

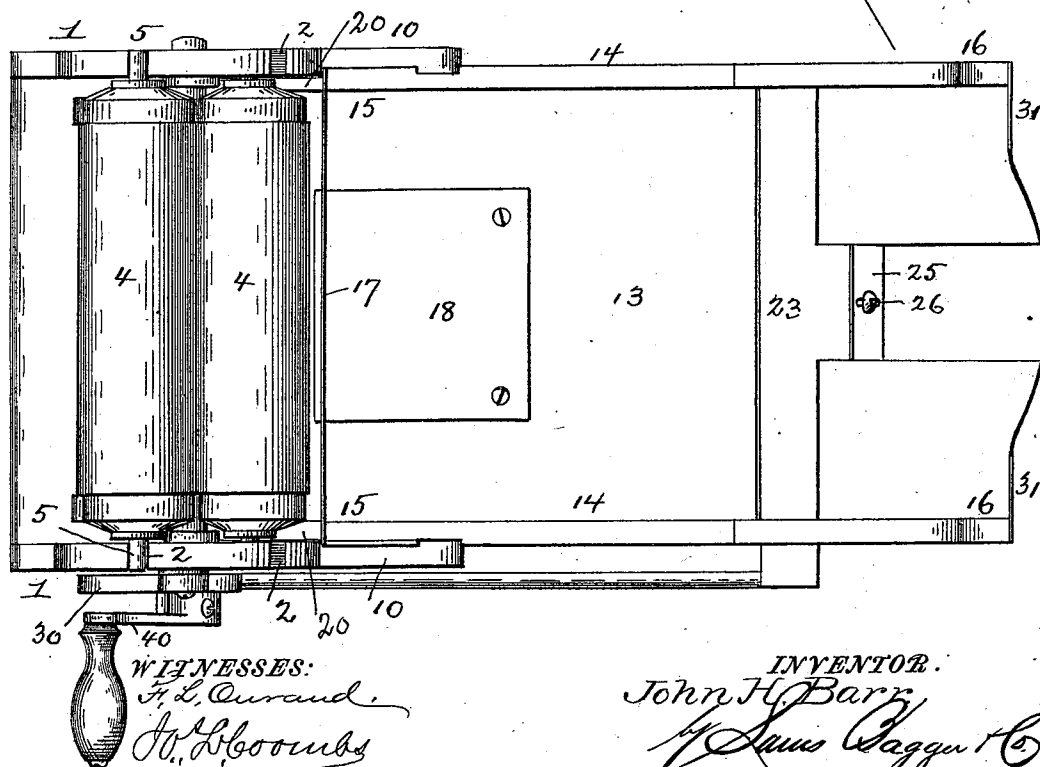
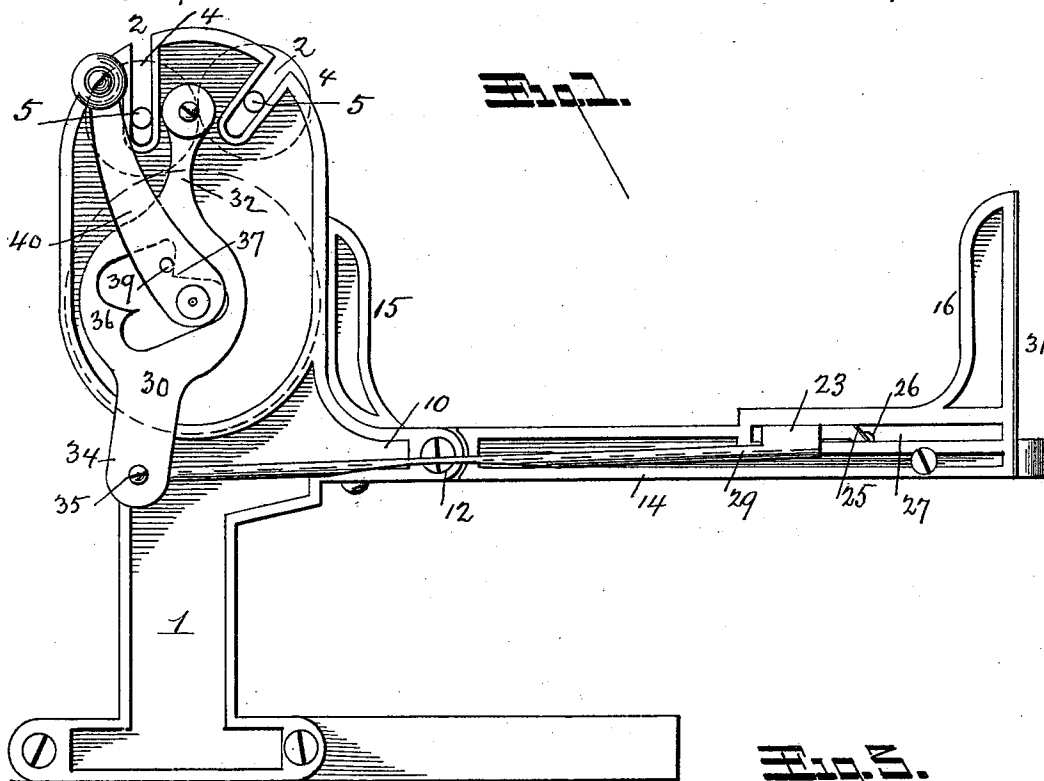
(No Model.)

