

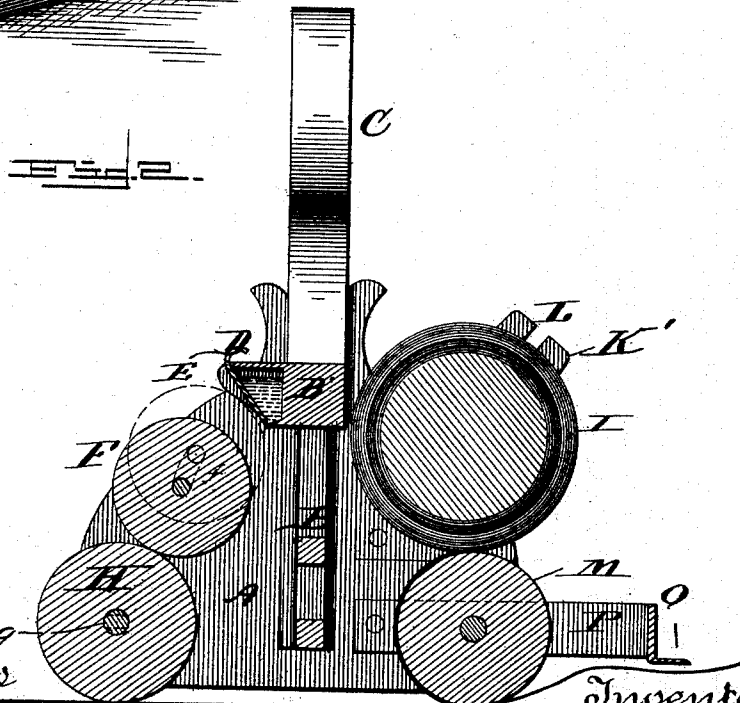
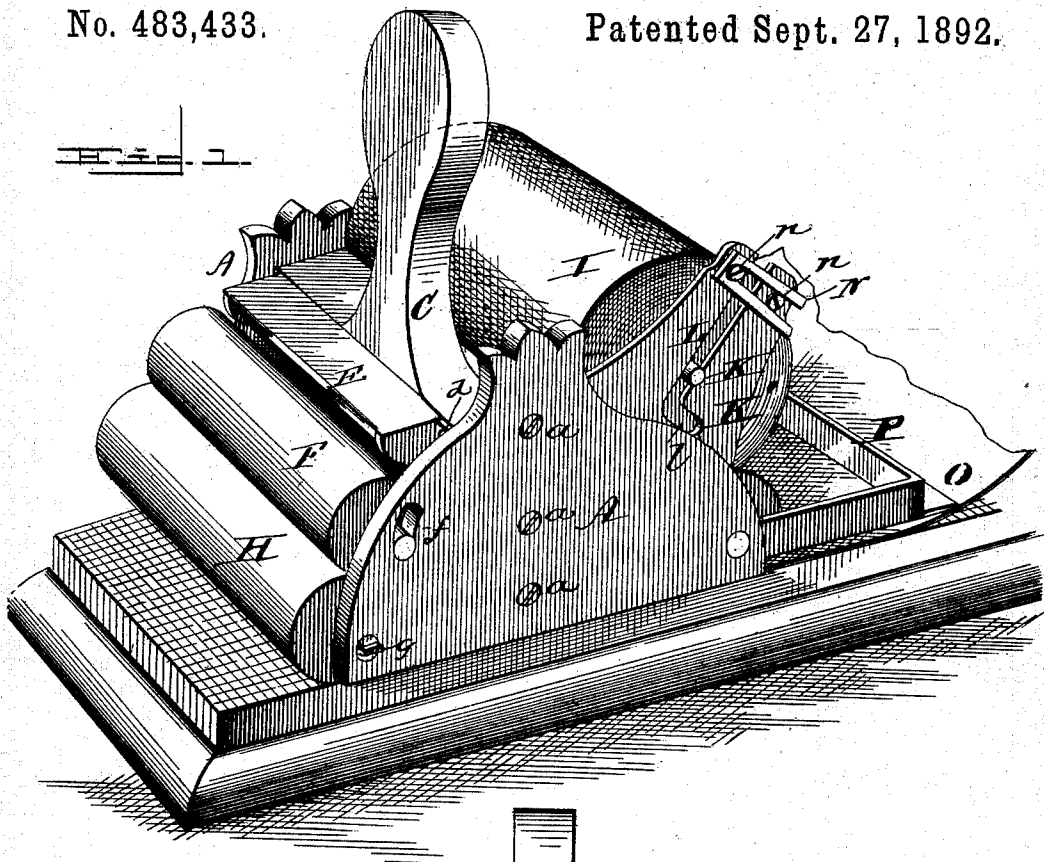
(No Model.)

