

(No Model.)

2 Sheets—Sheet 1.

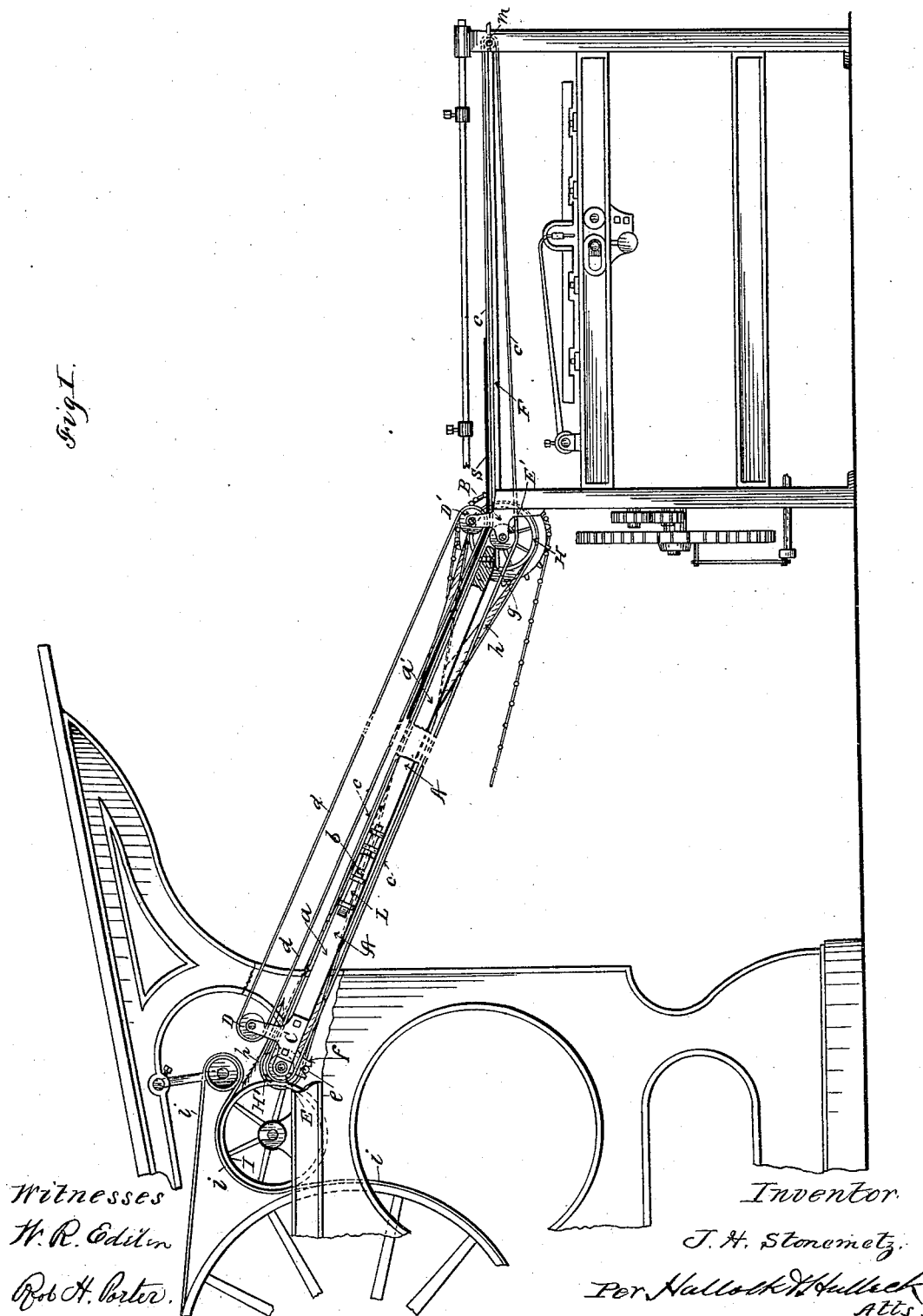
J. H. STONEMETZ.

SHEET CONVEYER DEVICE BETWEEN PRINTING AND FOLDING MACHINES.

No. 343,677.

Patented June 15, 1886.

Fig 1.



Witnesses
H. R. Edlin
Robt. H. Porter.

