

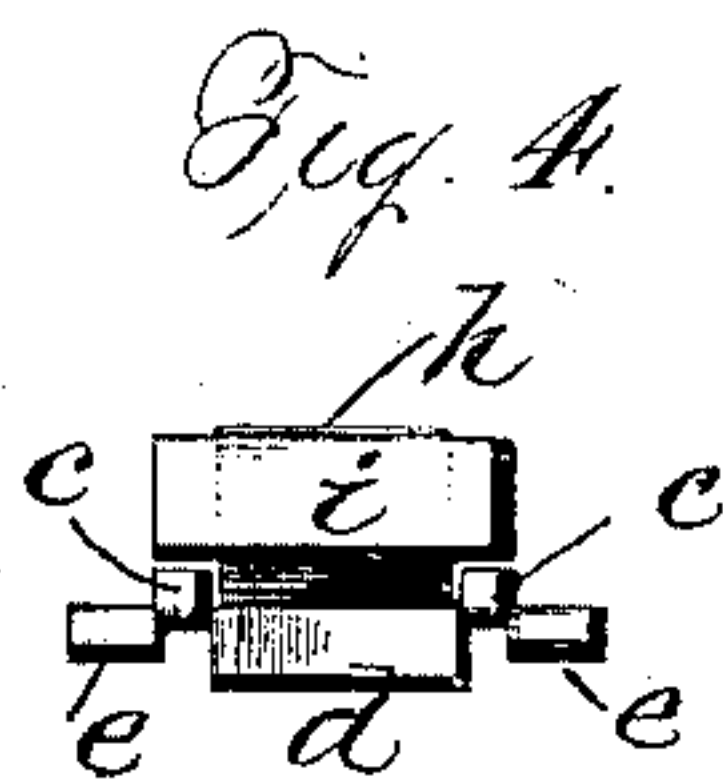
