(Model.) 3 Sheets—Sheet 1.

H. DEDREUX.

AUTOMATIC FEEDER FOR PRINTING AND OTHER PRESSES.

No. 246,473. Patented Aug. 30, 1881.

Fig. 1.

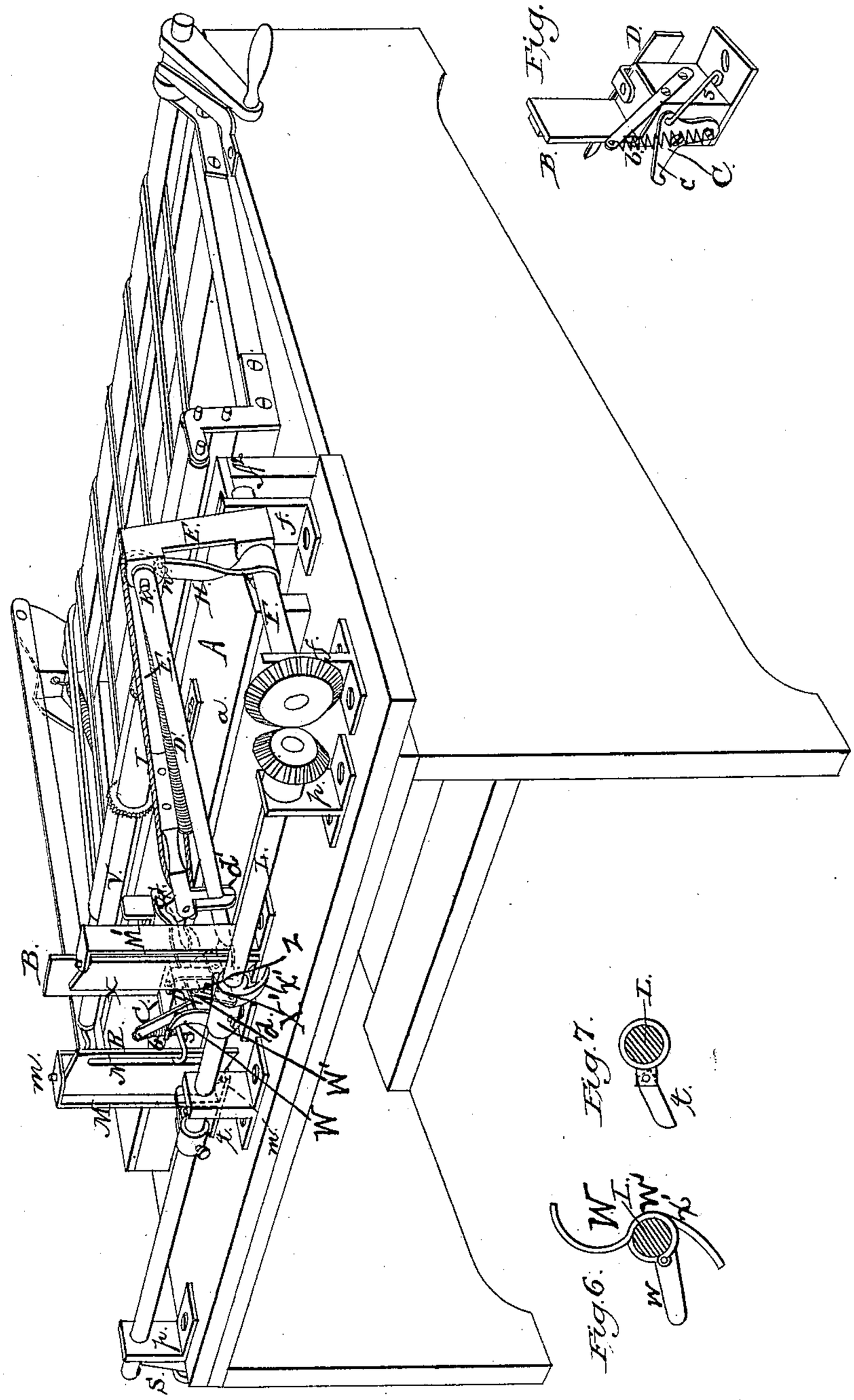

Fig. 2.

Fig. 6.

Fig. 7.

WITNESSES.

John A. Ellis.
W. H. Singleton

INVENTOR.

Henry Dedreux
By.
E. W. Anderson ATTORNEY.

(Model.) 3 Sheets—Sheet 2.

H. DEDREUX.

AUTOMATIC FEEDER FOR PRINTING AND OTHER PRESSES.

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Fig. 3.