2 Sheets—Sheet 1.

N. G. DUFFY.
PROOF PRESS.

No. 483,433.

Patented Sept. 27, 1892.



Witnesses
A. L. Harman
W. E. McLeod.

Inventor.
Nicholas G. Duffy
By Attorneys, Connolly & Co.

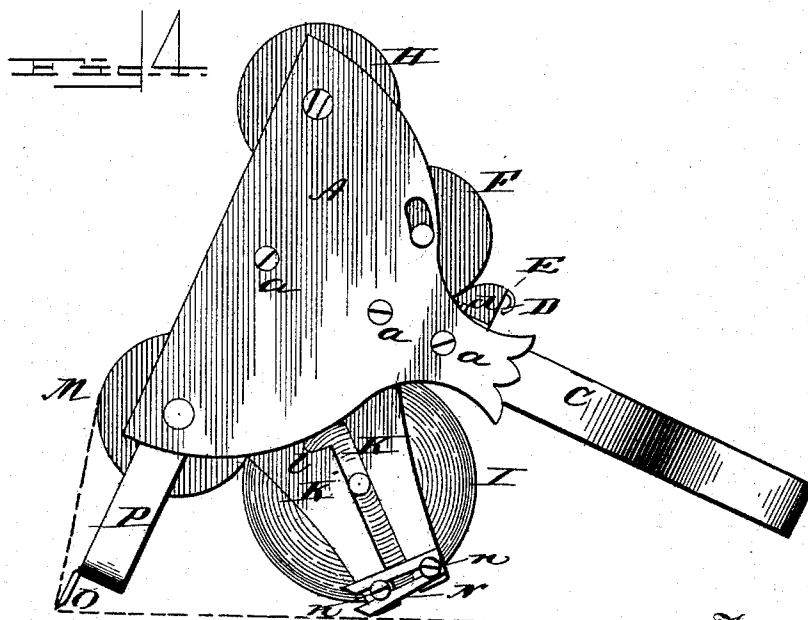
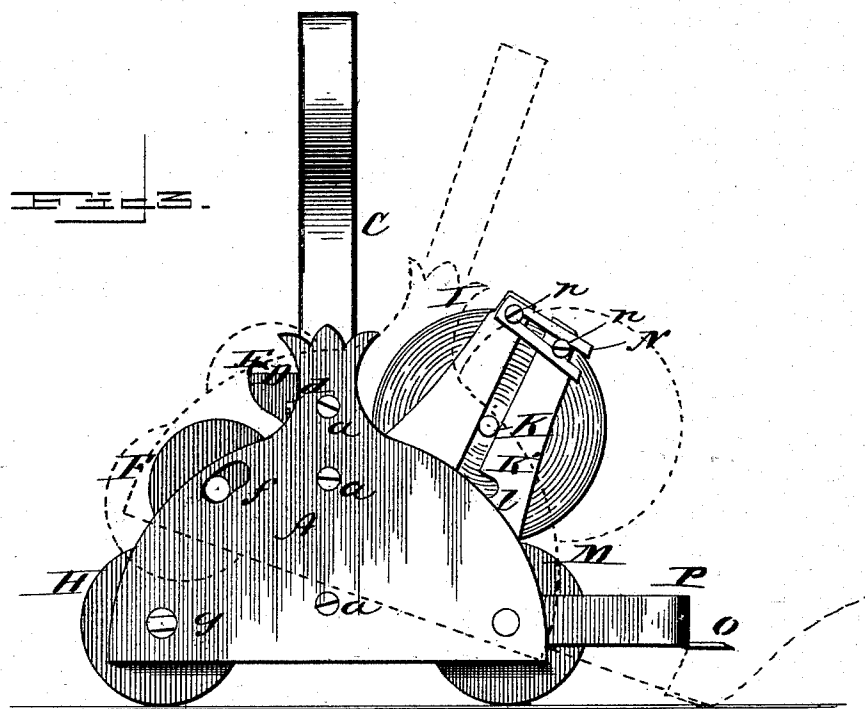
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UNITED STATES PATENT OFFICE.