3 Sheets—Sheet 1.

J. H. BARR.
RUBBER TYPE PRINTING PRESS.

No. 516,885.

Patented Mar. 20, 1894.



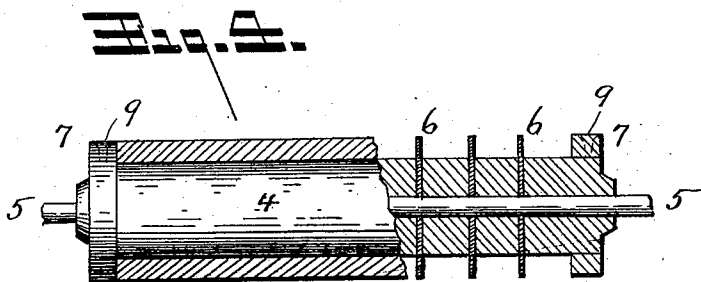
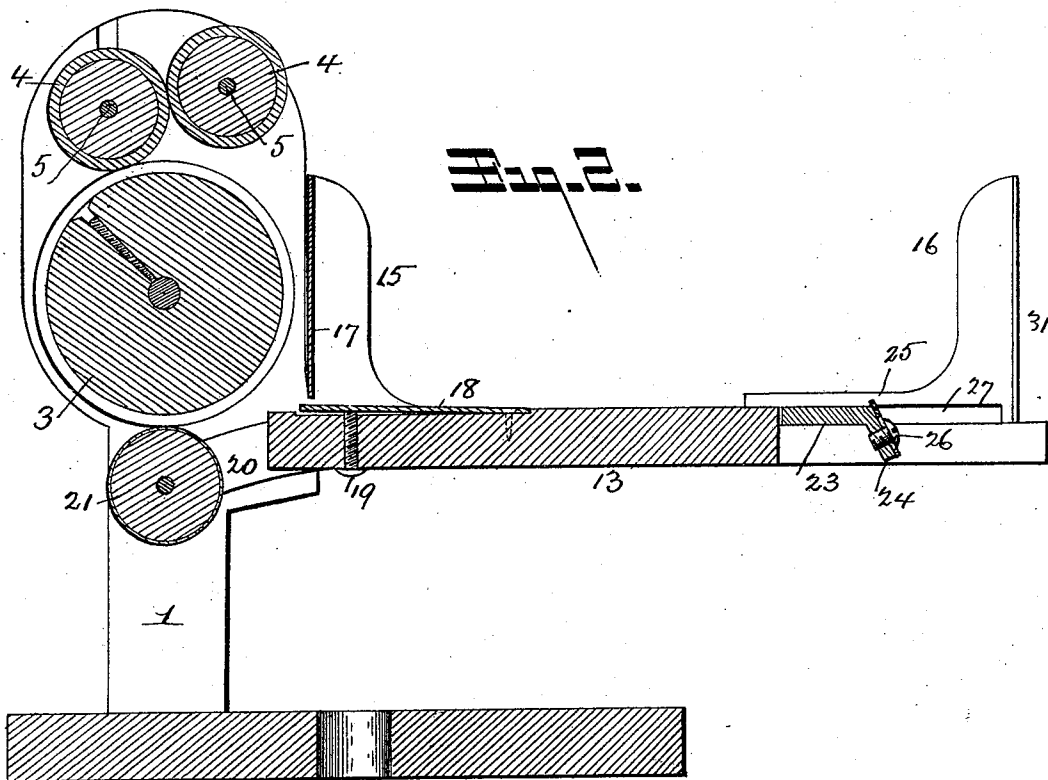
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3 Sheets—Sheet 2.

