J. R. RANKIN.

ROTARY PRINTING-PRESSES.

No. 193,995. Patented Aug. 7, 1877.

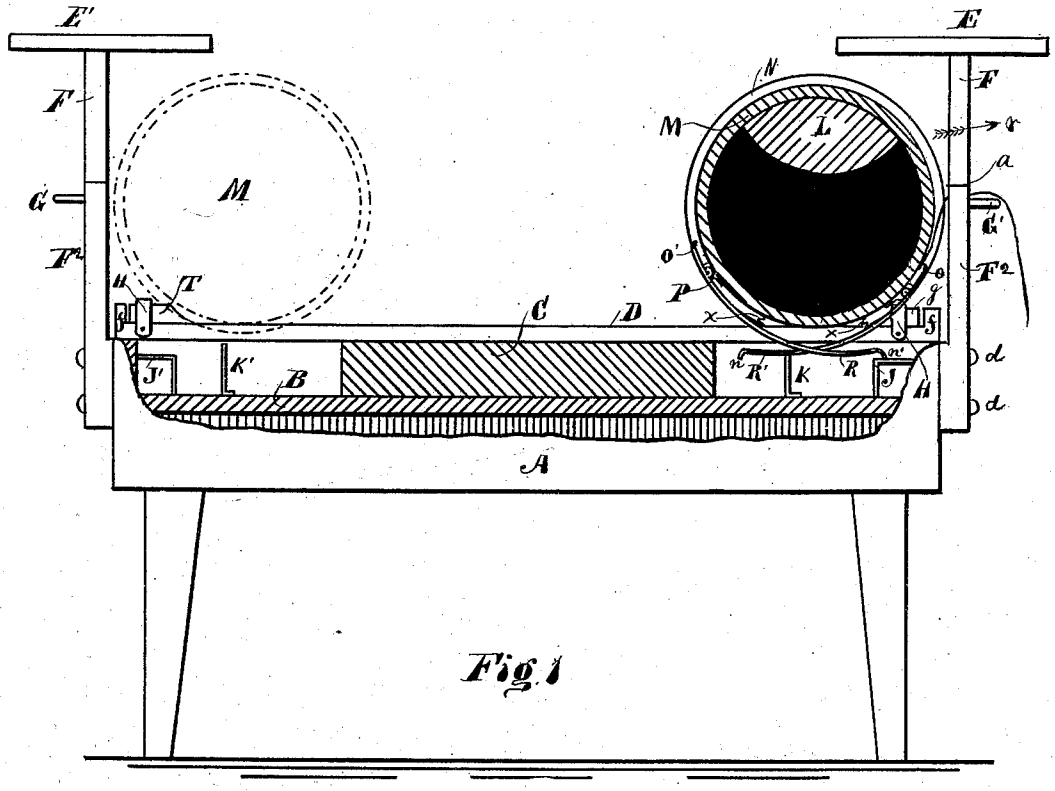


Fig. 1

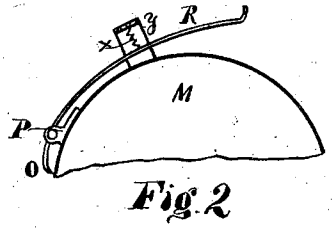


Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN R. RANKIN, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN ROTARY PRINTING-PRESSES.

Specification forming part of Letters Patent No. **193,995**, dated August 7, 1877; application filed October 30, 1876.

To all whom it may concern:

Be it known that I, JOHN R. RANKIN, of Indianapolis, county of Marion, State of Indiana, have invented a new and useful Improvement in Hand Printing-Presses, of which the following is a description, reference being had to the accompanying drawings.

My invention relates to improvements in the printing-press patented by me on the 2d day of May, 1876; and has for its object to construct the gripers and attach them to the cylinder and operate them by standards attached to the bed in such a manner as to open both set of gripers at once, and release the sheet already printed, and at the same time to allow the sheet that is to be printed to be inserted between the other gripers and cylinder; also, in the arrangement of adjustable pieces attached to the end of the rails on which the press-roller operates, which can be adjusted so as to stop the roller at the desired point at each end of the press under the feed-tables, whereby the operator can freely pass the sheet printed over the receiving-bar, and not interfere with the standards.

Figure 1 represents a side elevation of my improved machine, partially in section, to show the arrangement of parts that are new. Fig. 2 represents another method of operating the gripers from that shown in Fig. 1.

A represents the table or bed of the machine, having at each end standards F F^2. To the top of the standards F the feed-tables E E′ are secured. The standards F^2 F^2 are shorter, and only extend upward far enough to secure the receiving-bars G G′, thus leaving plenty of room between the top of the standards F^2 and feed-tables E to allow the operator to throw the sheet that is printed over the bar G in the direction of the arrow *r*. On each side of the table A are arranged rails D, in the usual manner, to allow the press-roller M to roll on. Each end of the rails D are turned up or forward with an upright projection, *f*, and in front of these upright projections *f* are secured blocks T by means of clamps H, in such a manner as to allow them to be adjusted and stop the pressure-roller M at any desired point. Attached to the bed of the press at each end are upright standards J K. The standards J are formed with broad tops, while the standards K are not. These standards are arranged in front and at one side of each other in such a manner as to operate on each of the griper-arms R R′, which will be hereafter described. The cylinder M is provided at each end with flanges N in the usual manner, and on the inside the weight L is attached so as to be slightly past a vertical line drawn through the center of the cylinder on top, when the cylinder is at each end of the table, so as to hold the cylinder against the adjustable stops T until operated to move back. On the cylinder M, at the position shown in the drawings, the gripers O O′ R R′ are pivoted by means of adjustable bearings P, so as to allow the arms R R′ to be depressed and open the gripers O O′, when the arms R R′ come in contact with the standards J and K at either end of the table. The gripers O are held against the cylinder by means of press-springs X, which may be attached between the arms R and cylinder, as shown in Fig. 1, or the springs may be attached to a loose frame, *y*, that straddles the griper-arm R and the springs attached, as shown in Fig. 2.

The gripers O O′ are open on each side of the cylinder, so as to receive a new sheet to be printed on one side, and release the sheet that has been printed on the other side. As the press-roller is allowed to roll toward the other end of the machine, as indicated by the dotted cylinder, then the griper-arms R R′ are released from contact with the standards J K, and the gripers O O′ both close up on the cylinder, one set holding the sheet to be printed, the other against the cylinder. When the cylinder approaches the position shown by dotted lines, then the griper-arms R R′ come in contact with the standards J′ K′, and release the sheet printed, and open the other gripers to receive a new sheet, the operator passing with his hand the sheet printed over the receiving-bar G.

What I claim as new, and wish to secure by Letters Patent, is—

1. The combination of the adjustable blocks T and rails D, in the manner specified, for the purpose of adjusting the travel of the

pressure-roller M, in the manner set forth and described.

2. The cylinder M, provided with flanges N at each end, and having a weight side, L, arranged and adapted to be operated in the manner and for the purposes set forth and described.

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

JOHN R. RANKIN.

Witnesses:

E. O. FRINK,

I. F. RANDOLPH.