No. 737,829. PATENTED SEPT. 1, 1903.

J. DURAND.

PRINTING PRESS.

APPLICATION FILED OCT. 20, 1902.

NO MODEL.

Fig. 1.

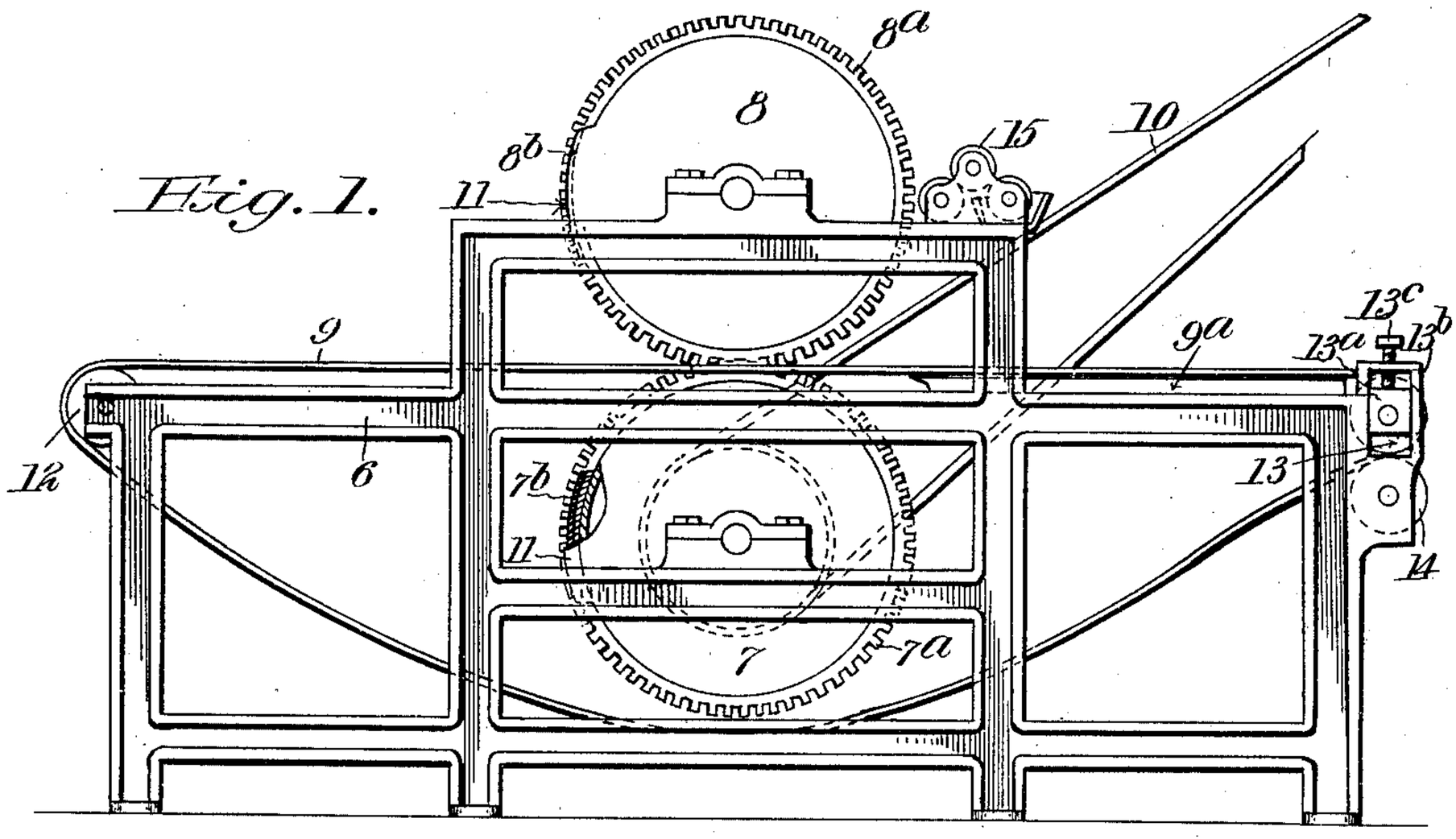
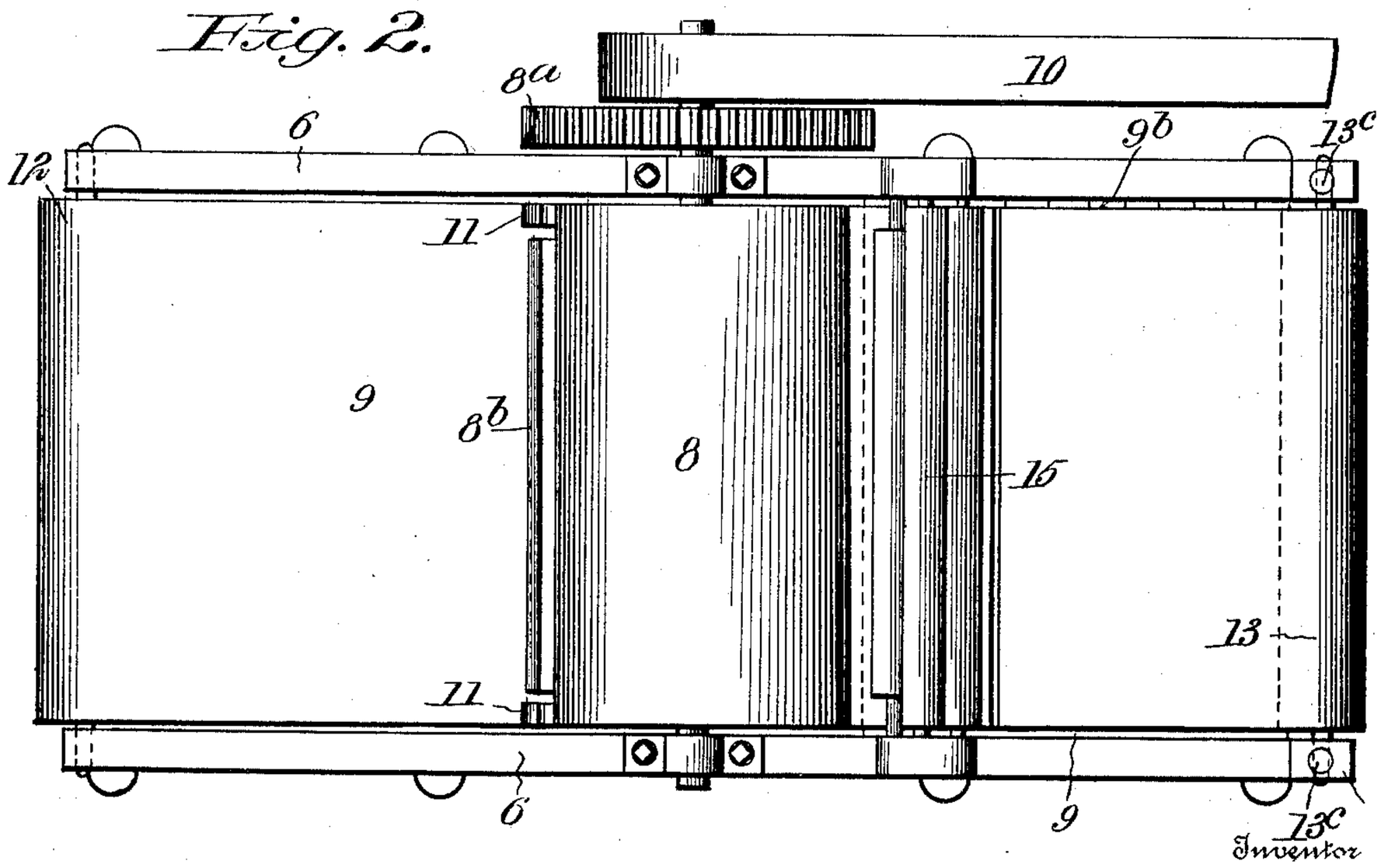


