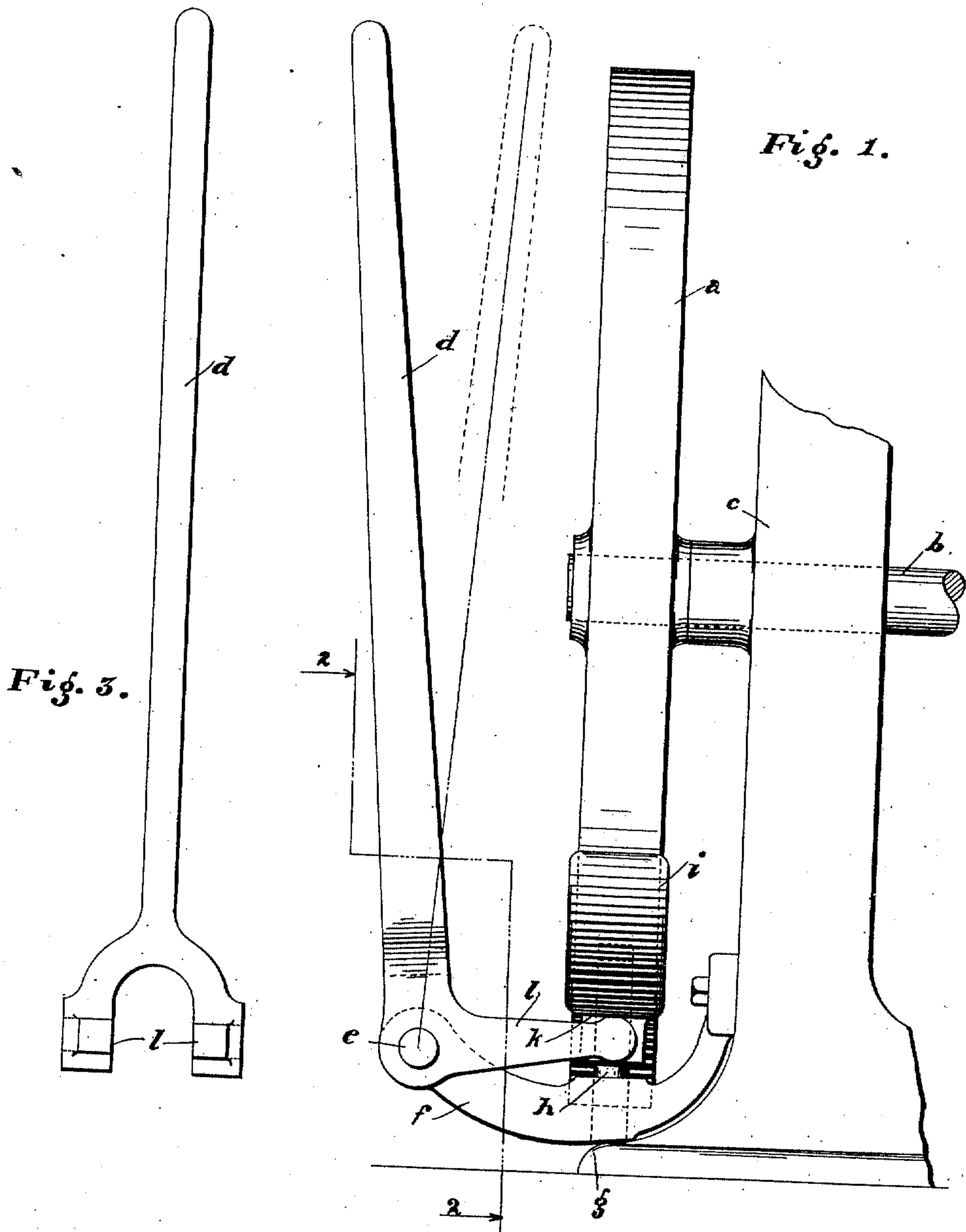


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APPLICATION FILED JAN. 6, 1910.

Patented Feb. 28, 1911.
2 SHEETS—SHEET 1.