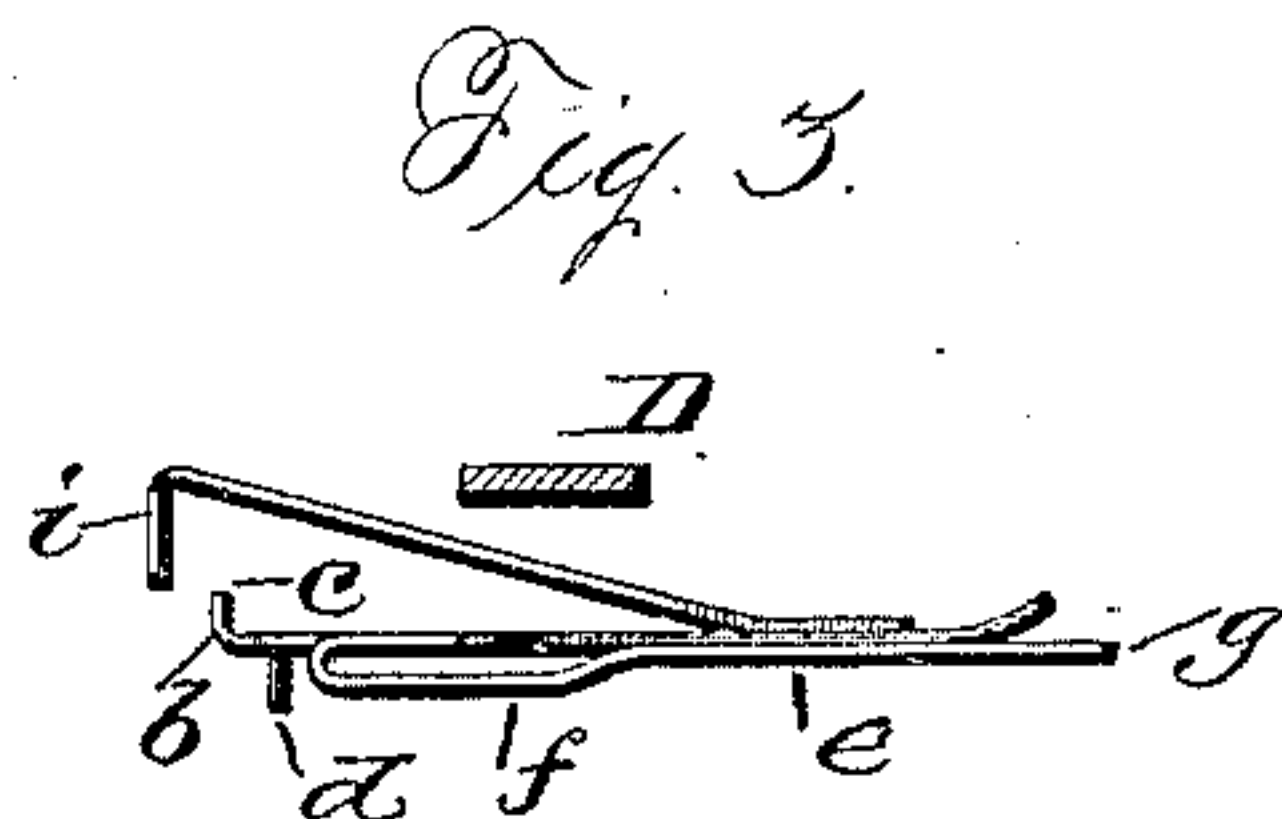
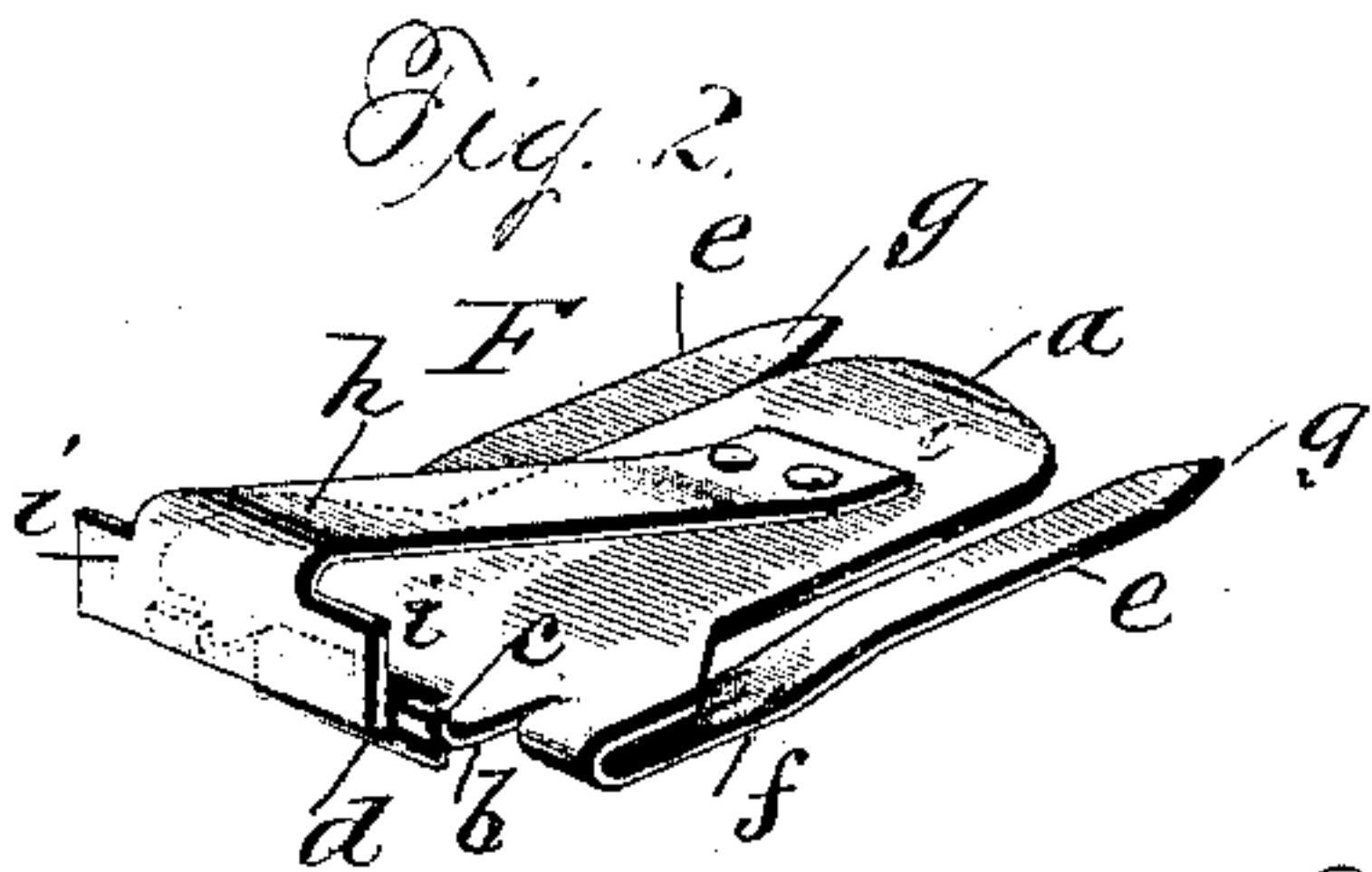