Inventor.
J. H. Stonemetz.
Per Hallowell H. Hulbeck
Atts

(No Model.)

2 Sheets—Sheet 2.

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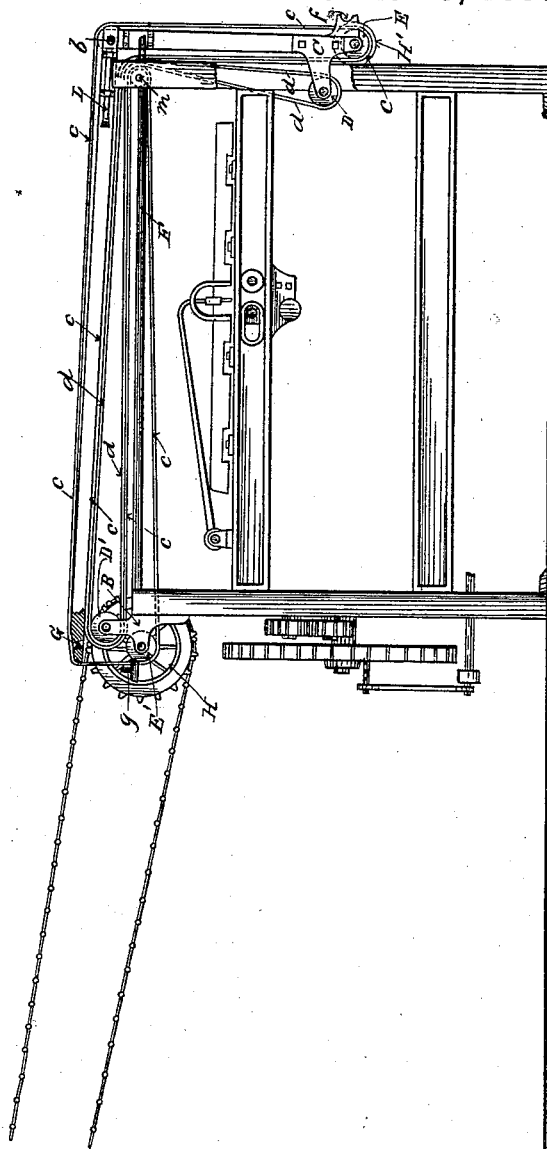


Fig. 2.

Witnesses

W. R. Edelen

Robt A. Carter

Inventor

J. H. Stonemetz

Per Hallock & Hall
attys

UNITED STATES PATENT OFFICE.

JOHN H. STONEMETZ, OF ERIE, PENNSYLVANIA.

SHEET-CONVEYER DEVICE BETWEEN PRINTING AND FOLDING MACHINES.

SPECIFICATION forming part of Letters Patent No. 343,677, dated June 15, 1886.

Application filed March 14, 1883. Serial No. 88,069. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STONEMETZ, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful improvements in devices for connecting and operating paper-folding machines in connection with printing-presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to means for connecting paper-folding machines to printing-presses, so that they can be operated therefrom, and will receive the papers when printed, and fold them as they come from the press. When the printing-press does not perfect the paper at one operation, it is necessary to run off the sheets after the first impression upon a table; but after the second impression they can go to the folder direct from the press. In order to do this, the folder must be provided with means whereby it can be connected with and operated from the press at pleasure, so that when the first impression is being taken the folder will not be connected with the press, and when the second impression is being printed the folder will be connected with the press, and will receive the papers directly as they leave the press. The means for forming this connection should be so devised that the folder will not have to be moved, and also so that the folder will, when not in connection, stand far enough from the press to allow a table to stand between it and the press to receive the sheets after the first impression. To do this, it will be seen the means by which the two machines are connected must, when the machines are so connected, span the space between them, and when not in use must be removed, so as to allow the fly to throw the sheets from the press to the receiving-table when the first impression is being made. When the machines are running together, the fly must be thrown out of gear or disconnected.

This invention consists in providing means for so connecting the press and folder as to attain the results above named, and has nothing whatever to do with the construction of either the press or the folder.

The accompanying drawings illustrate the invention, as follows:

Figure 1 is a side view of the rear portion of a press and a folder, and shows the means for connecting the two machines. Fig. 2 is a like view showing the two machines disconnected and the connecting device thrown back upon the folder out of the way.