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WITNESSES:
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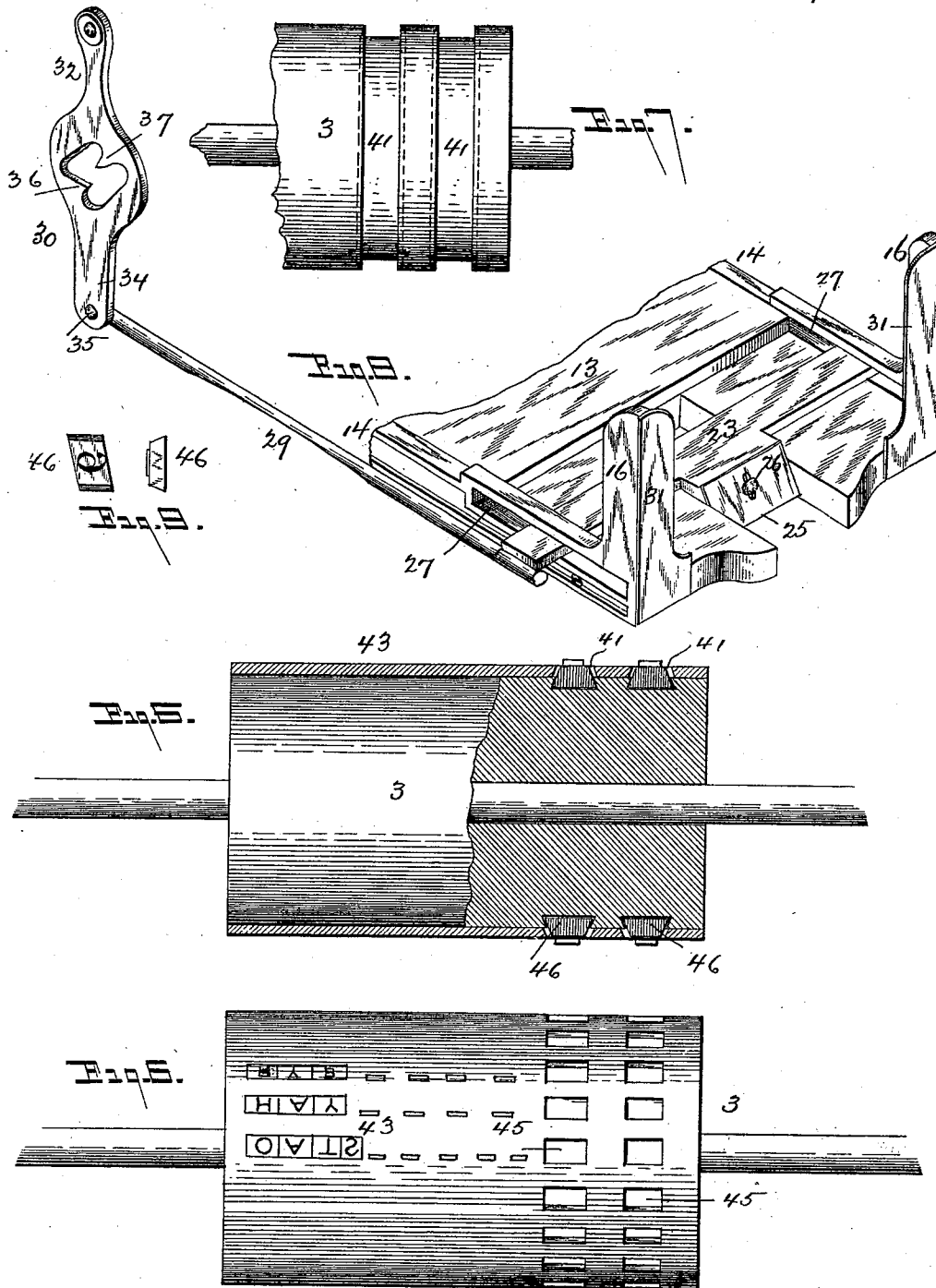
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3 Sheets—Sheet 3.

