

(No Model.)

M. W. FISHER.

INK ROLLER LIFTING DEVICE FOR CYLINDER PRINTING PRESSES.

No. 451,372.

Patented Apr. 28, 1891.

Fig. 1.

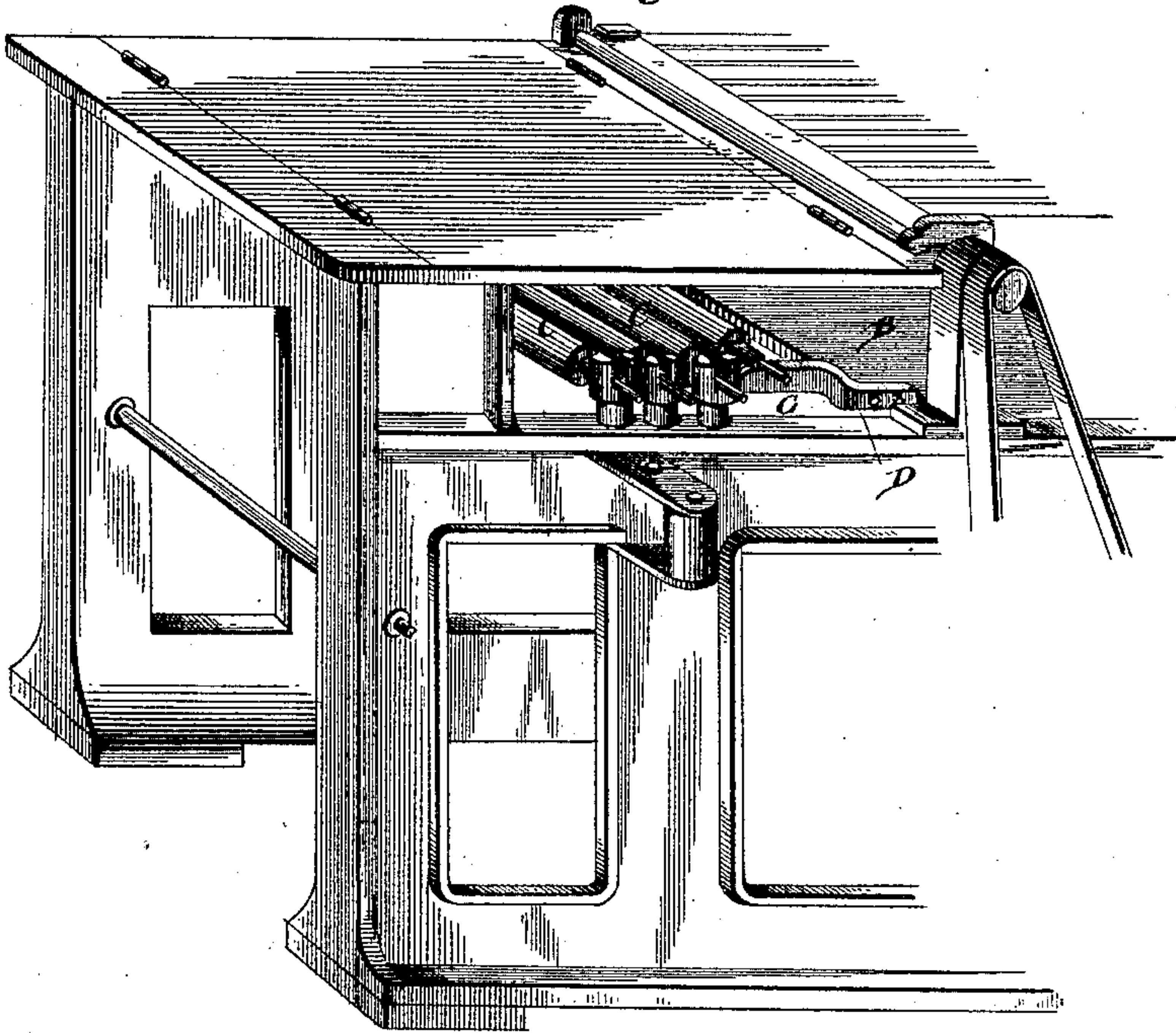


Fig. 2.

