

No. 692,350.

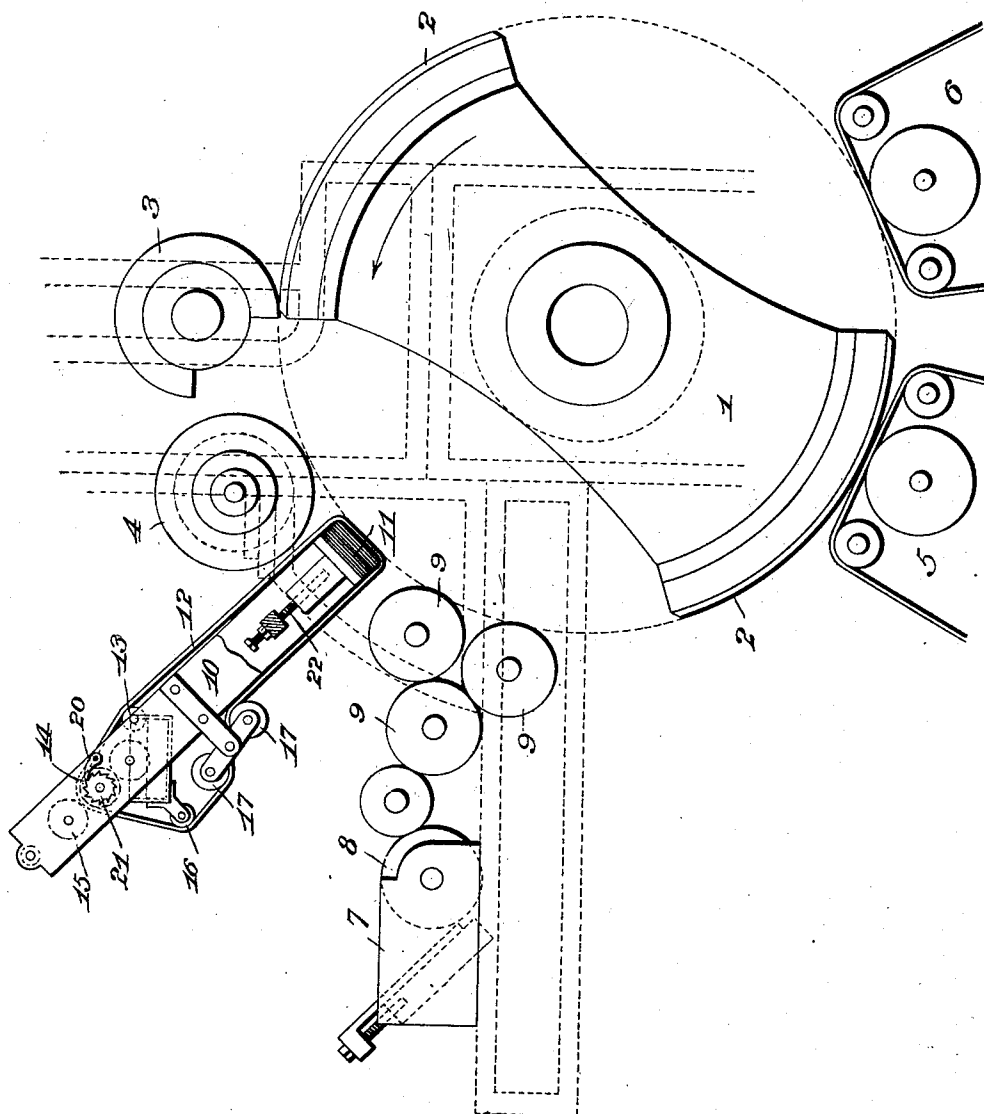
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A. REID.

ATTACHMENT FOR PLATE PRINTING PRESSES.

(Application filed May 29, 1900.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR PLATE-PRINTING PRESSES.

SPECIFICATION forming part of Letters Patent No. 692,350, dated February 4, 1902

Application filed May 29, 1900. Serial No. 18,402. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER REID, a citizen of the United States, residing at Jersey City, in the county of Hudson, State of New Jersey, have invented new and useful Improvements in Attachments for Plate-Printing Presses, of which the following is a specification.