NICHOLAS G. DUFFY, OF CHARLESTON, SOUTH CAROLINA.

PROOF-PRESS.

SPECIFICATION forming part of Letters Patent No. 483,433, dated September 27, 1892.

Application filed May 12, 1892. Serial No. 432,778. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS G. DUFFY, a citizen of the United States, residing at Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Proof-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.

This invention has relation to a combination proof-press for the use of printers, lithographers, engravers, or designers, and has for its object the provision of a novel machine or apparatus for the purpose of taking proofs of all "forms" that require reading of type after being composed, or for taking proofs of cuts, engravings, lithographs, or the like.

This invention consists in the novel construction and combinations of parts constituting a portable manually-operated proof-press by which printers' matter—such as forms of type, cuts, engravings, &c.—may be easily, neatly, and uniformly inked and impressions taken therefrom at one and the same continuous operation.

This invention also consists in the combination, with an apparatus or machine of the character referred to, of a suitable ink-fountain and ink feeding and distributing appliances, and, furthermore, in the combination therewith of a paper-cutting blade by means of which galley-slips unwound from a reel of paper carried upon the machine may be severed or cut off evenly after having been printed.

In the accompanying drawings, Figure 1 is a perspective view of my improved proof-press in operation. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is an end view showing in dotted lines the press tilted backward as required in the act of cutting the paper. Fig. 4 is an end view showing the position the press should rest in when not in use.

The apparatus in its entirety comprises a suitable supporting-frame having an upright handle by which it is manipulated, an inking-roller, an ink feeding and distributing roller, an ink-fount, a paper reel or roll, an impression-roller, and a paper-cutting blade.

A A designate the side plates of the frame, which are conveniently made of approximately-semicircular shape and which are secured by screws *a* to a vertically-arranged transverse partition or connecting-web B and to a transverse bar B', from the middle part of which rises a suitable handle C.

D designates the ink-fount, which consists of an elongated trough of triangular form in cross-section and which is secured to the transverse bar B' by means of screws *d d*, passing through lugs formed on the ends of the trough. The opening of the trough is on the inclined side or face of the fount and is provided with a sliding gate E, by means of which the flow of ink to the distributing-roller may be regulated.

F designates the ink feeding and distributing roller, journaled in curved slots *f f* in the side plates A A and located with its axis below and slightly forward of the ink-fount. This roller is journaled in slots, so that it will have a certain amount of play, allowing it when the machine is in operation to rest upon the inking-roller and when the machine is out of use and resting in the position shown in Fig. 4 to fall back against the ink-fount and out of contact with the inking-roller, thereby avoiding an impression being made in the composition inking-roller, such as would occur if the wooden distributing-roller were allowed to rest against the inking-roller for any length of time.

H designates the inking-roller, which is of the usual composition and which is journaled to the side plates A A below and forward of the ink-distributing roller. One end of the shaft of the inking-roller projects beyond the frame of the apparatus and is squared, as shown at *g*, for the application of a crank or handle by which the inking-roller is turned when it is desired to spread ink upon it from the distributing-roller. The inking-roller projects below the side plates A A, so as to contact with and ink the form.

I designates the paper reel or roll, mounted on a shaft K, which has its bearings in slots L L in the oblique plates K' K', secured to the side plates A A and rising therefrom in the rear of the handle C. Below the paper

reel or roll is arranged the felt-covered impression-roller M, journaled in the side plates A A of the machine, at the rear end thereof, in a position corresponding to the position of the inking-roller H. The paper from the reel or roll is led downward inside the impression-roller M and back underneath the same. The paper reel or roll is intended to rest upon the impression-roller, and in order to do so, notwithstanding the diminution of the diameter of the paper roll or reel, the shaft of the latter has its bearings in the oblique slots L L, which slots at their lower ends are branched or diverted rearwardly and downwardly, as shown at l l, so that the paper reel or roll will rest upon the impression-roller until all the paper is exhausted. The slots L L are open at their upper ends to receive the shaft of the paper reel or roll, and after the reel or roll is inserted in position the ends of the slots are barred by the forked keys N N, which slide upon and are locked by the screws n n.