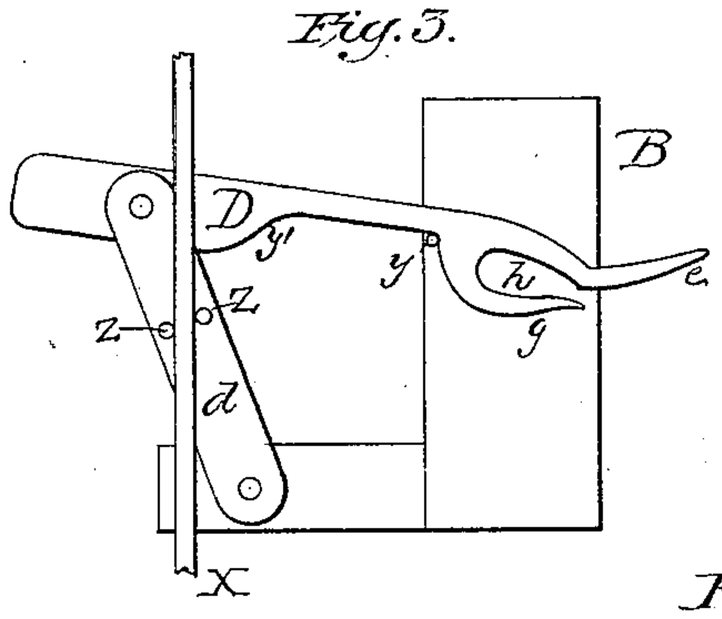


Fig. 4.

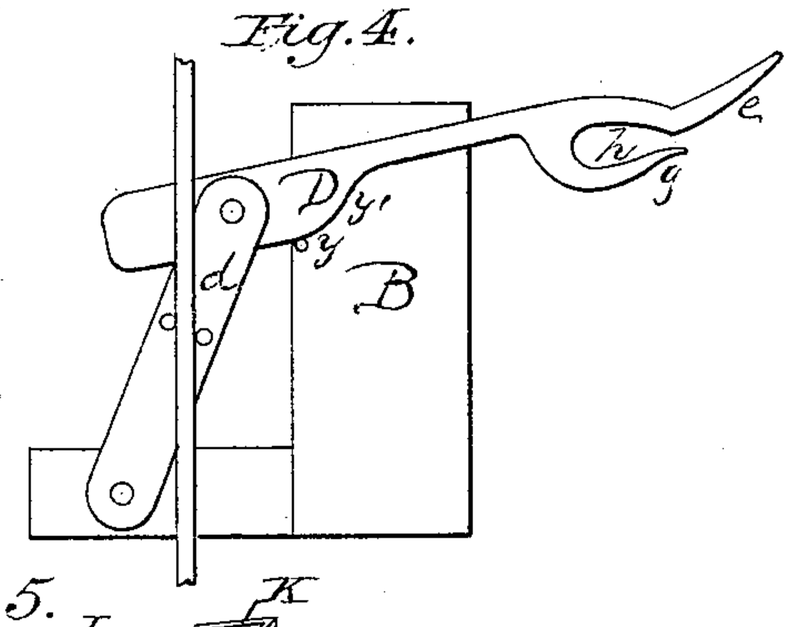
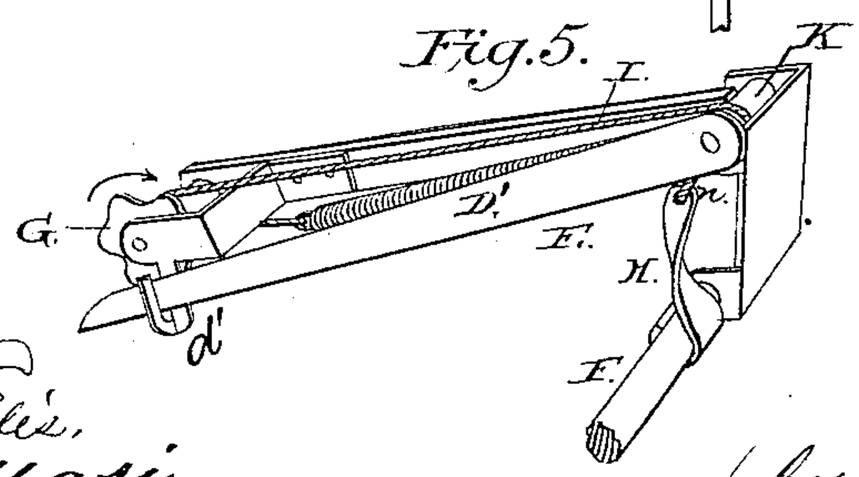


Fig. 5.



WITNESSES.

John A. Ellis.

Philip Lellasi.

INVENTOR.

Henry Dedreux

by Ed Anderson

his ATTORNEY.

(Model.) 3 Sheets—Sheet 3.