The device for connecting the two machines consists of a table or frame, A, formed of two parts, *a a'*, which are jointed together at *b* by any suitable hinge, as shown. The meeting parts are indented and interlocked, and a rod, *b*, passed through the interlocking "fingers," as will be seen best in Fig. 2. A bolt, L, on the sides of the table, holds the two parts from turning on their hinge when set up as in Fig. 1. The upper end of the table is provided with a notched bracket, *f*, which engages with a rod, *e*, which passes across the frame of the press. The lower end of the table is provided with a hole or holes, G, which set over pins *g* on a bracket on the side or front of the folder. This table or frame, when so adjusted, bridges the space between the folder and the press.

On the side of the folder next to the press is arranged its driving-shaft E', which is driven by a sprocket-chain or other belt from the press. On this shaft, at one side of the table A, is mounted a pulley, H, from which a cross-belt, *h*, runs to a pulley, H', at the upper end of the table, where it is mounted on a roller, E, which lies along the upper end of the table. The shaft E' is also a roller, and tapes *c* run around the roller E on the upper end of the table A and the roller *m* on the far side of the folder, and pass under the rollers E' and D' on the near side of the folder. Other tapes run on the rollers D D' and lie on top of the sheets, keeping them in place as they pass down the inclined table on top of the tapes *c*.

S represents the sheet just passing down onto the folder.

The arrow at the upper end of the table A shows the manner in which the sheets are received upon the connecting-table A.

Heretofore the connection between the folder and the press, when said machines were arranged relatively as shown, has been made by tapes only, which have had to be unbuckled or unlaced when disconnection was desired.

With this device the tapes do not have to be disturbed at all when disconnection takes place. The belt *h* and the drive-belt or driving-gearing only are disturbed when the machines are disconnected.

The operation of changing the table from the position shown in Fig. 1 to that shown in Fig. 2 is as follows: The bolt *L* is withdrawn, and the sections of the table or frame can turn on their hinge *b*. The attendant holds the table, but allows it to sag down at the hinge, and lifts the section *a* up, so that it will stand nearly or quite at a right angle to the part *a'*. This allows the frame to pass out from under the overhanging part of the press. The whole frame is then lifted over and let down onto the folder in the position shown in Fig. 2.

I do not desire to be limited to any particular construction of the table or frame *A*. It may be strictly a frame-work or a table.

The essential feature of the invention consists in providing a frame-work or table, or other structure other than simple tapes, which will connect the folder with the press, and which may be disconnected when it is not desired to run the two machines together.

The connecting device might be fixed to the press and be made extensible toward the folder, but in most cases it would interfere with the operation of the fly; hence it is better to put it on the folder, as shown.

What I claim as new is—

1. The combination, with a printing-press and a folding-machine, of a frame or table bearing sheet-conveying devices spanning the space between said machines and adapted to be laid back upon the folding-machine, substantially as and for the purpose set forth.

2. The combination, with a printing-press and a paper-folding machine, which are arranged with relation to each other substan-

tially as shown, of a table or frame, *A*, consisting of two sections, *a a'*, hinged together and bearing conveying-tapes and tape-actuating rollers, which are operatively connected with the folding-machine, which frame is adapted, as shown, to span the space between said machines, when desired, and convey the printed sheets to the folder from the press, and when communication between said machines is not desired can be folded back over the folder, as shown, and for the purposes mentioned.

3. The combination, with a printing-press and a paper-folding machine, which are arranged with relation to each other substantially as shown, of the frame or table *A*, composed of the jointed sections *a a'*, the rollers *D* and *E* at the upper end of said frame, the rollers *D'* and *E'* on the folder near the lower end of said frame, the pulleys *H H'* and belt *h*, and the tapes *c* and *d*, substantially as and for the purposes set forth.

4. The combination, with a folding-machine, of a frame or table bearing sheet-conveying devices and operatively connected with said machine, and adapted to be placed between the folding-machine and a printing-press, and removed from the printing-press when not in use, substantially as and for the purpose set forth.

5. The combination, with a printing-press and a folding-machine, of a frame composed of jointed sections, rollers on said frame and on the folding-machine supporting endless sheet-conveying tapes, and mechanism, substantially as described, for driving said tapes, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. STONEMETZ.

Witnesses:

JNO. K. HALLOCK,
ROBT. H. PORTER.