

(No Model.)

W. SCOTT.  
PRINTING MACHINE.

No. 578,778.

Patented Mar. 16, 1897.

Fig. I.

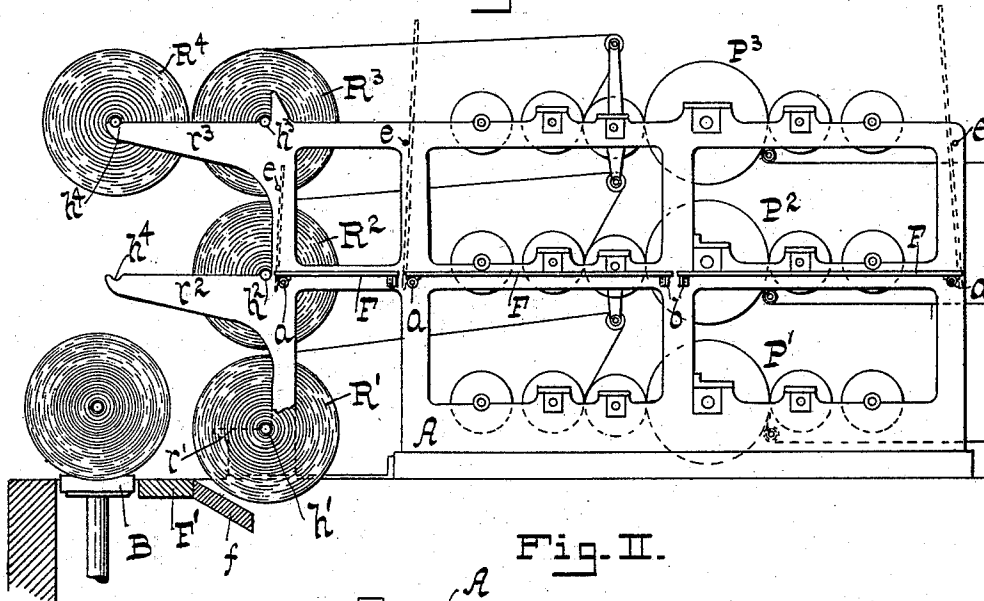


Fig. II.

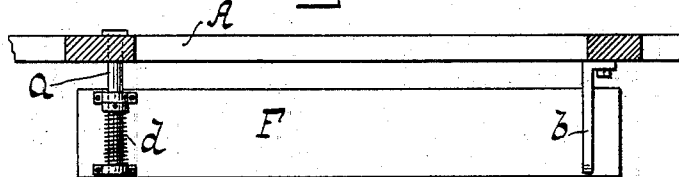
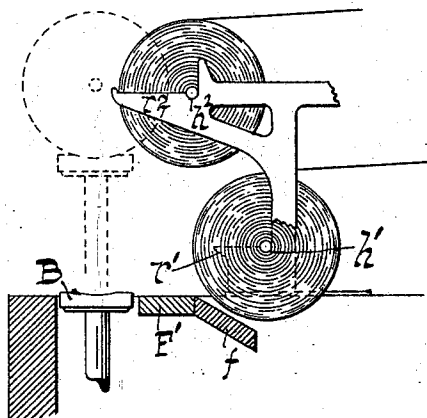


Fig. III.



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# UNITED STATES PATENT OFFICE.

WALTER SCOTT, OF PLAINFIELD, NEW JERSEY.

## PRINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 578,778, dated March 16, 1897.

Application filed January 30, 1895. Serial No. 536,638. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER SCOTT, a citizen of the United States, and a resident of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Printing-Machines, of which the following is a specification.

In some printing-machines there are a number of printing-presses arranged one above another with the web-spindle holders all at one end and the deliveries at the other. In working about these machines, as in taking off or putting on plates, it is necessary to have free access to all parts, and in the process of printing it is necessary to be able to see all parts and to be able to get at the upper machine handily. The workmen stand on foot-boards at the sides of the machine when printing is going on or when they are working with the upper machine or machines.

Among the objects of this invention are the placing of rolls of paper in position for use on any of said presses while the other roll or rolls are in place without disturbing anything already in use and free access to all parts of the machine in making up and while printing. These objects are attained by the hereinafter-described invention, which is also illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation, partly in section, of a printing-machine composed of three printing-presses arranged one above another. Fig. 2 is an underneath view of a foot-board shown in Fig. 1; and Fig. 3 is a side elevation, partly in section, showing another way of arranging the rolls of paper.

