

J. THOMSON.
PRINTING PRESS.
APPLICATION FILED DEC. 16, 1909.

980,454.

Patented Jan. 3, 1911.

Fig. 1.

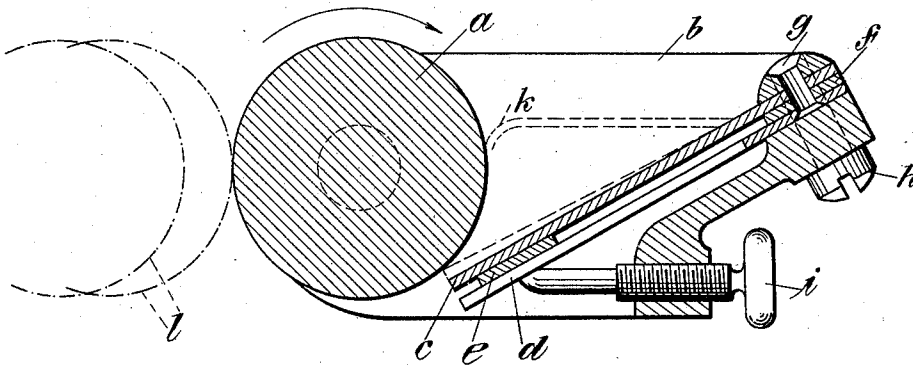
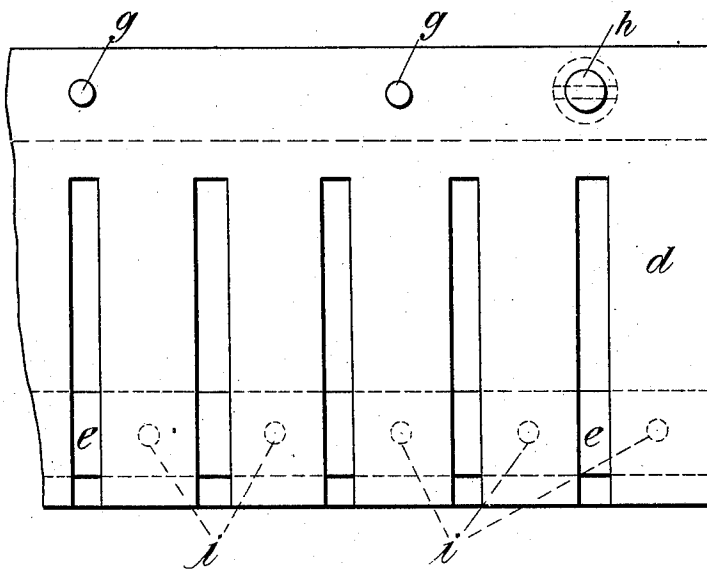


Fig. 2.



Witnesses
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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.

PRINTING-PRESS.

980,454.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed December 16, 1909. Serial No. 533,446.

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 Printing-Presses, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

The invention relates to improvements in printing presses and in particular to improvements in the construction and operation of the ink-fountains thereof.

The main objects of the invention are to obtain a more delicate and definite control of the film of ink to be transmitted by the ink-cylinder to the ductor-roller; to effectually lock the adjusting screws from being shifted by the vibration of the press; and to facilitate cleaning the fountain when changing from one color or grade of ink to another.

The invention will be more fully described in connection with the accompanying drawings in which enough of a printing press has been shown to illustrate the improvements.

In said drawings: Figure 1 is a view in transverse section of the ink-fountain, and, Fig. 2 is a plan view of a part of the fountain blade member detached from the fountain, as seen from the under side.

The fountain roller *a* is suitably journaled in the frame *b* of the fountain and, mounted in operative relation therewith, is the ink-blade *c* which preferably consists of a steel plate of the ordinary form. Underneath this primary ink-blade *c* is a supplemental ink-blade *d* which, as shown in Fig. 2, is slotted, thus simulating the form of a comb and which also is preferably formed from a steel plate. These two blades or plates are separated from each other, at the edge near the cylinder, by a yielding strip *e*, which may be of rubber, leather or some other suitable material, and at the other edge, by a rigid strip *f* which preferably is of metal. As thus assembled, the plates and separating strips are riveted together (the rivets being shown at *g*) and are thus made to constitute practically an integral member which may be secured down upon the frame by attaching screws *h*. When thus attached, the inner edge of the primary ink-blade *c* should preferably be about .07 to .10 of an inch away from the cylinder, and the

angle of the blade is preferably about 60° to 70° from the vertical. Coöperating with this member are adjusting means, such as screws *i*, which are threaded in the frame *b* and which engage respectively the tongues of the slotted blade *d*, being arranged at an acute angle with this blade, all of which can be done by mounting the screws at about 90° from the vertical in the frame *b*. In this wise, the teeth of the comb form distinct springs, which, when forced forward by the screws, impart movement through the yielding strip to a portion only of the primary ink-blade. *Per contra*, when a screw is withdrawn the corresponding spring-tongue is free to follow it, removing the tension from a limited section of the primary blade.

The advantages of the construction are obvious. The locating of the adjusting screws, for instance, so that their axes will lie at an acute angle to the blade, not only makes the rise or fall of the blade less for any given movement of the screws, but the reacting thrust of the spring-tongues clamps the screw threads and most securely locks the screws against shifting. As the ink generally used for the finer classes of printing is exceedingly dense and very viscous, its frictional adherence to the cylinder is frequently so great that the ink may be observed to roll upon itself as indicated by the broken lines *k* in Fig. 1. Moreover, it is of first importance that the ink-blade shall be flexible along the length of the cylinder so that an ink-film of a varying thickness may be drawn off, whereby to adapt the supply to a form having light and heavy portions on its surface, and yet which shall be relatively very rigid when set and delicately responsive to the adjusting screws. Finally, it is desirable that the fountain may be conveniently and expeditiously cleaned, which advantage is possessed by the present construction in a considerable degree from the fact that the blades and strips can be withdrawn as an integral member from the fountain by simply loosening the attaching screws *h*, whereby all parts of the fountain may be easily gotten at.

The ductor-roller is indicated by the dot and dash lines *l* in Fig. 1 and will enable the relation of the fountain to the rest of the press to be understood without further illustration.

Various changes may be made in the con-

struction shown and described without departing from the spirit of the invention.

I claim as my invention:

5 1. In a printing press, the combination with the ink-cylinder, of a primary ink-blade, a slotted supplemental blade, a yielding strip separating said blades at the edge near the cylinder, and a rigid strip separating said blades at the other edge.

10 2. In a printing press, the combination with the ink-cylinder and the frame, of a primary ink-blade, a slotted supplemental

blade, the said blades being secured along one edge to the frame, a metallic strip separating said blades near said edge, and a 15 yielding strip separating said blades at the other edge near the cylinder.

This specification signed and witnessed this eleventh day of December, A. D., 1909.

JOHN THOMSON.

Signed in the presence of—

E. E. KIRCHER,

H. C. CROSS.