J. H. BARR.
RUBBER TYPE PRINTING PRESS.

No. 516,885.

Patented Mar. 20, 1894.



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UNITED STATES PATENT OFFICE.

JOHN H. BARR, OF MERIDEN, KANSAS.

RUBBER-TYPE PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 516,885, dated March 20, 1894.

Application filed June 22, 1893. Serial No. 478,483. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BARR, a citizen of the United States, and a resident of Meriden, in the county of Jefferson and State of Kansas, have invented certain new and useful Improvements in Rubber-Type Printing-Presses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same; reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in cylinder printing presses, especially designed for printing price quotations on postal cards, although it is equally adapted for printing cards of any description or character.

The object of the invention is to provide a novel press for printing cards which will be self-inking and self-feeding and which shall possess superior advantages with respect to simplicity in construction and efficiency in operation.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is a side elevation of a hand printing press constructed in accordance with my invention. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a plan view. Fig. 4 is a detail view partly in elevation and partly in section of one of the inking rollers. Figs. 5, 6, and 7 are detail views of the cylinder. Fig. 8 is a detail perspective view of the feeding bar and plate. Fig. 9 is a detail view of the removable type.

In the said drawings, the reference numeral 1 designates two uprights, preferably of malleable iron, having slots 2, 2, at their upper ends for the journals of the inking rollers and recesses for the journals of the type cylinder 3.

The numerals 4, 4, designate the inking rollers, one of which contacts with the type of the cylinder 3, while the other serves as a distributor so that the ink will be evenly spread upon the type. These rollers are made of metal so that by gravity the lower roller will bear with sufficient pressure upon the type cylinder. Each of these rollers is pro-

vided with a shaft 5, and a series of annular washers 6, and end disks 7. See Fig. 4. These washers are movable endwise and serve to separate disks or tubes 8 of felt or other absorbent material which receives the ink from the inking rollers. By this means inks of different colors can be supplied to the type cylinder, as each disk or tube is separate and distinct from the adjoining ones. The washers 6 are movable laterally on the rollers, so as to accommodate different lengths of the absorbent disks, and the disks 7, which serve to hold said tubes in place on the rollers are also movable endwise, and are provided with countersunk set screws 9 whereby they are secured to the rollers.

The uprights 1 are provided with extensions 10, to which is pivoted at 12, the card rack or holder, consisting of the bottom 13, sides 14, front end standards 15, and rear end standards 16, the left hand end of the press being termed the front. The sides are made of metal secured to the bottom and the front standards are provided with a transverse plate 17, the lower edge of which does not extend quite to the bottom 13, so as to leave a space for the passage of a card. At each side the lower edge of this plate is cut away or beveled, whereby cards with turned up corners will have no difficulty in being fed to the cylinder.

The numeral 18 designates a spring metal plate secured at one end to the bottom 13, and its opposite or front end terminating just below the lower edge of plate 17.

