

A. L. Hurtt,

Clothes Line Holder.

No. 102,518.

Patented May 3, 1870.

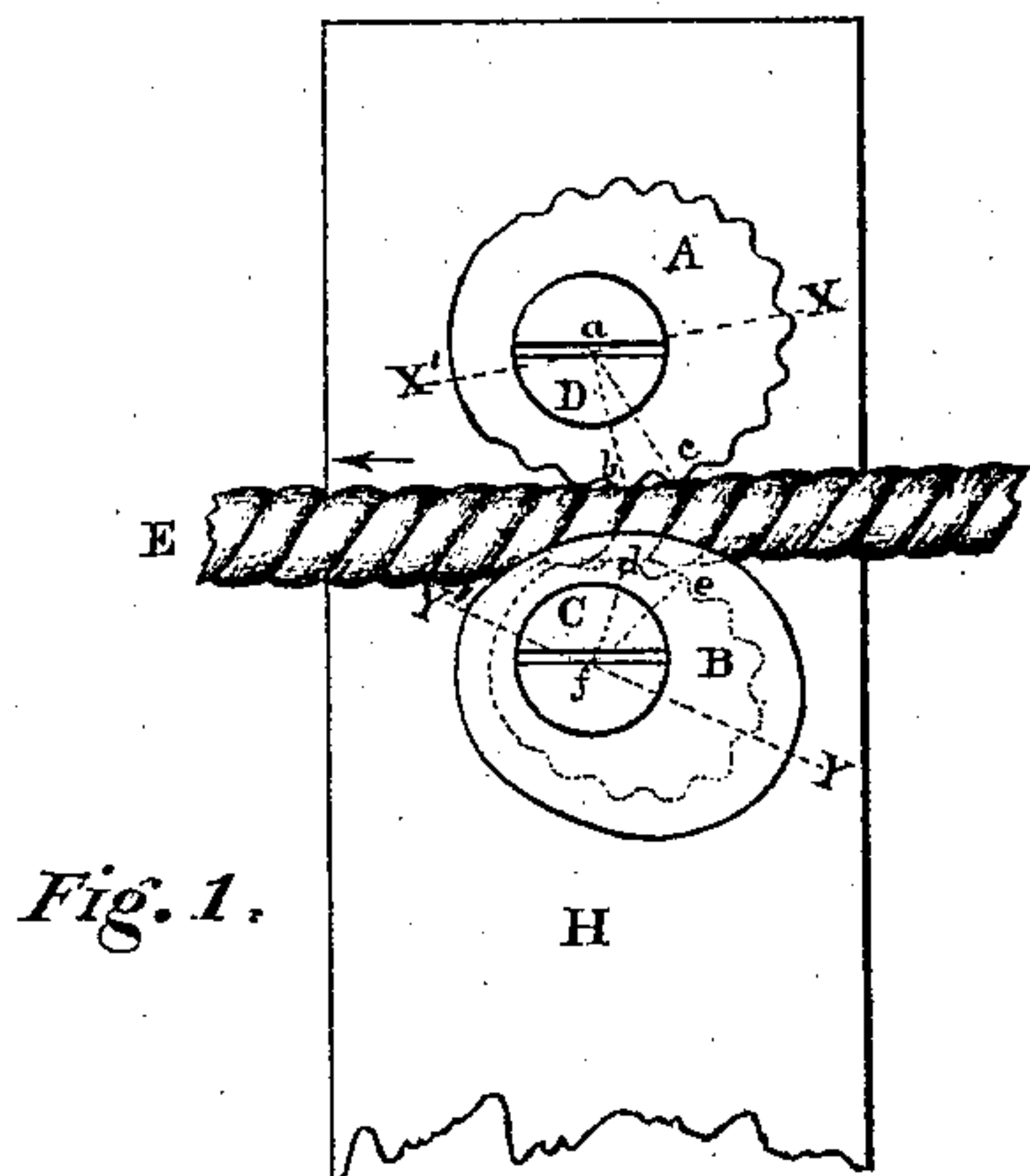


Fig. 1.

