

No. 689,382.

Patented Dec. 24, 1901.

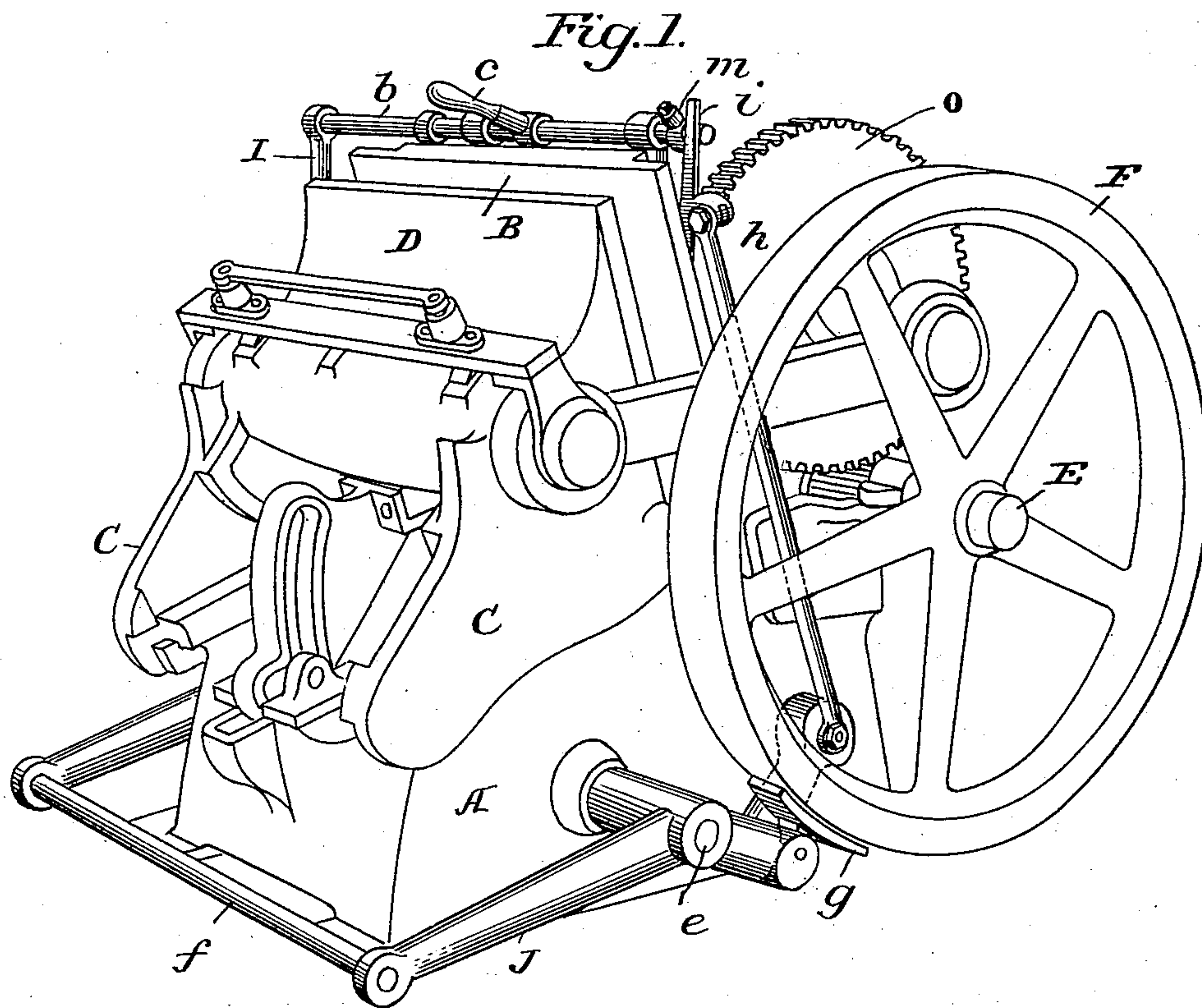
M. L. BRISTOL.

BELT SHIFTER FOR EMBOSsing PRESSES.

