

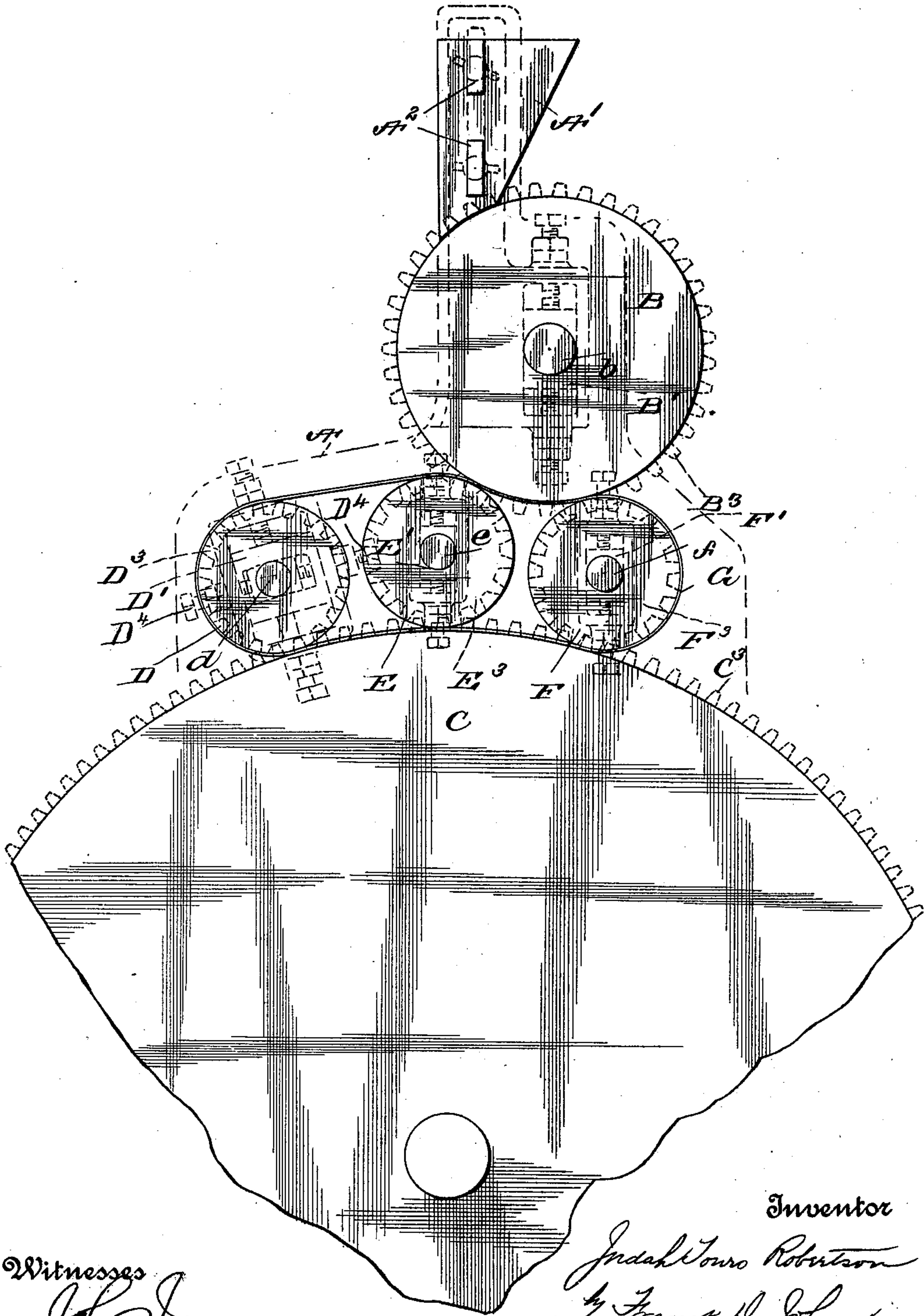
(No Model.)

J. T. ROBERTSON.

INKING DEVICE FOR PLATE PRINTING PRESSES.

No. 592,664.

Patented Oct. 26, 1897.



Witnesses

*John L. Amme*  
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# UNITED STATES PATENT OFFICE.

JUDAH TOURO ROBERTSON, OF NEW YORK, N. Y.

## INKING DEVICE FOR PLATE-PRINTING PRESSES.

SPECIFICATION forming part of Letters Patent No. 592,664, dated October 26, 1897.

Application filed February 20, 1895. Serial No. 539,084. (No model.)

*To all whom it may concern:*

Be it known that I, JUDAH TOURO ROBERTSON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Inking Devices for Plate-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.