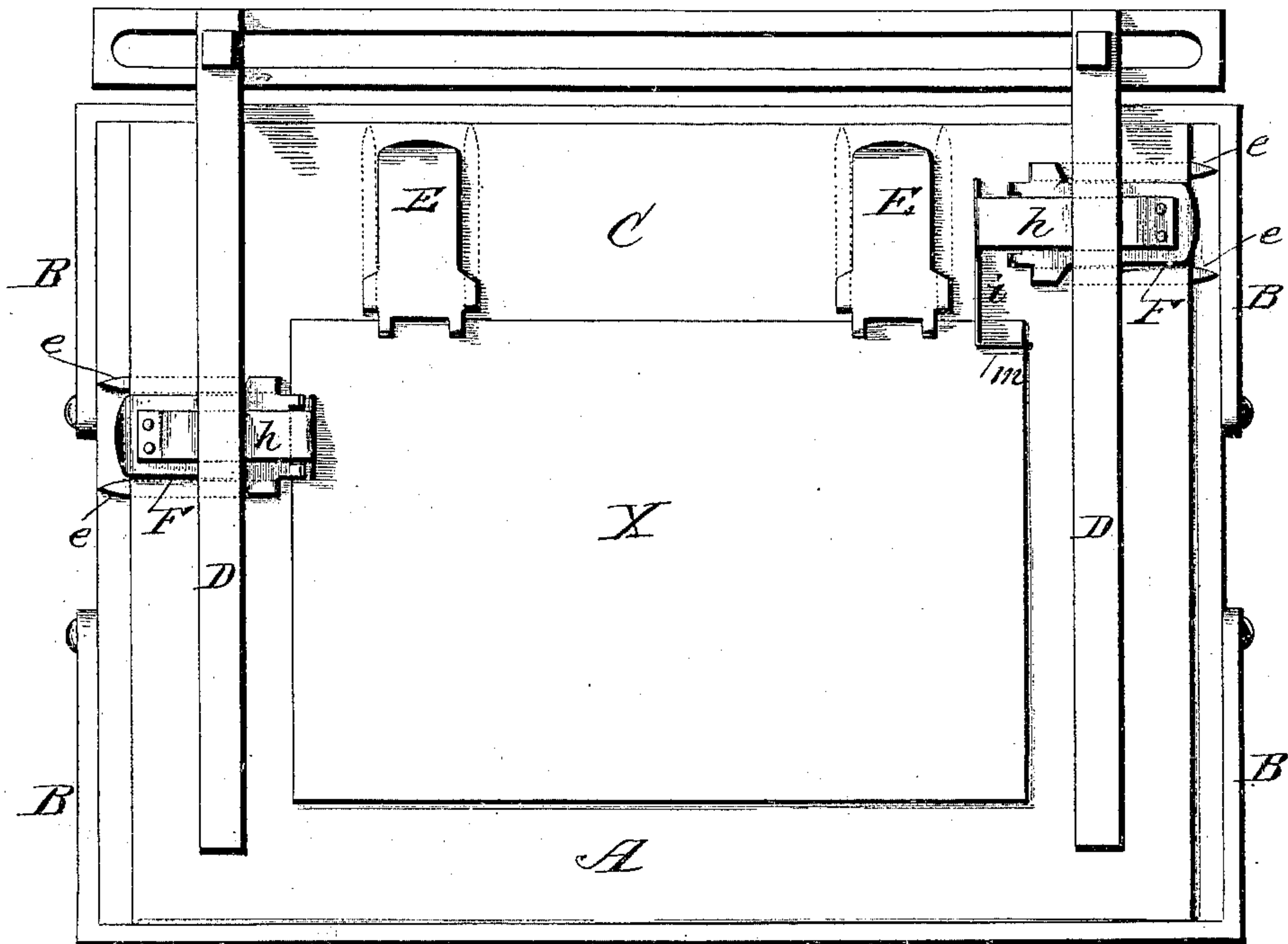
(No Model.)