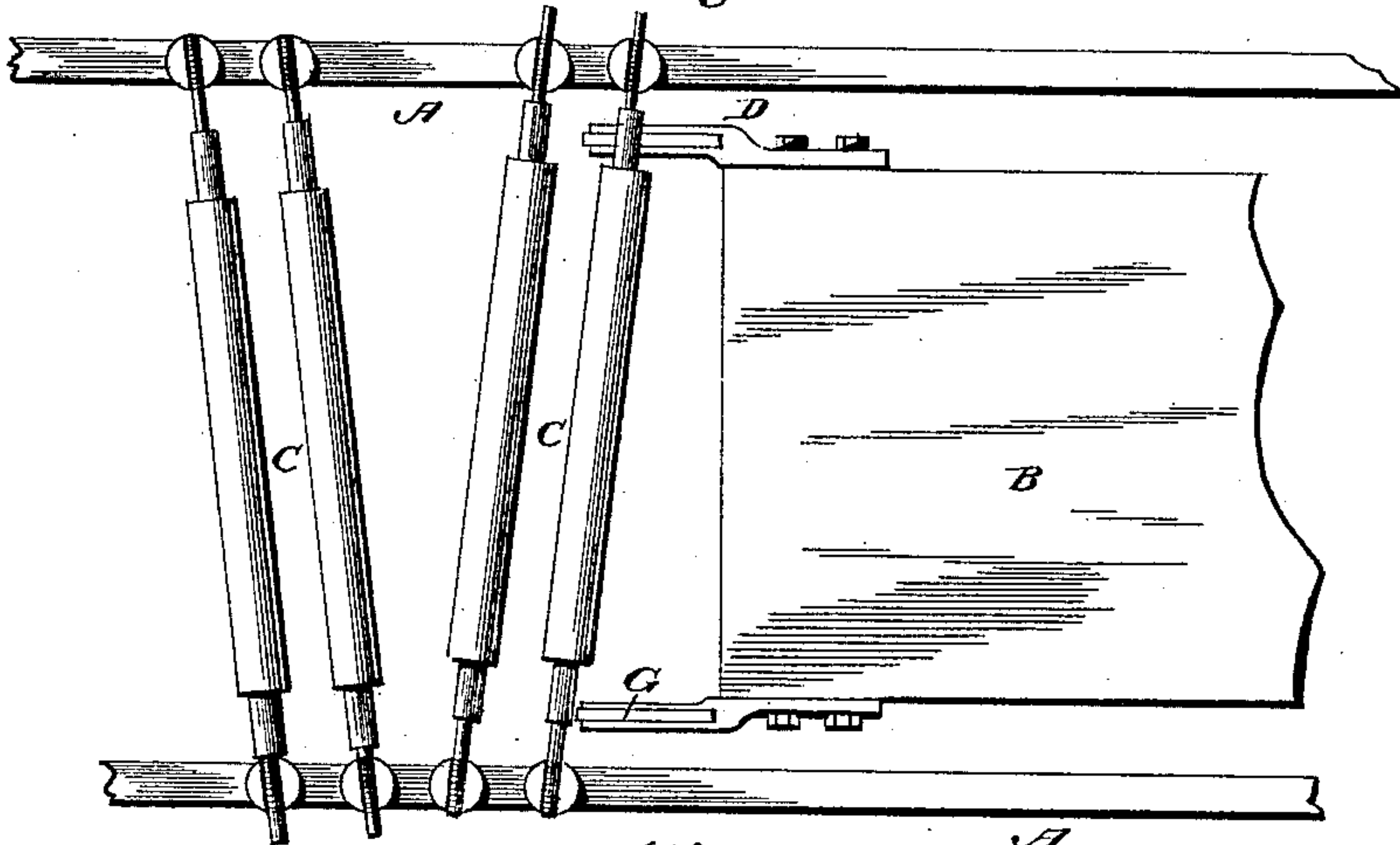
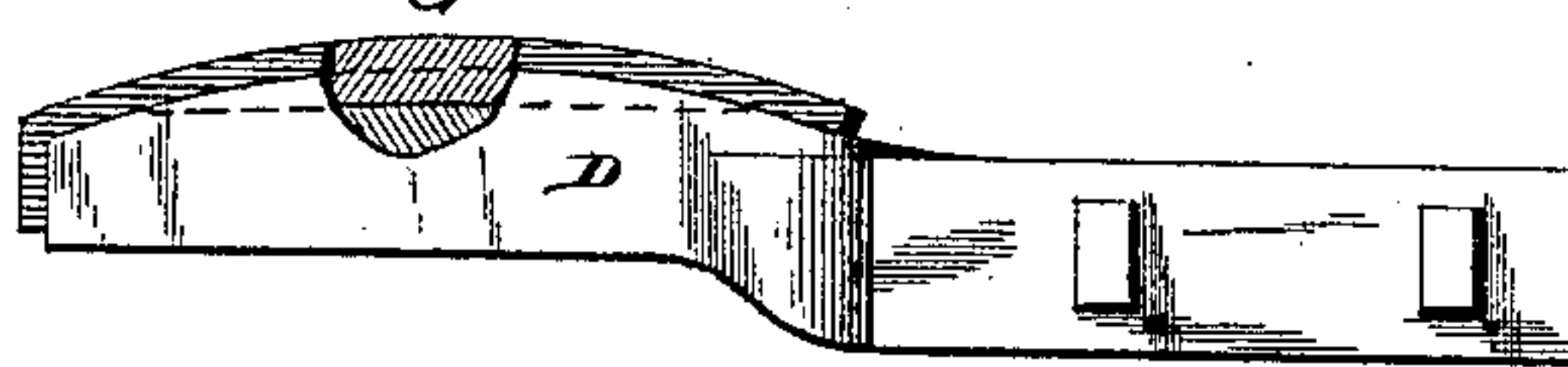


Fig. 3.