H. DEDREUX.

AUTOMATIC FEEDER FOR PRINTING AND OTHER PRESSES.

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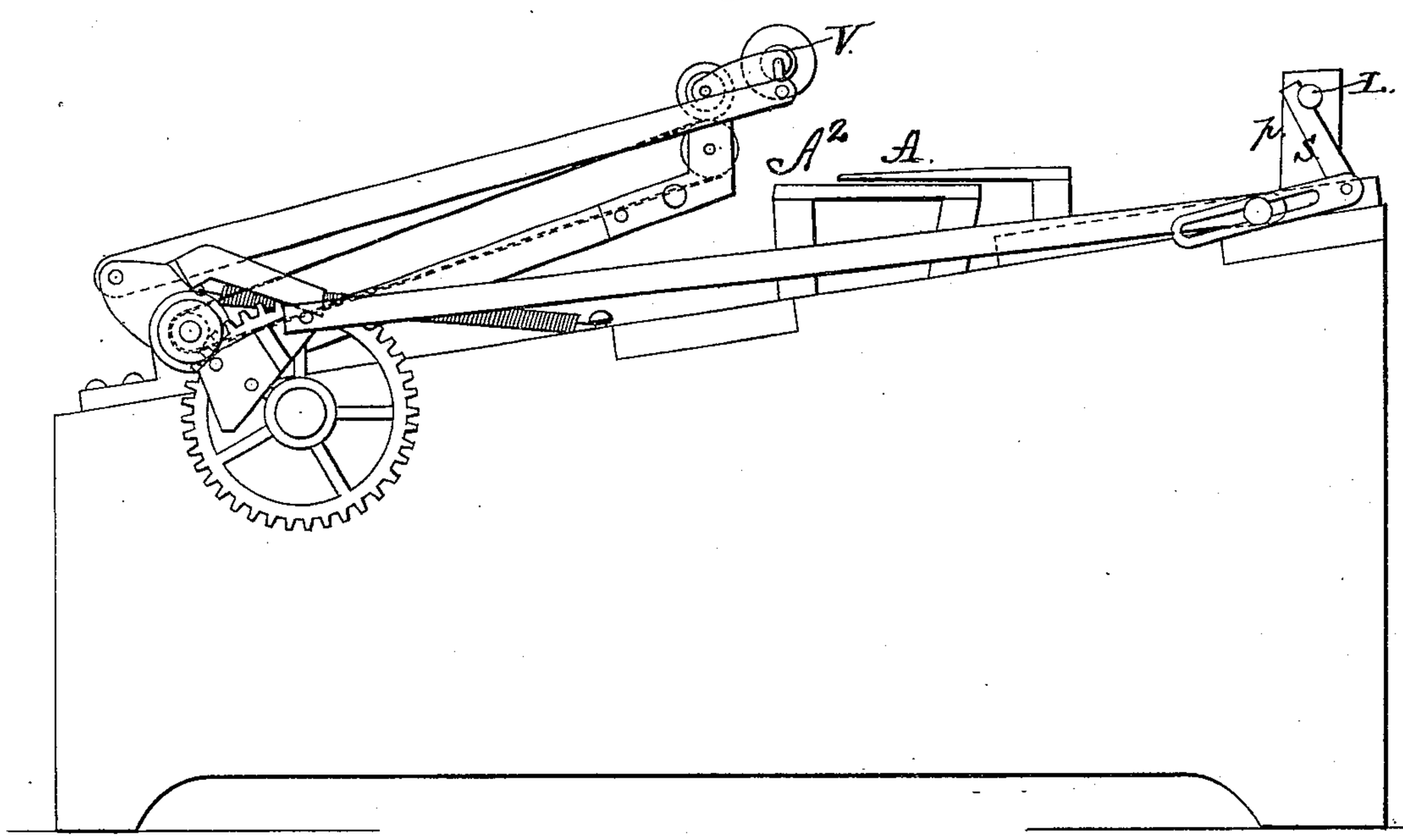
Fig. 8.



WITNESSES.

John A. Ellis.
Philip Lemasi.

INVENTOR.

Henry Dedreux,
by E. W. Anderson
his ATTORNEY.

UNITED STATES PATENT OFFICE.

HENRY DEDREUX, OF PHILADELPHIA, PENNSYLVANIA.

AUTOMATIC FEEDER FOR PRINTING AND OTHER PRESSES.

SPECIFICATION forming part of Letters Patent No. 246,473, dated August 30, 1881.

Application filed November 13, 1880. (Model.)

To all whom it may concern:

Be it known that I, HENRY DEDREUX, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Automatic Feeders for Printing and other Presses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation 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.