The numeral 19 designates a set screw which passes through the bottom 13 and the upper end abutting against the under side of the plate 18, so that the space between said plate and plate 17, may be increased or decreased to accommodate cards of varying thicknesses.

To the front end of the card rack or holder are secured arms 20, in which is journaled a presser roll 21. By pivoting the card rack to the extension 10, as shown, the rear thereof is the heaviest causing the roller 21 to be elevated and the card fed from the rack to be pressed against the type cylinder.

Resting and slidable upon the bottom 13 is a transverse bar 23, having an inclined lug

24, at its rear edge to which is adjustably secured a feed plate 25, by means of a set-screw 26. The ends of bar 23 pass through and work in horizontal slots 27 in the sides 5 14 of the card rack and one of said ends is provided with a reciprocating feed rod 29, the other end of which is connected with a lever 30 hereinafter described. The rear standards 16, are provided with vertical plates 10 31, for holding the cards in place.

The lever 30 consists of a vertical plate having its ends reduced forming arms 32 and 34, the arm 32, being pivoted to one of the uprights 1, while the lower arm 34, is provided with a hole in which is seated a stud 15 35, on the end of the feed rod 29. Intermediate of its ends, or at the enlarged center, the lever is formed with a peculiarly formed cam opening, forming two triangular teeth or 20 projections 36 and 37, with which engages a stud 39, on a crank 40, fixed to the shaft 41 of the type cylinder.

The type cylinder may be made of any suitable material and is formed with a series of 25 peripheral dovetailed grooves 41^a, to receive the removable type. This cylinder is provided with a covering 42 of soft rubber having formed thereon in relief, the characters which are to be printed, and at the grooves 30 41^a is formed with a series of apertures 45 for the insertion of the rubber type 46.

The object of making the grooves 41^a, dovetailed, is to hold the correspondingly shaped removable type securely in place. These 35 type are made of soft rubber, so as to be compressed into place in the grooves.

The operation is as follows: The cards are placed in the rack, as seen in Fig. 1, and the type cylinder is rotated by means of the crank 40 40, causing the feed bar to be actuated and the feed plate 25, to engage with the lowermost card and force it out through the opening between the plates 17 and 18, when it will be caught between the cylinder and presser roll 21, and be printed with the characters on 45 the type. The movements of the parts are so timed that the card will be presented at the proper moment to the action of the type cylinder which is accomplished by the peculiar shape of the opening in the lever 30, the 50 stud 39, engaging the tooth 36, to move the

feed bar and plate toward the cylinder, and engaging with tooth 37, to return the same to normal.

From the above it will be seen that I provide a very simple and inexpensive press, 55 which will perform its work in a very efficient manner.

Having thus described my invention, what I claim is— 60

1. In a printing press, the combination with the uprights, the type cylinder journaled therein, and the crank secured to the shaft of said cylinder, provided with a stud, of the 65 pivoted card rack having a presser roll at one end, the transverse bar having a feed plate, the feed rod connected with said bar, the pivoted lever connected with said bar and formed with a central cam opening with which said stud engages; substantially as described. 70

2. In a printing press, the combination with the uprights, and the type cylinder, of the pivoted card rack, having a presser roll at one end and the transverse plate at its front end, the spring plate secured to the bottom of rack 75 and the regulating screw; substantially as described.

3. In a cylinder printing press, the combination with the uprights, the inking rollers and the type cylinder having a crank provided with a stud, of the pivoted card rack 80 carrying a presser roll, the transverse plate at the front of said rack, the spring plate secured to the bottom of the rack, the regulating screw, the transverse bar working in slots 85 in the sides of the rack, the adjustable feed plate secured thereto, the feed bar, the pivoted lever connected therewith having a cam opening with which the stud of the crank engages; substantially as described. 90

4. A printing cylinder having a peripheral dovetailed groove, and a cover of soft rubber having characters in relief thereon and formed with a series of apertures registering with said groove; substantially as described. 95

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN H. BARR.

Witnesses:

L. M. ESHORN,
JOHN MCLUCAS.