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UNITED STATES PATENT OFFICE.

MELVIN W. FISHER, OF YORK, PENNSYLVANIA.

INK-ROLLER-LIFTING DEVICE FOR CYLINDER PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 451,372, dated April 28, 1891.

Application filed December 11, 1890. Serial No. 374,393. (No model.)

To all whom it may concern:

Be it known that I, MELVIN W. FISHER, of York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Cylinder 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in ink-roller-lifting devices for cylinder printing-presses; and it consists in the combination, construction, and arrangement of parts which will be fully described hereinafter, and pointed out in the claim.

The object of my invention is to apply to one or both ends of the bed-plate lifting devices having cushions which catch under the journals of the angle-rollers and raise them sufficiently to allow the end of the bed to pass under them without the danger of having the bed to cut the soft surfaces of the rollers, as is always the case where the bed is reciprocating rapidly and strikes the rollers forcibly at every movement.

Figure 1 is a perspective of a portion of a printing-press to which my invention is applied, the journal for one of the rollers being omitted. Fig. 2 is a plan view of a bed-plate, showing the arms attached to opposite corners. Fig. 3 is a perspective of one of the arms detached.

A represents the frame of a printing-press of any suitable construction; B, the bed-plate, and C the angle-rollers, which distribute the ink evenly over the bed-plate in the usual manner. Where the bed-plate reciprocates rapidly back and forth under the rollers, it first strikes the soft sides of their surfaces and raises them, and then as it moves in the opposite direction it passes from under them, leaving them revolving rapidly in the direction in which the bed-plate has moved, and then, before this revolving motion has had time to cease, the bed-plate then strikes them and with sufficient force to not only stop the revolving motion, but to raise the rollers sufficiently high to again allow the bed-plate to pass under them. The striking of the end of

the bed-plate against the rollers cuts and breaks the rollers, so that a set of them seldom lasts longer than a month. When the rollers are first placed in position, they are of greater diameter than later on, when they have become shrunk, and hence the new rollers must be raised higher by their bearings than the older ones, and the bearings must be changed from time to time to accommodate rollers of different sizes. This requires adjustable bearings and frequent attention on the part of the pressman not only to prevent the rollers being unnecessarily injured, but also to so adjust the rollers that they will properly distribute the ink.

In order to prevent the end of the bed-plate from striking the rollers and injuring them, I attach in any suitable manner to opposite corners of the bed-plate the two arms D, which are provided with slots at their inner ends, so that they can be adjusted in any desired position, and which arms are curved or rounded to any desired extent upon their upper surfaces, where they extend beyond the ends of the bed-plate. The upper surfaces of the arms are grooved, and in these grooves are placed strips of leather G, which extend longitudinally with the arms and which are secured in position in any suitable manner. These strips of leather form a cushion or soft bearing upon the arms where they catch under the journals of the rollers, and thus prevent any unnecessary noise or jarring of the parts, as would be the case if metal struck metal. The outer ends and upper surfaces of these arms being curved, as shown, they catch under the journals of the rollers in advance of the ends of the bed-plate and raise the rollers sufficiently high to allow the bed-plate to pass under the rollers, and then the rollers are lowered upon the bed-plate just beyond its outer edge, where they act upon and distribute the ink in the usual manner. If a double reciprocating press is used, the arms will be attached to the bed-plate at both ends; but whether attached to one or both ends the use of the arms is to travel in advance of the end of the bed-plate to raise the rollers sufficiently far to prevent them from being injured, as above described.

The arms here shown are adapted to be attached to any of the reciprocating bed-plates

now in use without the slightest alteration, unless it is to groove the journals of the fountain-roller sufficiently to allow the arms to pass under it without disturbing it in any
5 manner.

Having thus described my invention, I claim—

10 An attachment for the bed-plates of printing-presses, consisting of an arm having the upper surface of its outer end curved upward and having a longitudinal recess therein and

a cushion placed in the said recess, the inner end of the arm having perforations for the passage of securing-bolts, substantially as specified.

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

MELVIN W. FISHER.

Witnesses:

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