(Application filed Mar. 14, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

J. G. Hinkel
H. M. Gillman, Jr.

Inventor

Mortimer L. Bristol

By *Joseph Freeman*
Attorneys

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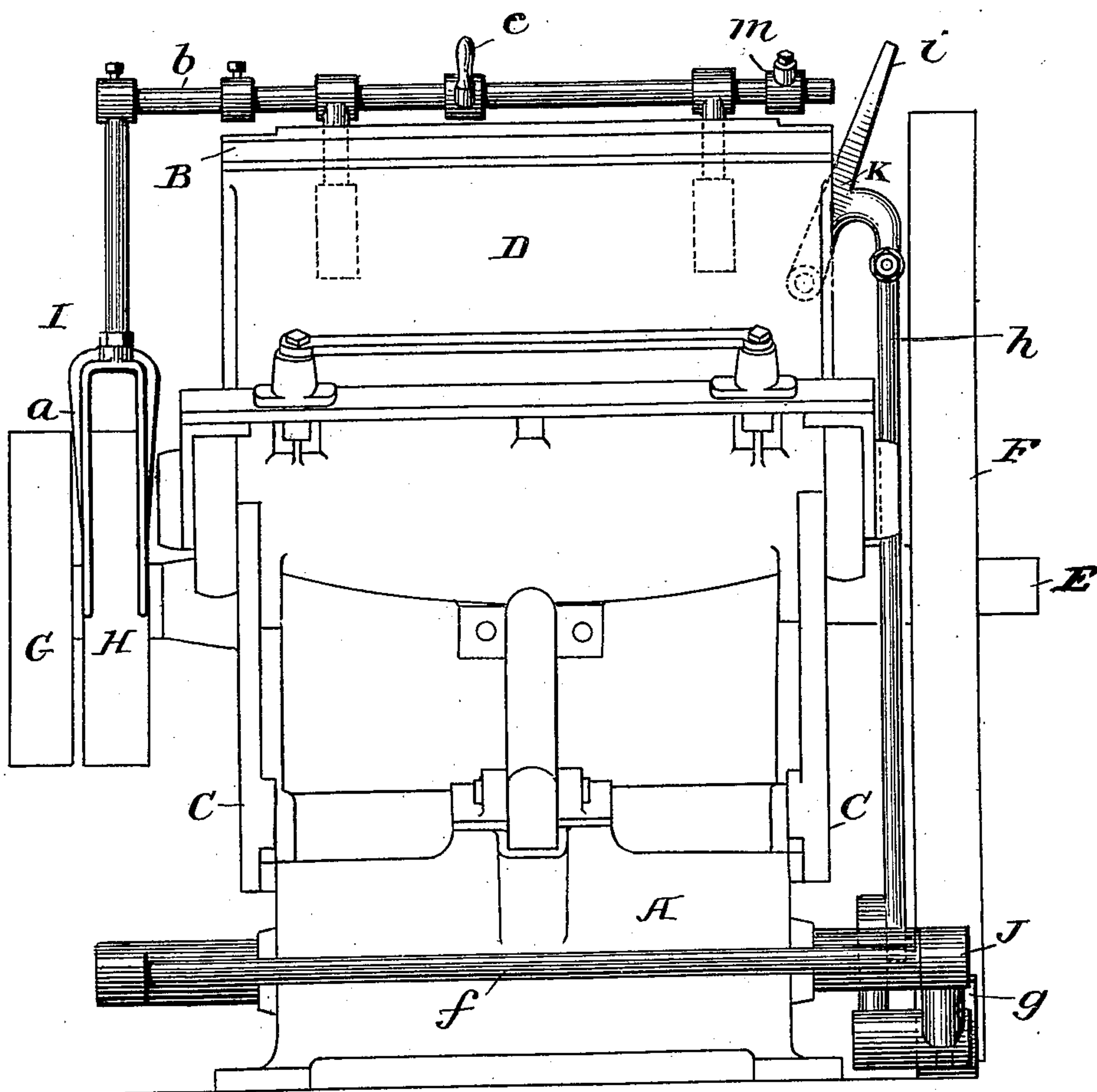
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2 Sheets—Sheet 2.

Fig. 2.



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J. H. Hinkel
H. M. Bellman, Jr.

Inventor

Mortimer L. Bristol

By

James Freeman

Attorneys

UNITED STATES PATENT OFFICE.

MORTIMER L. BRISTOL, OF HARTFORD, CONNECTICUT, ASSIGNOR TO JOHN THOMSON PRESS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

BELT-SHIFTER FOR EMBOSSING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 689,382, dated December 24, 1901.

Application filed March 14, 1901. Serial No. 51,198. (No model.)

To all whom it may concern:

Be it known that I, MORTIMER L. BRISTOL, a citizen of the United States, residing at West Hartford, Hartford county, State of Connecticut, have invented certain new and useful Improvements in Belt-Shifters for Embossing-Presses, of which the following is a specification.

