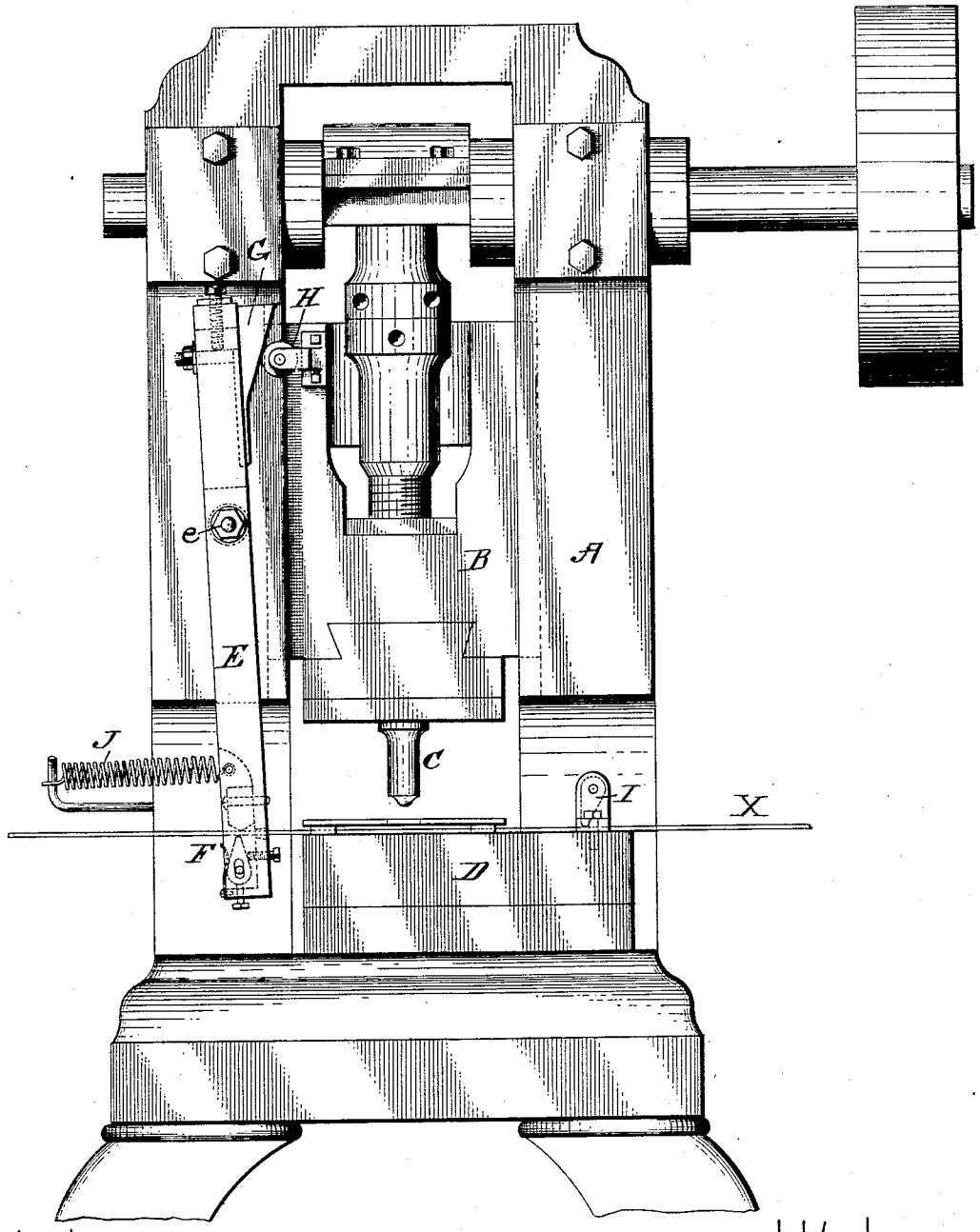
No. 738,103. PATENTED SEPT. 1, 1903.

W. P. DEVINE.

FEED MECHANISM.

APPLICATION FILED MAY 21, 1902.

NO MODEL. 2 SHEETS—SHEET 1.



WITNESSES:

INVENTOR:

Fig. 1.

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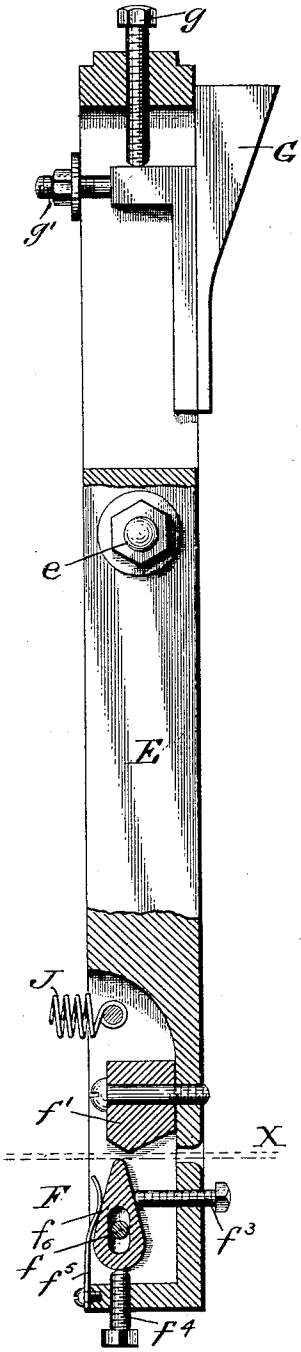