O designates the paper-cutting blade, which consists of a horizontal sharp-edge plate formed on or attached to a frame P, which projects horizontally from the rear ends of the side plates A A, nearly on a line with the axis of the impression-roller M.

Operation: The position of the apparatus when in use is clearly shown in Fig. 1 of the drawings. In inking and taking an impression from a form the machine is rolled forward on the type from one end of the form to the other, the inking-roller traveling ahead of the impression-roller and paper and the free end of the latter being held taut. As the machine is pushed forward the form is inked and the paper unrolling from the roll or reel is gradually pressed down upon the inked type by the impression-roller until the end of the form is reached by the cutting-blade. The machine is then tilted back until the cutting-blade rests upon the paper, as shown in Fig. 3. The paper is then raised and torn off sharply against the edge of the blade.

The frame of the press, as will be seen, is supported entirely and solely by the inking-roller and impression-roller and that these rollers extend below the lower margins of the frame. The rollers are therefore rotated solely by frictional contact with the type or other surface over which the press may be passed. There is therefore no sliding or rubbing motion of the rolls on the type or impression-surface, as might result from having the rollers rotated by other means than frictional contact with the impression-surface. Again, by having the impression and printing rollers free and projected below the frame or its appurtenant parts the press may be used for inking and taking impressions from forms of any size, either narrower or wider than the press.

Extra rolls of paper may be supplied in any quantity and readily secured in position on the machine, and when duplicate proofs are

needed, as on newspaper-work, for counting type of compositors, the white roll of paper usually employed may be supplemented by a roll of colored paper, which is substituted for the white paper in taking the second proof.

The advantages of my improved proof-press over the methods now in use for taking proofs are many. Proofs of galleys or jobs may be taken with less labor and can be secured more rapidly than with the appliances now in use. Proofs of galleys may be even taken on stands, if desired, and the great cleanliness and neatness of the press commends it to the practical printer, engraver, or lithographer. Its use saves time, saves labor, saves paper, saves ink, avoids dirt, and economizes room-space.

The press may be manufactured cheaply and of different sizes to suit the different conditions under which it will be serviceable.

Having described my invention, I claim—

1. In a proof-press, the combination, with the carriage or frame, of the ink-fount D, mounted on the frame, the ink-distributing roller F, journaled in the frame below the ink-fount, the paper-reel shaft K, also journaled in the frame, the impression-roller M, and the inking-roller H, both journaled in the frame and in such position that the peripheries thereof project below the bottom of the frame, whereby the said inking and impression rollers constitute the sole support and bearing of the press, substantially as described.

2. In a proof-press, the combination of a suitable frame, an ink-distributing roller, and a paper-reel shaft, both journaled in the said frame, with an inking-roller and an impression-roller journaled, respectively, at the front and rear of the frame and at such points that the peripheries of both project below the lowest part of said frame, substantially as described.

3. In a proof-press, the combination, with a frame or carriage mounted on and supported by an inking-roller and an impression-roller, of an ink-fount arranged above the inking-roller, and an ink-distributing roller journaled in elongated bearing-slots between the ink-fount and the inking-roller, whereby when proof is being taken the distributing-roller will bear on the inking-roller out of contact with the ink-fount and when the carriage is turned over said distributing-roller will rest against the ink-fount out of contact with the printing-roller, substantially as described.

4. In a proof-press, the combination, with a frame or carriage mounted on an inking and an impression roller journaled in the frame at such positions that the peripheries of both project below the bottom of the frame and having a distributing-roller above and normally in contact with the inking-roller, of an ink-fount located above the distributing-roller and consisting of a transversely-arranged trough provided with a sliding gate on its lower and open side, whereby the flow

of ink to the distributing-roller may be regulated, substantially as described.

5 5. In a proof-press consisting of a frame or carriage mounted on and supported solely by an inking-roller and an impression-roller and capable of being tilted upon the fulcrum formed by the impression-roller, and a rectangular frame projecting rearwardly from the proof-press and having a sharpened lip or

flange on its lower edge, substantially as described.

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

NICHOLAS G. DUFFY.

Witnesses:

LOUIS S. DURBEC,
EDW. N. WOOD.