Fig. 2.



Witnesses
C. H. Walker.
Geo. E. Tew

Inventor
John Durand
By Milo B. Stevens & Co
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 737,829. Patented September 1, 1903.

UNITED STATES PATENT OFFICE.

JOHN DURAND, OF UNIONPOINT, GEORGIA, ASSIGNOR OF ONE-HALF TO W. H. C. IVEY, OF UNIONPOINT, GEORGIA.

PRINTING-PRESS.

SPECIFICATION forming part of Letters Patent No. 737,829, dated September 1, 1903.

Application filed October 20, 1902. Serial No. 128,032. (No model.)

To all whom it may concern:

Be it known that I, JOHN DURAND, a citizen of the United States, residing at Unionpoint, in the county of Greene and State of Georgia, have invented certain new and useful Improvements in Printing-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates particularly to printing-presses used to mark hosiery or other cloth articles; and the object thereof is to form a power-machine which will stamp size or other marks on stockings and the like much more rapidly than can be done by hand.

Speaking generally, the machine embodies rotating form and impression cylinders and an intermittent feed-belt, which passes between the cylinders and feeds the articles to a position to receive the stamp of the form carried by the form-cylinder.

In the accompanying drawings, Figure 1 is a side elevation of the machine, and Fig. 2 is a top plan thereof.

Referring specifically to the drawings, 6 indicates the frame of the machine; 7, the impression-cylinder; 8, the form-cylinder, and 9 the feed-belt, which runs over a table 9^a. The form and impression cylinders are of the same size and rotate at the same speed, having meshing spur-wheels 7^a and 8^a, respectively. They may be driven in any suitable manner, a power-belt 10 being indicated in the drawings. The platen or impression-surface of the impression-cylinder is indicated at 7^b. It is preferably formed of sponge-rubber to cushion the pressure and is raised somewhat from the surface of the cylinder, and its width is sufficient to accommodate the form used. The form is indicated at 8^b and may be attached to the cylinder in any suitable manner. It may be locked up in a turtle, or holders may be employed which will take a logotype or a rubber-faced stamp. Of course the form is positioned to meet the platen 7^b at the impression-point.

The feed-belt 9 is preferably formed of leather or other stout material and is driven by contact between two pairs of grippers 11, one of which is at each end of the cylinders beside the form and platen. The length of the grippers is equal to the feed desired, which is at least equal to the length of the form. The belt is out of driving contact with the form and impression cylinders and at rest, except during the impression period, when the grippers meet and the form 8^b meets the platen 7^b. Hence an intermittent motion is given the feed-belt, and inasmuch as the length of the grippers is but a small fraction of the circumference of the cylinders the belt is at rest during most of the period of rotation. From the cylinders the belt extends over a plain roller 12 at the rear of the machine and thence forwardly under the impression-cylinder and between a pair of tension-rollers 13 and 14, whence it returns to the cylinders over the table 9^a. The journal-boxes 13^a at the ends of the roller 13 slide in brackets 13^b, and the tension is regulated by set-screws 13^c, bearing against the boxes.

Inkers are indicated at 15 applying ink to the form each time it comes around.

In the operation of the machine the stockings or other articles are laid on the belt during the time it is at rest, and to properly position the articles according to the length of feed the table is marked, as at 9^b, at the edge of the belt to indicate the place of the successive articles. The intermittent feed is of great advantage, since it provides a period of rest during which the stockings can be placed and enables the machine to be run much faster than if the feed-belt traveled continuously. If the feed-belt were running all the time, it would be a matter of impossibility for an operator to put the stockings down at any great speed in the right place; but with this machine the belt is so long at rest compared to the speed of the cylinders that a very high speed can be made and an experienced feeder can mark from two thousand five hundred to four thousand stockings per hour with my

machine. The tension-rolls serve to prevent the belt being carried or driven after it is released by the grippers.

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

1. In a printing-machine, in combination, form and impression cylinders which rotate continuously and form a printing-couple intermittently, and an intermittent feed-belt which passes between the cylinders and moves during the printing period only.

2. In a printing-press, the combination with continuously-rotating form and impression cylinders which form a printing-couple intermittently, of an intermittent feed-belt passing therebetween and driven thereby only during the impression period.

3. In a printing-press, the combination of rotary form and impression cylinders, an intermittent feed-belt passing therebetween and a feeding-table under the belt having spaced guide-marks proportioned to the length of the feed.

4. In a printing-press, the combination with rotary cylinders forming a printing-couple intermittently, of a feed-belt passing between the cylinders, and driven at the same speed as the cylinders during the impression period and at rest during the remainder of the period of rotation.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN DURAND.

Witnesses:
W. H. C. IVEY,
H. D. O'NEAL.