My invention relates to plate-printing presses, and has for its object to provide means for applying to the surface of the plate a film of liquid for the purpose of preventing the smooth or unengraved portions of said plate from taking up any ink during the usual inking operation. This object I accomplish by locating intermediate the impression-point and the inking-point of the press a dampening device, substantially as hereinafter described and claimed, reference being had to the accompanying drawing, in which the figure is a side elevation of a rotary plate-printing press having my improved mechanism applied thereto, the press-framework being shown in dotted outline.

In the said drawing the reference-numeral 1 denotes the plate-cylinder, carrying two plates 2, above which is located the usual impression-cylinder 3. To the rear of said impression-cylinder is mounted a gripper-cylinder 4 of any desired type—as shown, for instance, in Letters Patent to J. T. Robertson, No. 622,168—while on the under side of the press are located the wiping mechanism 5 and polishing mechanism 6. The inking mechanism is located on the rear side of the plate-cylinder and consists of the usual ink-fountain 7, fountain-roll 8, and ink-rolls 9. All of the above-described parts may be of any desired construction and form no part of the present invention.

Intermediate the gripper-cylinder 4 and inking mechanism is located a carrier 10, in which at a point in the path of travel of the plates 2 is a soft flat pad 11, of any suitable material, over which passes a belt of fabric 12, preferably shirting-muslin, which is carried up over guide-roll 13 between a moistening-roll 14 and squeezing-roll 15, and thence downward over guide-roll 16 and tension-roll 17

and over the face of pad 11 again. The moistening-roll 14 receives its liquid from a feed-roll 18, rotating in tank 19, as will be readily understood. A pawl 20, operated by any suitable mechanism from the press and engaging with a ratchet-wheel 21 on one end of the moistening-roll 14, serves to intermittently rotate the latter, so as to present a fresh-wetted surface of the belt 12 to each plate 2, the operation being such that said belt is stationary while a plate is passing in contact therewith. A suitable adjusting-screw 22 serves to adjust the pad 11 in its relation to the plates 2.

From the above description the operation of my invention will be understood to be as follows: In the rotation of the press each plate 2 delivers its impression to the paper fed therein and passes on to the ink-train, before reaching which, however, it passes the wetted belt 12, pressed in contact therewith by the pad 11, from which it receives a film of liquid sufficient to cover the polished or unengraved surface of the plate, but not sufficient to enter the engraved lines. The plate then passes on to the inking-rolls 9, from which it receives the ink in the usual manner. It will be found, however, that the polished or unengraved portions of said plate will retain substantially none of the ink deposited thereon, though the engraved lines of said plate, where the ink is desired, will be properly filled with the ink. The plate is then subjected to a slight wiping and polishing action in order to obtain a perfect impression, for the reason that the ink deposited in the engraved lines will when deposited in quantity sufficient to insure a proper inking project slightly above the surface of the plate and will present a rough and uneven surface, which is readily removed by the wiper 5, leaving the surface of the ink even with the surface of the plate. The polisher 6 then imparts the desired finish to the plate, and it is ready to be printed from.

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

1. In a plate-printing press, a dampening

device adapted to contact with the plate and located intermediate the impression-point and the inking mechanism for depositing a film of liquid on said plate before it receives the ink, substantially as set forth.

2. In a plate-printing press, the combination with the plate-carrier, the impression-surface, the inking mechanism, and wiping and polishing mechanism, of a dampening device lying in the path of travel of the plate and located intermediate the impression-surface and the inking mechanism for depositing a film of liquid on said plate before it receives the ink, substantially as set forth.

3. In a plate-printing press, the combination with the plate-carrier, the impression-

surface, the inking mechanism, and wiping and polishing mechanism, of a dampening band or belt lying in the path of travel of the plate and located intermediate the impression-surface and the inking mechanism, means for carrying said band or belt in contact with the plate, and means for wetting said belt, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALEXANDER REID.

Witnesses:

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HEIMONA FEINSTEIN.