C. W. HILTON.
AUXILIARY GRIPPER.

No. 415,639.

Patented Nov. 19, 1889.

Fig. 1.



Witnesses
Chas. J. Williamson
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UNITED STATES PATENT OFFICE.

CHARLES W. HILTON, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR OF
ONE-THIRD TO JOHN E. GREER, OF SAME PLACE.

AUXILIARY GRIPPER.

SPECIFICATION forming part of Letters Patent No. 415,639, dated November 19, 1889.

Application filed July 19, 1889. Serial No. 317,979. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HILTON, a citizen of the United States, residing at Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Auxiliary Grippers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in attachments to, or devices designed to be used in connection with, printing-presses; the device illustrated and described being designed as an auxiliary gripper, operated by the grippers of an ordinary printing-press, and the object of the invention is the production of a simple and cheap device for use on printing-presses to hold the margin of the sheet being printed, whereby smaller sheets than may be held by the regular grippers may be printed, and whereby the sheet may be printed very near the margin.

The device, though designed primarily as an auxiliary gripper, may be advantageously employed as a feed-gage, if so desired.

The invention consists in the peculiar combinations, and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a top plan of a platen of a printing-press, showing my invention applied thereto. Fig. 2 is a perspective view of the auxiliary gripper detached. Fig. 3 is a side view of the auxiliary gripper with the gripper-finger in section. Fig. 4 is a front-edge view thereof.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the platen of a

printing-press provided with the usual pivoted bands B, for holding thereon the usual platen-paper. I make no claim to anything new in the platen or any parts of the printing-press except in conjunction with my improved auxiliary gripper; so I have chosen to show only such parts as co-operate therewith.

C is the tympan, and D are the grippers, of known construction and operating in the usual manner.

E are feed-gages, which may be of ordinary and well-known construction, or they may be of the form shown in Fig. 2, said form constituting a very efficient feed-gage, although such is not its primary function.

F is my auxiliary gripper, the construction of which will be more readily understood from reference to Figs. 2 and 3. It consists of a piece of sheet metal of the desired thickness and size, the thickness and size being varied to suit the nature of the work being done. It is cut and bent into the form shown—that is, with a main body *a*, from which extend the lips *b*, having upturned ends *c*, the metal from between said lips being turned down, as shown at *d*. The strips *e* are bent upon themselves, as shown, being bent upwardly, as shown at *f*, and formed with sharpened ends *g*, of sufficient length for the proper insertion into the tympan-sheet, the ends of said strips being knife-pointed to make a clear-cut incision, to prevent tearing of the tympan-sheet. To the body of the gripper is attached in any suitable manner—as, for instance, by means of rivets—the spring-metal strip *h*, the free end of which has a right-angled portion *i* with a straight under edge, said spring-piece being adapted to fit, when pressed downward, between the lips *b* of the body of the gripper and over the downturned portion *d*.

In practice, one of my auxiliary grippers is placed on the left-hand side of the tympan, as shown in Fig. 1, the spring-piece *h* being arranged at right angles to the regular gripper, as shown, the said auxiliary gripper being secured in its proper place by passing its sharpened prongs into the tympan-sheet, as shown in Fig. 1. In this position the downturned portion *d* of the auxiliary gripper serves as a feed-gage for the side edge of the

paper or card to be printed, said paper being designated in the drawings by the letter X. As the platen is raised to make the impression the regular gripper of the press will come in contact with the spring-plate of the auxiliary gripper, as shown in Fig. 1, pressing it down and causing the portion *i* thereof to press on the paper X, and thus hold it till the platen is moved away from the form, when the gripper is raised from contact with the spring-plate of the auxiliary gripper and the paper is free to be removed. Of course the position of the auxiliary gripper may be varied to suit the pressman; but in practice I have found it to work to the best advantage in substantially the relative position in which it is shown at the left of Fig. 1.

At the upper right hand of Fig. 1 I have shown an auxiliary gripper substantially like that employed on the left and shown in Figs. 2 and 3, except that the clamp portion of the spring-plate is extended so as to grip the corner of the sheet X, having a right-angled portion *m*, as shown in said Fig. 1, for this purpose. The spring and clamp offer no resistance in feeding.

What I claim as new is—

1. The combination, with the press-grippers, of an auxiliary gripper independent of and actuated by the press-grippers, substantially as described.

2. The combination, with the press-grippers, of a spring auxiliary gripper arranged in the path of and actuated by the press-gripper, substantially as described.

3. An auxiliary gripper for printing-presses, having means for its attachment to the platen,

and a spring-clamp adapted to be operated by the press-gripper, substantially as described.

4. The combination, with the press-gripper, of an auxiliary gripper provided with a spring-plate terminating in a clamp and arranged in the path of, and at right angles to, the path of the press-gripper, substantially as described.

5. The combination, with the press-gripper, of an auxiliary gripper arranged in the path of the press-gripper and provided with a spring-plate and a clamp at the free end of said spring-plate, said clamp having an extended and right-angled portion, substantially as shown and described.

6. As an improved article of manufacture, an auxiliary gripper formed with lips, a downwardly-depending portion between said lips, and a spring-plate having a clamp extending at right angles to the length of said plate, substantially as described.

7. As an improved article of manufacture, an auxiliary gripper and feed-gage, consisting of a metal plate formed with lips, a depending portion between said lips, spring, sharpened prongs, and a spring-plate attached to the plate of the gage and having a depending portion at right angles to its length to serve as a clamp, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES W. HILTON.

Witnesses:

ROBERT J. PEASLEE,
GEO. H. WARREN.