My invention relates to belt-shifters for embossing-presses; and it consists in the combination, with the fly-wheel and belt-shifter of a press, of a treadle, a brake-shoe, and connections between the treadle and the belt-shifter, whereby the brake-shoe may be applied to the fly-wheel as the belt-shifter is operated to throw the belt onto the loose pulley, thereby enabling the operator to use both hands in connection with the feeding operations and to arrest the movement of the apparatus at any time without shock by a movement of the foot, all as set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a press provided with my improvement, and Fig. 2 a rear elevation of the same.

In the construction of press shown there is a frame portion or standard A, supporting a bed B, and a vibrating member or platen D, receiving movement through devices not necessary to be herein described from the pinion-shaft E, connected to the main gear-wheel O and provided with a fly-wheel F at one end and fast and loose pulleys G H at the opposite end, the belt passing through the fork a of a belt-shifter I, the fork being connected with a rod b, sliding in bearings on the frame or standard and provided with a handle c, by means of which the operator can manually shift the belt in either direction at any time.

In many instances it is extremely desirable that the operator should be enabled to employ both hands in manipulating the sheets being fed to or taken from the press at the time the press is stopped, and it is also desirable to arrest the movement very suddenly to avoid accidental damage and preferably without shock. To secure these results, I make use of a brake device which applies a brake to the fly-wheel at the moment the belt is shifted

onto the loose pulley, these parts being moved by the foot of the operator and preferably being so constructed that the operator can apply his weight to bring the brake with any desired force and suddenness upon the periphery of the fly-wheel. Different constructions may be employed in carrying out this operation; but, as shown, a lever or treadle J is pivotally mounted upon the side of the frame, as at e, a cross-bar f, upon which the foot may be placed, and an arm carrying a brake-shoe g, arranged opposite the periphery of the fly-wheel F. To the inner end of said arm is connected a rod h, the upper end of which is pivoted to a bell-crank lever K, one arm i of which may be brought in contact with an adjustable sleeve m upon the rod b of the belt-shifter.

When the press is running, the weight of the parts preponderates on the side of the shaft e to which the brake-shoe is connected, so that the frame J is tilted in a manner to raise the cross-bar f and carry the brake-shoe downward and the lever K away from the rod b. In this position the belt-shifter is manually carried to the right, causing the belt to operate upon the fast pulley, the arm i being out of contact with the sleeve m, so that the belt-shifter may be freely operated either to the right hand or the left by manipulating the handle c.

When the operator desires to arrest the movement of the press without using his hand, he places his foot upon the bar f and depresses the outer end of the frame J, thereby bringing the arm i against the sleeve m, shifting the belt onto the loose pulley, bringing the shoe g as it approaches this position against the periphery of the fly-wheel F, thus not only taking the power away from the press, but simultaneously applying such a brake-pressure to the fly-wheel as will result in the speedy arrest of its movement.

It will of course be understood that the press is started by hand, the operator seizing the handle c to shift the belt-shifter to bring the belt onto the fast pulley, thus controllably starting up the heavy fly-wheel and other moving parts of the press.

While the brake is shown as carried by the

treadle, any other suitable means may be employed whereby the movements of the treadle are the means of applying or taking off the brake.

- 5 It will be evident that the treadle, lever, and brake and connections may be differently arranged from those shown without departing from the main features of my invention; also, that two fly-wheels may be employed, 10 one on either side of the press, each having its individual brake.

Without limiting myself to the precise construction and arrangement of parts shown, I claim as my invention—

- 15 1. The combination with a press having a pinion-shaft with fast and loose pulleys and a fly-wheel, of a slidably-supported belt-shifter, a treadle, a brake-shoe actuated by the treadle in position to be applied to the 20 fly-wheel, and mechanism connected to the treadle and operated thereby to engage the

belt-shifter when the treadle applies the brake, substantially as set forth.

2. The combination with a press having a pinion-shaft with fast and loose pulleys and 25 a fly-wheel, of a slidably-supported belt-shifter, an adjustable projection on the belt-shifter, a bell-crank lever mounted to engage the projection, a treadle, a brake-shoe actuated by the treadle to engage the fly-wheel, 30 and a connection between the treadle and the bell-crank lever to actuate the latter when the brake is applied by the treadle, substantially as set forth.

In testimony whereof I have signed my 35 name to this specification in the presence of two subscribing witnesses.

MORTIMER L. BRISTOL.

Witnesses:

JOHN THOMSON,
L. C. GROVER.