENT OFFICE.

TALBOTT C. DEXTER, OF FULTON, NEW YORK, ASSIGNOR TO THE DEXTER FOLDER COMPANY, OF SAME PLACE.

PAPER-FOLDING-MACHINE ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 506,392, dated October 10, 1893.

Application filed November 28, 1892. Serial No. 453,329. (No model.)

To all whom it may concern:

Be it known that I, TALBOTT C. DEXTER, of Fulton, in the county of Oswego, in the State of New York, have invented new and useful Improvements in Paper-Folding-Machine Attachments for Printing-Presses, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates more particularly to the connection of the paper folding machine to the printing machine or press shown in my United States Letters Patent No. 461,422, dated October 20, 1891. In said prior devices I mounted the tape-carrying mechanism of the paper transferrer on a bridge composed of a series of boards extending from the paper-folding machine toward the delivery of the printing press and firmly united by transverse cleats. By practical experience with said bridge I found it objectionable for several reasons, viz: The bridge being composed of longitudinal slats which were interposed between the lower tapes interfered with the lateral adjustment of the tapes, the bridge was unwieldy to handle in placing the same in its desired position, and inasmuch as the bridge is always made of sufficient length to accommodate it to the maximum distance between the folding machine and printing machine said bridge has in the majority of cases to be cut off at the end to reduce its length in accordance with the reduced distance between the aforesaid machines and it required considerable time and labor to refit on the bridge the plates which are attached thereto with the tape carrying devices.

The object of my present invention is to obviate the aforesaid defects, and to that end it consists essentially in the substitution for the aforesaid bridge of two separate bars mounted on opposite sides of the top of folding machine-frame, to which bars are connected the brackets, which support the shafts and rollers of the paper-transferring devices, said bars being light and conveniently handled in placing them into their requisite positions, easily adjusted to the proper length, and leave the space between them free from obstructions to the travel and adjustment of the tapes.

The invention also consists in mounting longitudinally adjustable on the upper ends of the aforesaid bars, the brackets which support the paper transferring mechanism all as hereinafter more fully described and set forth in the claims.

The invention is fully illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of a paper transferring apparatus embodying my improvements. Fig. 2 is an enlarged sectional view of the seat of said apparatus on the folding machine. Fig. 3 is an enlarged side view of one of the brackets which support the paper transferring devices. Fig. 4 is a transverse section on line *x*, *x*, in Fig. 3; and Fig. 5 is a plan view of the paper transferring apparatus, one of the upper tapes being broken away to show the adjustable bearing for one of the lower tapes.

Similar letters of reference indicate corresponding parts.

A— represents the frame of a paper-folding machine, and —B— the feed-board of a printing machine or press.

C—C— denote the two separate bars which I substitute for the bridge shown in my prior patent hereinbefore referred to. These bars I preferably form with rounded lower ends by which they are stepped in correspondingly shaped sockets —*s*—*s*— in the metallic brackets —D—D— which are attached to the frame of the paper folding machine and support the lower tape-carrying rollers of the paper transferring apparatus. Said sockets maintain the lower ends of the bars —C—C— a uniform distance apart while the remaining portions of said bars are maintained parallel to each other merely by the tape carrying rollers and roller shafts supported by the upper ends of the bars, for which purpose I mount on the upper portions of said bars suitable brackets —I—I— provided with bearings for said rollers and shafts. The upper ends of the bars —C—C— may be hung on any suitable part of the printing machine, and by any suitable means which permit of a ready detachment of the bars, as for instance the chains —*c*—*c*— suspended from the feed-board —B— and hooked at their ends onto stud —*c'*—*c'*— projecting from the sides of the bars as repre-

sented in Fig. 1 of the drawings, or by means of similarly arranged straps as shown in my prior patent hereinbefore mentioned.

The brackets —I—I— are mounted longitudinally adjustable on the bars —C—C—, to the tops of each of which latter is fastened a metal strap —*a*— extending lengthwise thereof and projecting from the sides so as to form tongues or ways which are embraced by longitudinally grooved flanges —*b'*—*b'*— on the base of the bracket seated upon the strap —*a*— as shown more clearly in Figs. 3 and 4 of the drawings.

The strap —*a*— is provided with a series of sockets, —*i*—*i*— as shown in Fig. 5 of the drawings and to the bracket is connected a spring bolt —*b*— which engages one of said sockets and thereby retains the bracket in its elevated position on the bar.

In making the connection between the folding machine and printing press I cut the bars —C—C— to the requisite length and slip the brackets —I—I— onto the upper ends thereof, and step the lower ends of said bars in the sockets —*s*—*s*. I then place the bars in their requisite angle of inclination and adjust the brackets —I— to bring the paper conveying mechanism, which is supported on said brackets, in proper position in relation to the delivery cylinder —O— of the press. The bars are supported in their inclined position by the chains —*c*— or other suitable hangers.

Inasmuch as the space between the bars is only occupied by the tapes and their carrying rollers, said tapes are allowed to be shifted laterally to accommodate sheets of different widths and bring the tapes into proper position in relation to the line of travel of the paper. Said shifting of the tapes is readily effected by the hands of the person in charge of the machine, by simply shifting the tape-bearings —P— lengthwise on their supporting shaft —O—, and shifting said tapes correspondingly on their lower carrying rollers. When it is desired to dispense with the described paper transferring apparatus the brackets are readily released from the straps —*a*— by drawing out the spring bolts —*b*—, and can then be slipped down on the bars —C—C— to slacken the tapes, and allow the said bars to be lifted out of the sockets —*s*—, and disconnected from the suspenders —*c*—, and placed out of the way until again needed. The said paper-transferring apparatus is readily replaced between the folding machine and press by setting the bars —C—C— into the sockets —*s*— and connecting the upper ends of the bars to the suspenders —*c*— and then slipping the brackets —I— up to their requisite position on the bars.

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

1. In combination with the delivery end of a printing press and receiving end of a paper folding machine, separate bars seated removably on opposite sides of the folder-frame and hung detachably on the press-frame brackets mounted longitudinally adjustable on the upper ends of said bars, and paper-transferring mechanisms supported on said brackets and occupying exclusively the space between the bars as set forth.

2. In combination with the delivery end of a printing press and receiving end of a paper folding machine, the bars —C—C— seated removably on opposite sides of the folder-frame and hung detachably on the press-frame, the metallic strap —*a*— rigidly attached to said bars and provided with a series of sockets —*i*—*i*—, the brackets —I— seated movable longitudinally on said straps, the spring-bolts —*b*— connected to said brackets and adapted to enter the aforesaid sockets, and paper-transferring mechanism supported on said brackets as set forth.

In testimony whereof I have hereunto signed my name this 5th day of November, 1892.

TALBOTT C. DEXTER. [L. S.]

Witnesses:
H. M. SEAMANS,
J. J. LAASS.