J. W. MOORE.

Wire-Guide for Paper-Machines.

No. 212,485. Patented Feb. 18, 1879.

Fig. 1.

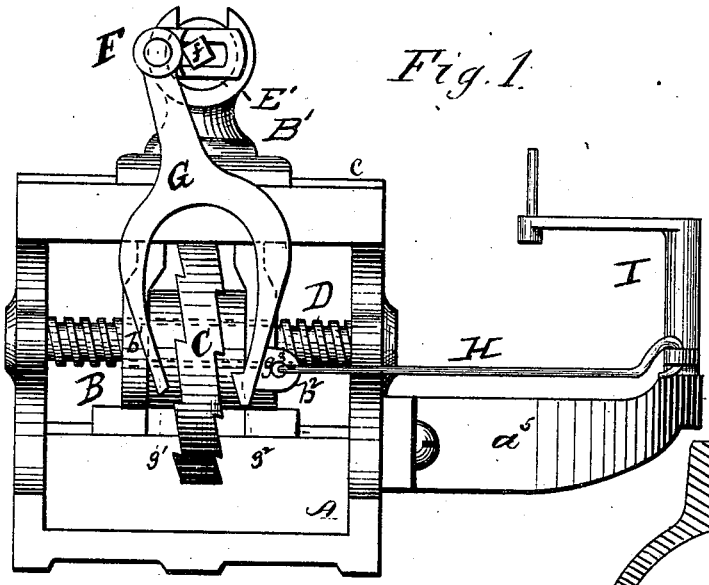


Fig 3.

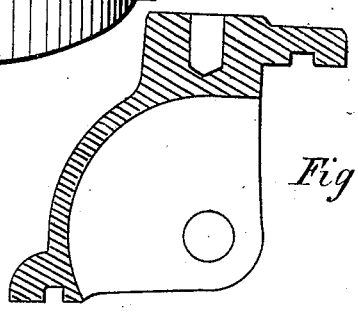
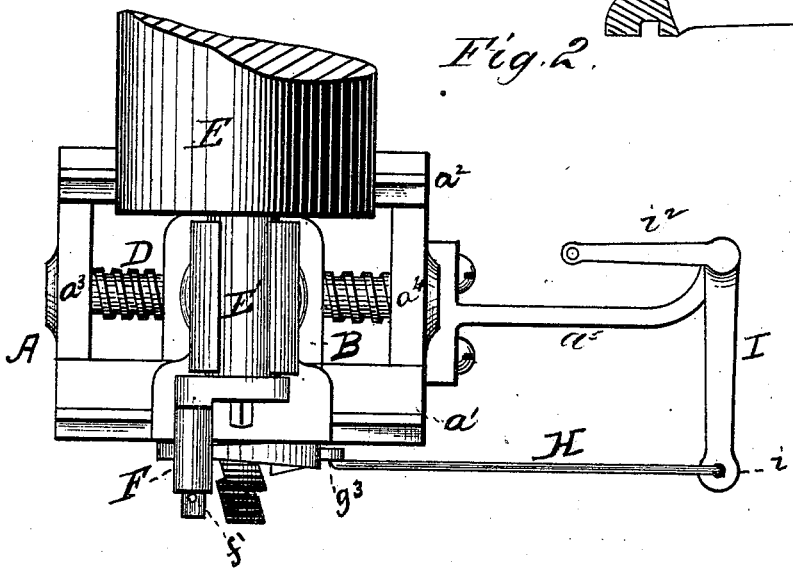


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN W. MOORE, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN WIRE-GUIDES FOR PAPER-MACHINES.

Specification forming part of Letters Patent No. **212,485**, dated February 18, 1879; application filed December 7, 1878.

