J. H. ROBINSON.

MACHINES FOR DRESSING THE FLY-BARS OF PAPER MILL ROLLS.

No. 190,373. Patented May 1, 1877.

Fig. 1

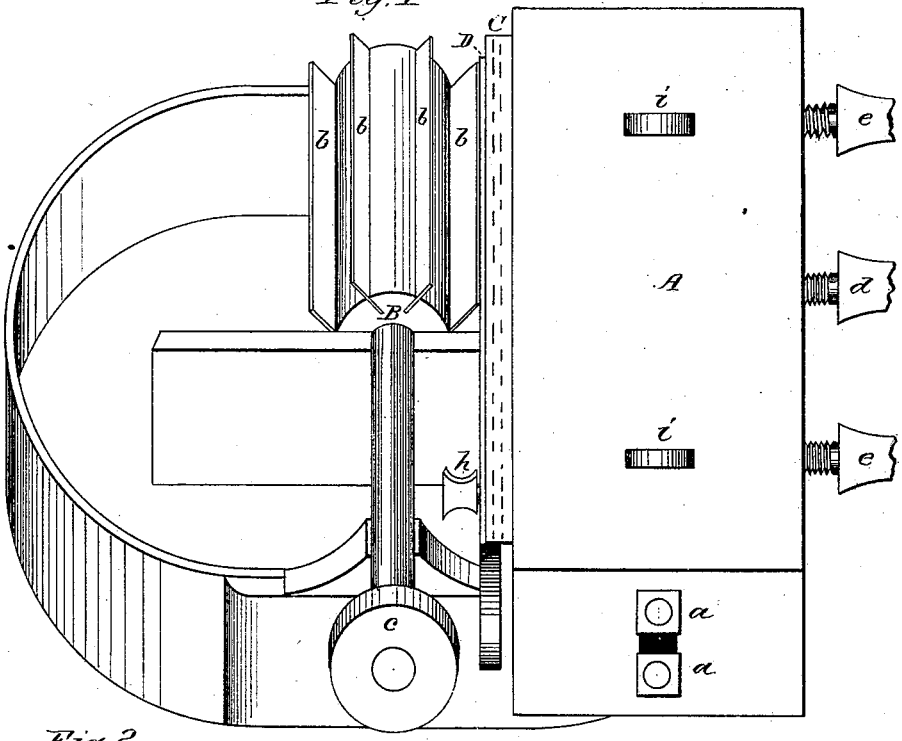


Fig. 2.

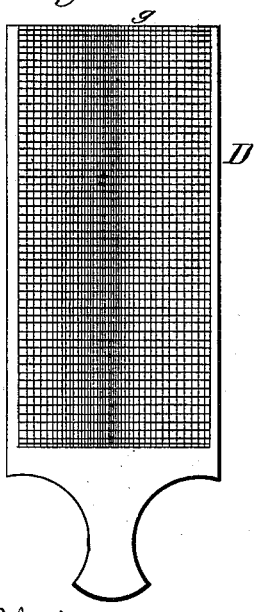
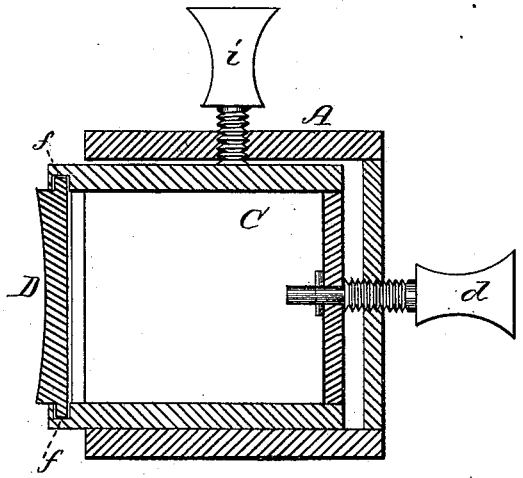


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES H. ROBINSON, OF CHRISTIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES ARTHUR, OF NEW LONDON TOWNSHIP, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR DRESSING THE FLY-BARS OF PAPER-MILL ROLLS.

Specification forming part of Letters Patent No. **190,373**, dated May 1, 1877; application filed April 5, 1877.

To all whom it may concern:

Be it known that I, JAMES H. ROBINSON, of Christiana, in the county of Lancaster and State of Pennsylvania, have invented a new and valuable Improvement in Machines for Dressing Fly-Bars of Paper-Mills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a perspective view of my invention, showing it applied to an engine having the roll with fly-bars. Fig. 2 is a longitudinal vertical section; and Fig. 3 a detached view of the file-blank.

This invention has relation to devices for dressing the fly-bars of paper-mill rolls, and the object and purpose is to provide a means for dressing said fly-bars perfectly and evenly, so that they will be of uniform length, and parallel to the axis of the roll, thereby preparing a roll for working in much less time than is usually occupied for that purpose, and doing the work more accurately than can be done by the methods now in use.

My invention, therefore, consists in a plate of steel, having a concave face, and having file-like grooves, said plate being connected to a box, which is made adjustable to or from the fly-bars, as will be hereinafter described, and subsequently pointed out in the claims.

In the accompanying drawings, A represents a suitable frame, having clamping-screws and nuts *a*, by which it may be secured to the frame of the engine, in order to bring it in the desired position in relation to the fly-bars *b* of the roll B, said roll being rotated by any suitable power connected with belts over a pulley, *c*. It will, however, be understood that as the fly-bars and roll, with its several connecting parts, form no part of my invention, further description of their construction is deemed unnecessary.

The frame A carries within it a box, C, which is made to move forward and backward by a feed-screw, *d*, the threads of which engage with a screw, opening in the back of the frame, said screw being rigidly connected to the back of the box C. After being thus adjusted, the box is held in the desired position by set-screws *e* at the back and at both ends of the frame. The box C is formed with suitable grooves *f*, for the reception of a concave steel plate, D, the face of which has carefully-cut file-like grooves *g*. This plate may be of any desired length corresponding to the length of the fly-bars to be dressed, and the concavity of the plate is the segment of a circle which should be equal to the radius of the outer edge of the fly-bars when fixed in the roll; and after the plate has had the grooves cut in it, it is hardened similar to a file. The plate D can be moved forward or backward at pleasure, and may be made stationary by a pin, *h*, passing through the same and into the edge of the box C.

The object in employing a box for holding the plate is to have sufficient space behind the plate D for the purpose of keeping the same cool while in operation, and the box C is held firmly within the frame A, after being properly adjusted, by clamping-screws *i* passing through the top of the frame and coming in contact with the top of the box.

The file-plate D being in the grooves of the box C, the frame is then secured in position so that the file-plate shall correspond to the fly-bars of the roll. The roll is now put in motion and the box properly adjusted so as to bring the roughened surface of the plate D in contact with the edges of the fly-bars. Any irregularities appearing thereon will be filed off, and said fly-bars are thus reduced to a perfect uniformity.

It will be seen that a very simple device is obtained for bringing the edges of the fly-bars to a perfect and uniform edge by the employment of a concaved plate with its face roughened, as described, and the manner of adjustment is exceedingly simple, which makes altogether a very practical and effective device for the purpose hereinbefore described.

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

1. The plate D, having a concave face, with serrations or file-like grooves *g*, substantially as and for the purpose set forth.

2. The concave plate D in combination with the box C and frame A, said box being adjustable as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES H. BOBINSON.

Witnesses:
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B. F. WALTER.