My invention relates to automatic inking devices for plate-printing presses and is designed to provide certain improvements in the construction of such devices that will accomplish a thorough application of ink to the printing-form. This object I accomplish by applying the ink from a suitable ink fountain or hopper to the plate-carrier through an intermediate belt carried in engagement with the plate-carrier by a series of three or more independently-adjustable rollers, whereby certain novel and useful results are obtained, as hereinafter specifically set forth.

Referring to the accompanying drawing, the figure is a vertical section of a rotary plate-printing press having my improved construction applied thereto, only such parts of the press being shown as are deemed necessary to a full understanding of the invention.

In the said drawing the letter A indicates part of the press-frame, the same being shown in dotted lines, in which is mounted a suitable ink fountain or hopper A', supported upon adjustable brackets A<sup>2</sup>. Located beneath the same and adapted to receive ink therefrom is a fountain or ink-receiving roller B, the same being mounted on a shaft *b*, carried in adjustable journal-boxes B', as shown. Located between said roller B and the cylinder C, carrying the engraved plates, is a series of smaller rollers D, E, and F, preferably three in number, around which passes an inking-belt G. These rollers are mounted, respectively, on the shafts *d*, *e*, and *f*, the latter being carried in adjustable journal-boxes D', E', and F', respectively, to provide for the independent adjustment of said rollers to and from the plate-cylinder C. The shaft *d* of roller D is also provided with additional adjusting-screws D<sup>4</sup> to provide for its adjustment to or away from the rollers E and F, whereby the

tension of the belt G may be regulated. Any other well-known means for adjusting these rollers may be used, if desired.

The rollers E and F are provided with gears E<sup>3</sup> and F<sup>3</sup>, in mesh with a gear B<sup>3</sup> on roller B, and also with a gear C<sup>3</sup> on the plate-cylinder C. The roller D is also provided with a gear D<sup>3</sup>, meshing with gear C<sup>3</sup> only, thus providing a uniform speed of rotation for said rollers D, E, and F. Moreover, the vertical adjustment of the roller B affords a means for varying its surface of contact with the belt G, as will be readily understood. While the above-described gearing is deemed to be preferable, any other suitable means—such, for instance, as belting—may be employed, provided the relative speeds of the various parts be preserved, as described.

From the above description the operation of my improved construction will be understood to be as follows: The roller B receives the ink from the fountain or hopper A and transfers it to the inking-belt G, thoroughly distributing it upon the face of said belt, which in turn as it revolves deposits the ink upon the face of the engraved plates in a thin film and by means of the rollers forces it fully into the engraved lines. By the use of the intermediate independently-adjustable roller or rollers I am enabled to apply a strong pressure to the belt at such intermediate point or points, thus insuring a thorough filling of the engraved lines, while a lighter pressure applied by the end rollers will lead the belt gradually away from the plate. This construction effectually prevents any lifting out of the ink from the engraved lines, which would occur if a like pressure were applied to a series of rollers employed without a belt.

While I have shown and described a series of three rollers, I may, if desired, employ a greater number.

I have described my invention as applied to a rotary press, with which it is especially designed to be used; but it is apparent that with slight changes in no way departing from the scope of the said invention it may be applied with equal advantage to a flat-bed press.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an inking device for plate-printing



presses, the combination with a plate-carrier, an inking-belt, and means for inking the belt, of a series of pressure-rollers consisting of end rollers and one or more intermediate rollers all engaging said inking-belt and forcing the same against the plates supported by the carrier, substantially as set forth.

2. In an inking device for plate-printing presses, the combination with a fountain or ink-receiving roller, and a plate-carrier, of a series of pressure-rollers consisting of end rollers and one or more intermediate rollers all bearing against the plates supported by the carrier, and an endless inking-belt carried by said pressure-rollers and interposed between the same and the plate-carrier and receiving ink from the fountain-roller and transferring it to the plates, substantially as set forth.

3. In an inking device for plate-printing

presses, the combination with a fountain or ink-receiving roller, and a plate-carrier, of a series of pressure-rollers consisting of end rollers and one or more intermediate rollers all bearing against the plates supported by the carrier, means for adjusting said pressure-rollers to or from the plate-carrier and the end rollers thereof to or from each other, and an endless inking-belt carried by said pressure-rollers and interposed between the same and the plate-carrier and fountain-roller and receiving ink from said fountain-roller and transferring it to the plates, substantially as set forth.

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

JUDAH TOURO ROBERTSON.

Witnesses:

WARREN L. GREEN,  
ANDREW V. STOUT.