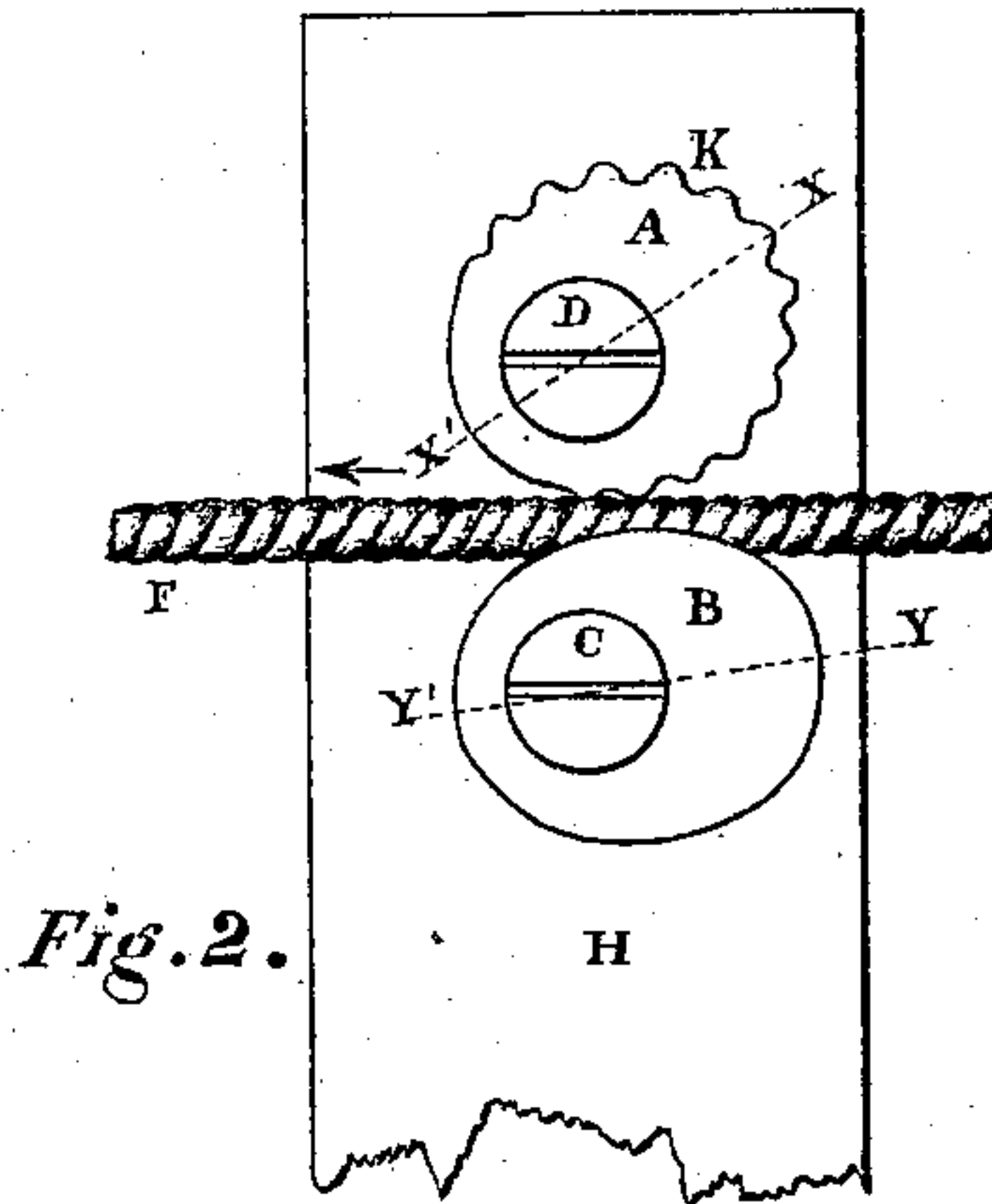


Fig. 2.