Referring to said drawings, the framework is indicated by the reference A, and the three printing-presses are indicated by the references P<sup>1</sup> P<sup>2</sup> P<sup>3</sup>. The rolls of paper for such presses are commonly wound on iron tubes or spindles, which are variously connected with the machine-frame. There are three spindle-holders *h*<sup>1</sup> *h*<sup>2</sup> *h*<sup>3</sup> (shown in Fig. 1) and two holders *h*<sup>1</sup> *h*<sup>2</sup> in Fig. 3. In Fig. 1 pairs of rails *r*<sup>1</sup> *r*<sup>2</sup> *r*<sup>3</sup> are shown extending rearwardly from the holders, (but one rail of each pair is shown; the other being a duplicate of that shown its construction is plain,) and Fig. 3 like pairs of rails *r*<sup>1</sup> *r*<sup>2</sup> are shown.

The rolls are hoisted by suitable means with their spindles just clear of the ends of the rails until they are opposite the desired press, when they are moved onto the proper pair of rails and rolled on their spindles to the spindle-holders. The roll-hoist may be of any usual or suitable construction. That indicated in the drawings consists of a grooved plate or platform B and a hydraulic apparatus whose piston operates the platform B. The lower press may be low enough for the roll R<sup>1</sup> therefor to be rolled along the floor F<sup>1</sup> into place, the floor having a sloping section *f*.

In the upper case the platform B is raised, as in Fig. 3, and the web rolled into place, as rolls R<sup>2</sup> R<sup>3</sup>. The rails may be of such length that two rolls of paper may be placed one behind the other, so that when the front web, as R<sup>3</sup>, is used up the end of the web from the second, as R<sup>4</sup>, may be attached to its end, the spindle of the front web be taken out, and the second web be rolled in place. The rails *r*<sup>2</sup> *r*<sup>3</sup> are shown with notches *h*<sup>4</sup> *h*<sup>4</sup> for holding the spindles of such second rolls.

The foot-boards F are so mounted on the framework that they may be moved aside at any time, so that workmen can get close to the plate and other cylinders. This is preferably done by pivoting said boards on horizontal axes *a* and swinging them up alongside the uprights A<sup>2</sup> of the frame A, where they are wholly out of the way. Suitable stops *b* support the boards when down. When swung up, the boards may be moved so that their centers of gravity may pass beyond the vertical through their axes, and the boards then rest against stops, but the preferred construction is to use a counterbalancing-spring *d*, (or weight,) as this aids in swinging the boards up out of the way against suitable stops *e* on the frame A. Springs *d* have one end fast to the studs or axes of the boards and are kept from unwinding by the boards themselves.

The rolls of paper may be mounted so that one is behind the other, as shown in Fig. 3.

Many changes in details may be made without departing from this invention, which is not limited to the precise construction shown.

Having thus fully described my invention, what I claim is—

1. In a printing-machine, the combination of a plurality of printing-presses arranged one above another, holders for roll-spindles at one end of said machine, and also one  
 5 above another, rails or extensions for the presses above the lower press extending beyond said holders a distance sufficient to allow hoisting of the upper roll or rolls wholly clear of the roll or rolls underneath when the  
 10 latter are in position in said holders and arranged to receive and hold the roll-spindles, and a hydraulic hoist for hoisting the rolls to the upper rails, substantially as described.

2. In a printing-machine, the combination  
 15 of three or more printing-presses arranged one above another in parallel planes, and skeleton framework supporting the journals of the printing-presses and one or more foot-boards pivoted on horizontal axes and ex-  
 20 tending along the framework and lying normally horizontally and adapted to be swung upward out of the way to afford ready access

to the plate or other cylinders of the middle press or presses, substantially as described.

3. In a printing-machine, the combination 25 of three or more printing-presses arranged one above another in parallel planes, a skeleton framework having horizontal cylinder-journal-supporting parts, and uprights connecting said horizontal parts, and one or more 30 foot-boards pivoted to said framework on horizontal axes and normally lying horizontally and adapted to be swung upward alongside the uprights, whereby ready access may be had to the plate or other cylinders, sub- 35 stantially as described.

Signed at New York, in the county of New York and State of New York, this 29th day of January, A. D. 1895.

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Witnesses:

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