Figure 1 is a perspective view of the device. Fig. 2 is a detail showing the griper. Figs. 3 and 4 show different positions of the holder. Fig. 5 is a detail showing the toothed roller and stop. Figs. 6 and 7 are details showing the tappets on the main shaft. Fig. 8 is an end view, showing the connection of the rock-shaft with operating mechanism.

This invention relates to the feed for presses, and its object is to render such feed automatic.

It consists in the construction hereinafter specified in the claims.

In the annexed drawings, A is a platform for receiving the pile of sheets to be fed forward to the machine. This platform extends over the edge of a table, A^2, as clearly shown in Fig. 8, though the platform and table may be constructed as one. At its rear end, *a*, is located a post, B, to which is pivoted a griper, C, whose hooked end *c* is held down upon the sheets by a spring, *b*. Upon the other side of said post B, by an arm, *d*, is hinged a holder, D, whose forward end is composed of branches *e g*, the former and top one extending beyond and up from the lower one, the two forming a slot, *h*.

To one side of platform A is hung, upon shaft F, a bracket, E, which extends across said platform, and has at its ends forks, between which is journaled a roller, G, said roller being to the same side of post B as forked holder D, and on a line with hooked end *c* of griper C, both being a little in front of the line of post B.

Fastened to shaft F is an arm, H, from whose end *n* a chain, I, extends up over roller K upon bracket E, down to and around roller G. This roller or wheel G has its periphery made of blunt teeth, and is turned in the direction of the arrow by the chain I and returned by a spring. To the rear end of this roller K is secured an arm, D′, the front end of which is held in a guide-loop, *d′*, at the end of bracket E. The extreme point of this arm D′, taking against the post B and acting as a stop, keeps the roller G from going too far. Shaft F is hung in bearings *f f*, and gears by a bevel-wheel with another upon shaft L, turning in bearings *p p*.

Behind post B, and to the side upon which is griper C, is a bracket, M, having arms *m m*, between which is pivoted a frame, N, whose rod R is connected by a wire, *s*, to griper C. To the rear of the frame N, upon the shaft L, is located a cam, *t*, adapted to strike said frame N at the proper time.

To the same side of shaft L as bracket M, but to the other side of post B and holder D, is located another bracket, M′, carrying frame X, which latter engages pins *z z* on arm *d* of holder D. On shaft L, back of this frame, are secured two sleeves, W′ and X′, the former having the rule-jointed tappet *w* and rigid cam-tappet W, and the latter the rigid cam-tappet *x′*, the cam-tappets projecting in opposite directions.

Attached to shaft L is the arm S, through which said shaft has a rocking motion.

To the front end of platform A is inclined a frame bearing in front the feed-shaft V, having feed-rollers. In front of this shaft is located the feeding device usually in use in these machines. A pile of sheets is placed upon platform A, with the feed-rollers of shaft V upon their front ends, and the hooked end *c* of griper C, arm D, and wheel G upon their rear ends.

Power is communicated to rock-shaft L through arm S, turning said shaft toward the platform A. This causes shaft F to also turn toward the platform, pushing arm H downward, drawing on chain I, and causing wheel G to turn as indicated by the arrow. As the griper C holds the other side of the sheets fast, this rotary action of the wheel G causes its teeth to "buckle up" the leaves, especially the uppermost one, against the resistance of the griper. The holder D being very light, this buckling raises it, and the top sheet drops into the slot *h*. At this point the tappet W, striking the frame X, causes the latter to turn on its pivots and, through the forward pin *z*, thrust the holder forward, so that the upper sheet is held well in the slot *h*, whereby the holder operates as a

lifter at the proper time. As shaft L returns tappet W is lifted from frame X; but the jointed tappet *w*, coming up, locks the frame forward, until the tappet *t*, operating on frame N, shall have withdrawn the griper from the top sheet, when the feed-rollers on shaft V catch it, bearing it off. At this moment both tappets *t* and *w* are drawn from their respective frames, and the spring *b* returns the griper and the tappet *x'* by bearing on its heel the frame X and holder D. While this is proceeding, wheel G will cease to revolve, the chain I running out, and further strain on said chain causes bracket E to rise and lift wheel G from off of the pile of sheets, when all will fall except the one held in holder D. As shaft L turns so as to return the griper and holder for the next sheet the bracket and its attachments are also returned.

What I claim is—

1. The combination of the spring-pressed griper C and the buckling-wheel G, carried in the swinging bracket E, with the forked holder D, as set forth.

2. The swinging forked holder D and shaft L, having a tappet, in combination with intermediate devices, substantially as described, whereby the shaft operates to swing the holder, as set forth.

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

HENRY DEDREUX.

Witnesses:
W. W. DOUGHERTY,
ALLEN H. GANGEWER.