Fig. 2

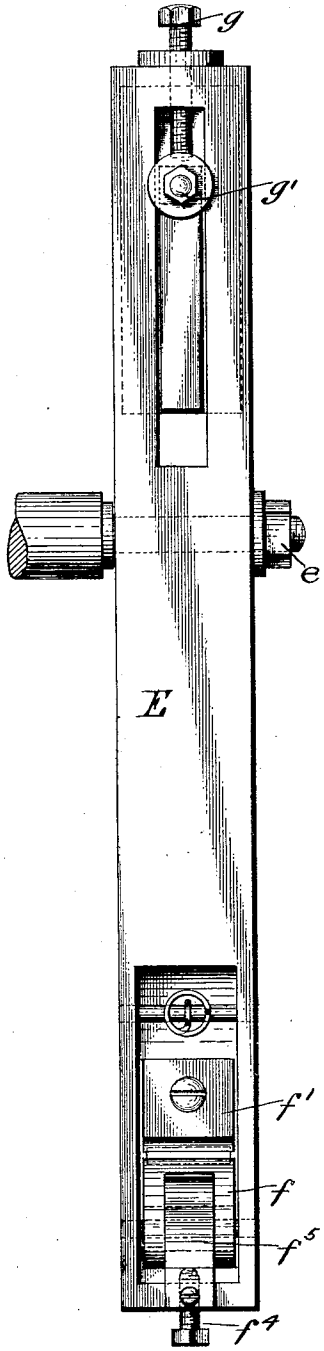


Fig. 3.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 738,103. Patented September 1, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM P. DEVINE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE CONSOLIDATED FASTENER COMPANY, OF PORTLAND, MAINE.

FEED MECHANISM.

SPECIFICATION forming part of Letters Patent No. 738,103, dated September 1, 1903.

Application filed May 21, 1902. Serial No. 108,370. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. DEVINE, a citizen of the United States, residing at Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Improvement in Feed Mechanisms, of which the following is a full specification.

My invention relates to power-presses or other machines in which one or more operations are performed upon a strip of metal or other material passing through the machine; and it consists in a new and improved mechanism whereby the said strip of metal or other material is by the movement of the machine itself intermittently fed through the machine, thereby allowing the operation or operations to be performed upon new portions of the strip of material which are successively and regularly presented to the tool or tools.

I have shown my feed mechanism as applied to a power-press; but it is clearly adaptable as well to any machine where an intermittent feed is required.

Referring to the accompanying drawings, wherein like letters represent like parts, Figure 1 is a front elevation of a power-press provided with my improved feed mechanism. Fig. 2 is a vertical central longitudinal section of my improved feed mechanism. Fig. 3 is a side elevation of the same.

In the drawings, A is the frame of a power-press, and B the reciprocating plunger of the same.

C is a tool or punch carried by the plunger B, which coöperates with a suitable stationary die D and stamps or punches the strip of material X, which is fed beneath the punch C by means of the feed mechanism, as hereinafter described.

My feed mechanism consists of the following pieces: the swinging lever E, pivoted to the frame at e, having at its lower end the grip F and at its upper end the adjustable cam-dog G, the roller H, attached to the plunger of the machine, and the check-pawl I, fixed to the die-bed.

The action of the grip F will be readily understood by referring to Figs. 2 and 3. It consists of the dog f', bolted to the lever E, and the slotted loose pawl f, loosely attached to the lever E by the pin f^6 and held in place by the spring f^5, and the adjusting-screws f^3 and f^4. The pawl f is adjusted so that there is a slight space between its upper end and the lower end of the fixed dog f'. A strip of metal X may be freely passed between the pawl and dog from right to left, as shown in Fig. 2, but will be firmly pinched between them if any motion is attempted in an opposite direction. The checking-pawl I acts in the same manner, allowing the metal free movement from right to left, but preventing any movement in the opposite direction.

The lever E is oscillated in one direction on its pivot by the spring J and in the other direction by the roller H, attached to the plunger and engaging with the cam-dog G, adjustably attached to the upper end of the lever E by the bolts g and g', as shown. By raising or lowering the cam-dog G the swing of the lever, and consequently the amount of the feed, may be accurately regulated. As the plunger ascends the roller strikes the cam-dog G, throwing the lower end of the lever E toward the center of the press, the grip F sliding over the stock X, which is firmly held against any movement in the same direction by the check-pawl I. As the plunger descends the roller H leaves the cam-dog G, allowing the spring J to carry the lower end of the lever E away from the center of the press. With this motion the grip F takes hold of the stock X, drawing it without resistance through the check-pawl I.

I claim—

1. In a feed mechanism, the combination with a reciprocating part of a machine, and a check-pawl, of a feed mechanism operated by said reciprocating part in one direction, said feed mechanism comprising an oscillating lever having a gripping device at one end and an adjustable cam-surface at the other end, and a spring adapted to retain the cam-carrying end of said lever in contact with said reciprocating part.

2. In a feed mechanism, the combination with a reciprocating part of a machine, and a check-pawl, of a feed mechanism operated by said reciprocating part in one direction, said feed mechanism comprising an oscillating lever having an adjustable gripping device at one end and an adjustable cam-sur-

face at the other end, and a spring adapted to retain the cam-carrying end of said lever in contact with said reciprocating part.

3. In a feed mechanism a swinging gripping-lever having the fixed dog f', adjustable gripping-pawl f and adjustable cam-dog G in combination with the reciprocating part of a machine and a check-pawl, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 6th day of February, A. D. 1902.

WILLIAM P. DEVINE.

Witnesses:
FRANK G. PARKER,
GEO. C. HOLMES.