To all whom it may concern:

Be it known that I, JOHN W. MOORE, of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Wire-Guides for Paper-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of machines which is designed for the purpose of keeping the wire-cloth in a paper-machine in its proper position laterally; and as the wire-cloth will move laterally to one side or the other, this apparatus is designed so that the least possible movement will be at once checked, which desired result is obtained by simply moving one end of the wire-cloth roller. This causes the wire-cloth to take the desired direction and position on it, all of which is more fully described hereinafter, and by the aid of the drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a plan. Fig. 3 is a side section of the slide.

In all the figures the same parts are referred to by the same letter; and to enable those skilled in the art to make and use my invention, I will proceed to describe the construction and operation thereof.

The bed-plate A, which is to be secured to the frame of the paper-machine or other suitable place, is provided with two smooth faces, a^1 and a^2, on or to which belong two projections. These projections are to fit into and project upward into corresponding grooves in the faces formed in the slide B. Said slide is to move on the said faces a^1 and a^2. The slide B is held in its position on the bed-plate A by means of the screw-bolt D. This is accomplished by the ears b^1 and b^2 of the slide B, they having a hole through them, through which said bolt D passes, and, in connection with a screw-nut ratchet-wheel, C, placed between said ears b^1 and b^2, holds the slide B in position so as to allow it to slide laterally in either direction by the action of revolving the said screw-nut ratchet-wheel C. The bolt D is securely fastened to the sides a^3 and a^4 of the bed-plate A; and the arrangement of the slide B is so that the screw-nut ratchet-wheel C is to the back enveloped in a covering formed by the extension of the ears b^1 and b^2 and connection of slide with its lower face, for the bed-plate A, which is clearly shown by Fig. 3. On the top of the slide B is a hole, to receive the pivot-bolt of the bearing B′, in which the journal of the roller E rests, this pivot compensating for the slide action of the slide B. At the outer end of the journal E′ is the adjustable crank F. This is held in position by a bolt, *f*, the tightening of which serves to adjust said crank. On the crank-pin f' is placed the eye of the double pawl G. Said pawl extends downward, and branches out into the double pawls g^1 and g^2. They are made to pass to either side of the screw-nut ratchet-wheel C, and the end g^1 engages the ratchet C when descending, and the end g^2 engages the same when ascending, said motion or action being derived from the crank F of the roller E, and the distance between the two ends of the pawls g^1 and g^2 is so adjusted as to just clear the ratchet-wheel C. To the side of the pawl g^2 is the eyelet g^3. This is connected with a rod, H, and said rod again connects with the double right-angle action I, the lower connection, i^1, engaging the rod H, and the upper connecting-lever, i^2, with the side guides, between which the flat wire-cloth runs or moves. This action I is supported on the end of a projection, a^5, belonging to the bed-plate A, and on which projection is a pintle, a^6. This permits the action I to be pivoted thereon.

The operation of the invention is simply that, as the roller E revolves, the up-and-down motion is imparted through the medium of the journal to the crank, to the double pawl, and at a speed equal to its revolution, one thrust down and one up, to the turn of the roller; and should the lever of I be pressed in the slightest degree the rod H would draw the pawls g^1 and g^2, or push the same, thereby causing them to at once come in contact with either side, as the case may be, of the screw-nut ratchet-wheel C, and, giving it a turn, would slide the slide B, therewith checking or at once guiding the wire-cloth, so as to cause it to cease acting on the lever of I.

Having thus described the construction and operation of my invention, what I desire to secure by Letters Patent of the United States is as follows:

1. In a construction for guiding wire-cloths or belts, the crank action, substantially as described, for operating a double pawl, to engage by draft or thrust a screw-nut ratchet-wheel, to slide laterally a slide or purchase, substantially for the purpose set forth.

2. The combination, with the journal E′ of a roller, E, of an adjustable crank, F, to operate double-acting pawls G, to operate in either direction a ratchet-wheel, substantially as herein set forth.

3. The combination of a bed-plate, A, and fixed screw-bolt D, with a screw-nut ratchet-wheel, to hold and operate a slide, B, by the action of double pawls operated by a crank, F, substantially for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN W. MOORE.

Witnesses:
WM. V. PERRY,
R. C. FRAIM.