WITNESSES:
John W. Thompson
M. Rollins

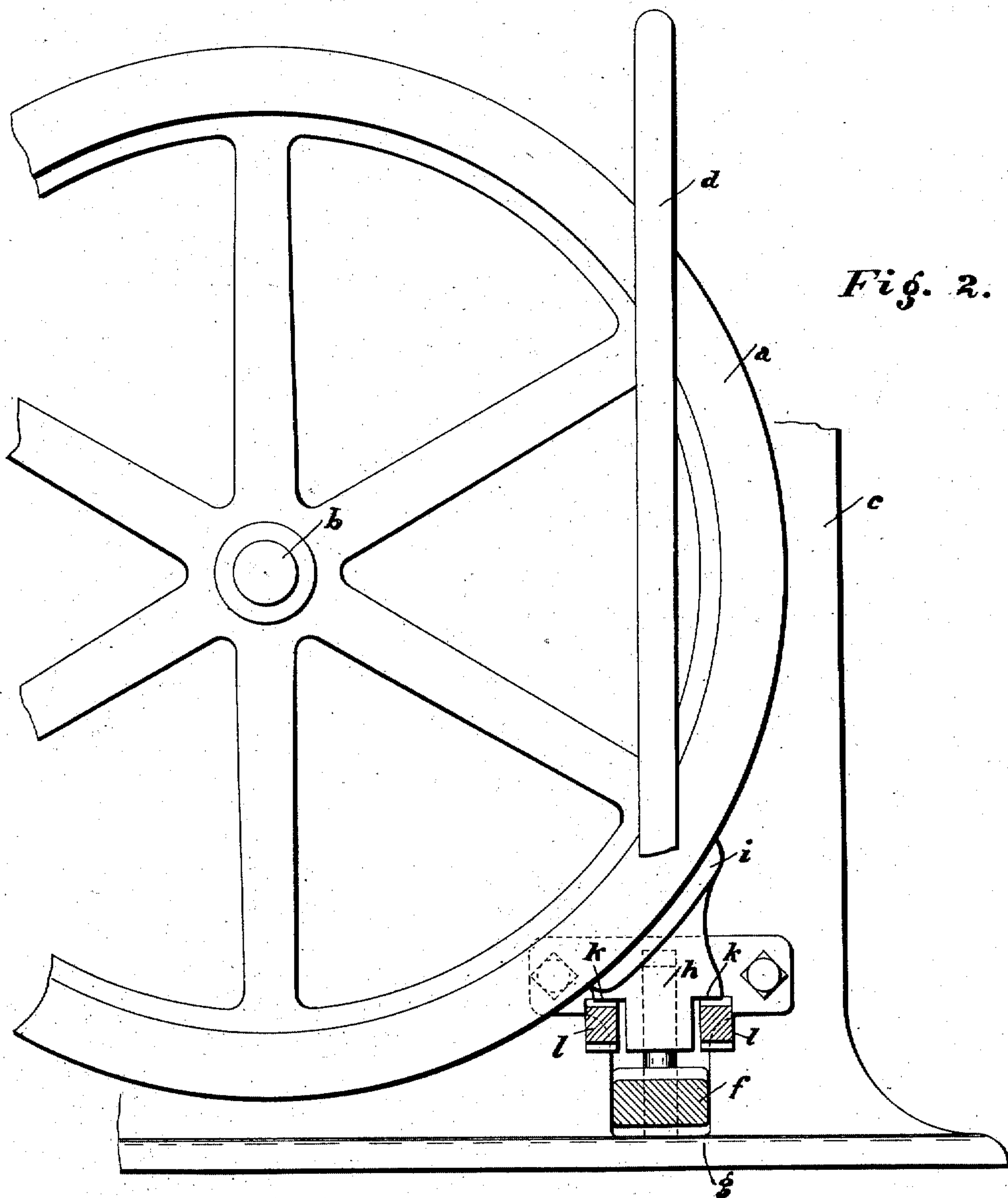
INVENTOR
John Thomson
BY
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UNITED STATES PATENT OFFICE.

JOHN THOMSON, OF NEW YORK, N. Y., ASSIGNOR TO JOHN THOMSON PRESS COMPANY,
OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

BRAKE FOR PRINTING-PRESSES.

985,228.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed January 6, 1910. Serial No. 536,764.

To all whom it may concern:

Be it known that I, JOHN THOMSON, a citizen of the United States, and a resident of the borough of Manhattan of the city of New York, in the county and State of New York, have invented certain new and useful Improvements in Brakes for Printing-Presses, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

The invention relates more particularly to improvements in fly-wheel brake mechanisms for printing presses, and the main object thereof is to provide a self contained structure which shall be exceedingly rigid and enduring and one in which the brake-shoe shall be adapted to have a wedge-like action (which has been found effective in the case of an earlier construction of applicant in bringing fly-wheels making from two hundred to three hundred revolutions a minute to a dead stop), without imposing a severe wrenching strain upon the cooperating or adjacent parts.

In the present improved construction, the brake-shoe is mounted at one side of the fly-wheel shaft, that is to one side of a vertical line through the center of said shaft, and a lever independent of the brake-shoe is provided for driving it upwardly so that the face of the brake-shoe may impinge obliquely upon the face of the fly-wheel. Heretofore, it has been difficult to obtain the high effectiveness of the brake and at the same time to enduringly mount it so that the severe wrenching strains caused by the wedge-like action would not bring undue strain upon the adjacent parts. As was generally the case, the shoe was carried upon the toe or bell crank extension of the brake lever, a construction which obviously is not well adapted to bear the strain placed upon it under the usual operating conditions. In the present case, to overcome the objections of the earlier designs, the shoe has been mounted freely upon a vertical pin which is firmly united to the frame of the machine and which readily transmits the strains imparted thereto to the frame.

The invention will now be described with reference to the accompanying drawings in which,

Figure 1 is a view in elevation of a portion of a press to which the improvements

have been applied, looking in the direction of the plane of the fly-wheel. Fig. 2 is a similar view, partly in section, and at right angles to the plane of Fig. 1, the section being indicated by the irregular broken line 2—2 in Fig. 1, and, Fig. 3 is a view in elevation of the hand lever detached from the press and as viewed from the inside.

The fly-wheel *a* may be mounted in the usual manner upon the fly-wheel shaft *b* which is journaled in the frame *c* of the press. The hand lever *d* for operating the brake is pivoted at *e* to a bracket *f* which is bolted to the frame and which rests down upon the heavy bottom flange *g* of the press. This bracket is located to one side of the vertical line through the center of the fly-wheel shaft and is provided with a vertical steel pin *h* which is securely inserted in the bracket, as indicated in Fig. 1, preferably at the point where the bracket rests down upon the bottom flange. Upon this steel pin *h* the brake-shoe *i* is freely mounted so as to be capable of sliding up and down thereon.

The underside of the brake-shoe is provided with two flat portions *k* and these flat portions are engaged respectively by pronged bell-crank extensions *l* of the hand lever *d* which extensions embrace the pin *h* and the portion of the brake-shoe between the flat portions *k* thereof (Fig. 2). The ends of the extensions *l* are somewhat rounded in order to bear suitably against the brake-shoe.

Now, by swinging the lever into the position shown in full lines in Fig. 1, the brake-shoe will be raised to the position shown in Fig. 2 of the drawing, where the face of the shoe is brought into oblique contact with the face of the fly-wheel. On the other hand, when the lever is thrown into the position indicated in broken lines in Fig. 1, the brake-shoe will slide down by gravity upon its bearing pin, leaving the fly-wheel free. It will be seen, therefore, that the bell-crank forks of the hand lever act only to impart motion and pressure to the shoe, the reacting thrust being resisted by the bearing in the shoe and its pin in the bracket.

It will be understood that various changes may be made in the construction shown and described without departing from the spirit of the invention. It will also be understood that when the press is driven by

a belt operating on pulleys, which latter may be mounted as usual on an outward extension of the fly-wheel shaft, a suitable fork for shifting the belt may readily be
5 applied to the hand lever, as usual; or, if the actuation of the press is by an electric motor, then the circuit controlling switch may with equal facility be connected to operate conjunctively with the action of the
10 brake. This is so clear as not to require illustration.

I claim as my invention:

In a printing press, the combination with the fly-wheel and frame, of a hand lever
15 having a forked end, a bracket secured to

the frame and to which the lever is pivoted, a vertical pin upon said bracket, and a brake-shoe freely mounted upon said pin to move vertically, the forked end of the lever embracing the pin and engaging the
20 underside of the brake-shoe to raise it into an oblique wedging contact with the fly-wheel and permitting it to drop again by gravity when the hand lever is released.

This specification signed and witnessed
25 this 29th day of December, A. D., 1909.

JOHN THOMSON.

Signed in the presence of—

E. E. KEICHER,

H. C. CROSS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