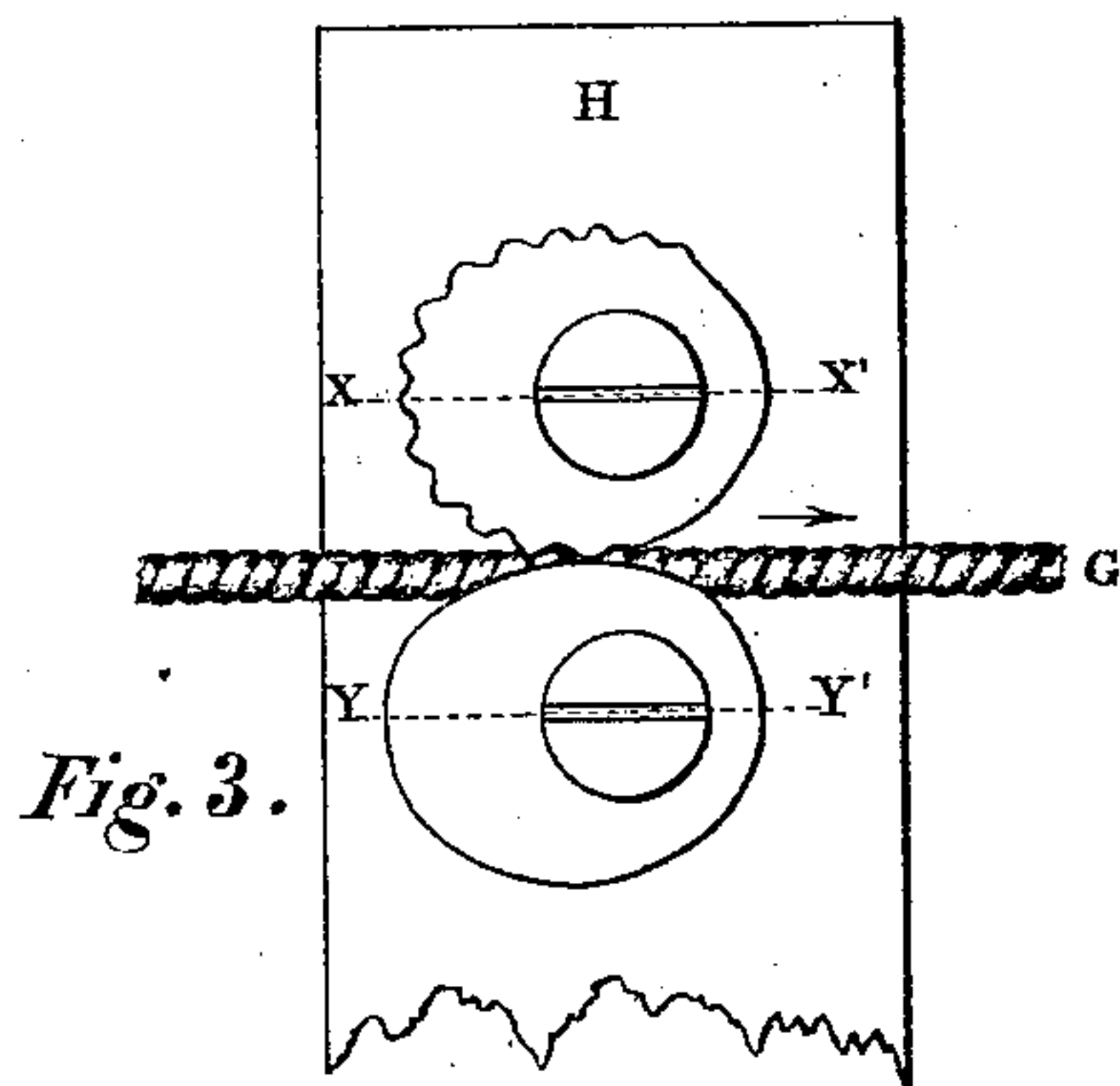
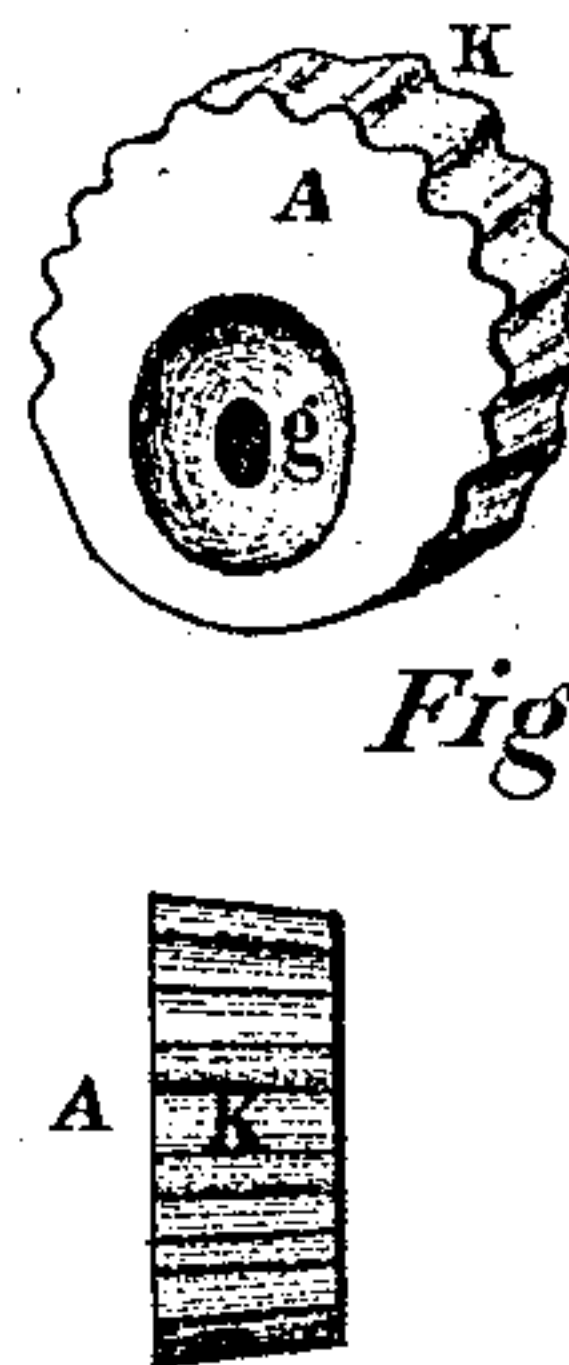
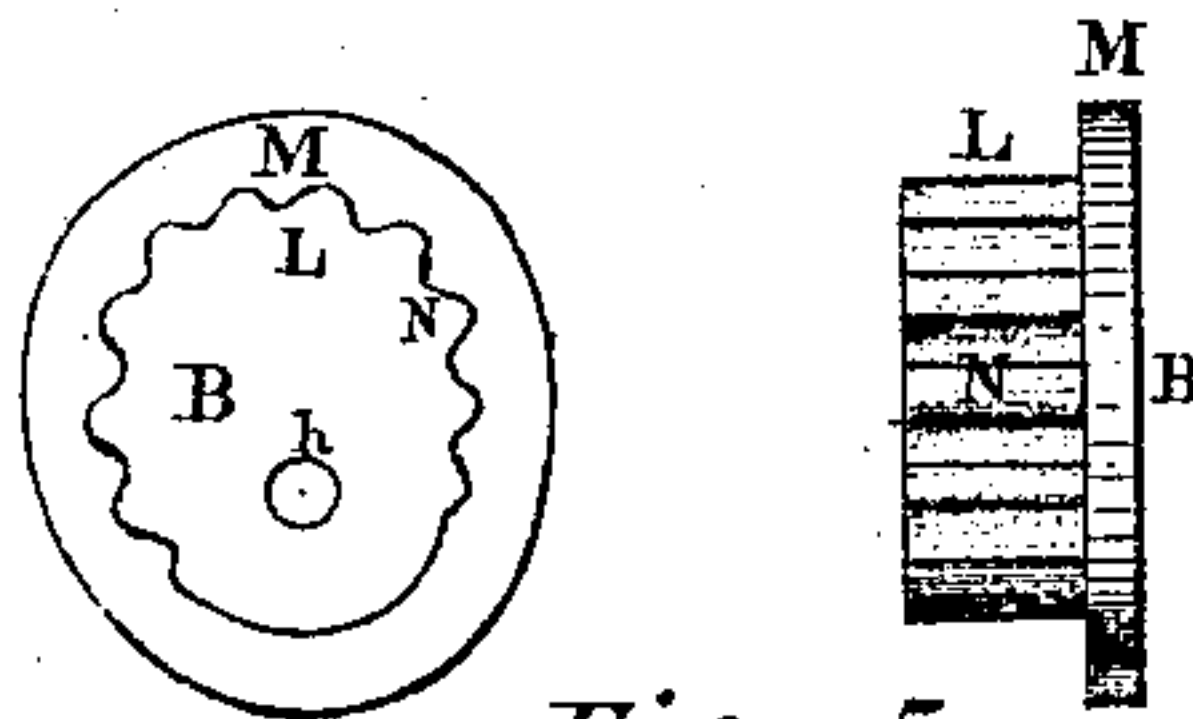


Fig. 3.



Figs. 4.



Figs. 5.

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UNITED STATES PATENT OFFICE.

ABEL L. HURTT, OF MONTICELLO, INDIANA.

IMPROVED CLOTHES-LINE HOLDER.

Specification forming part of Letters Patent No. 102,548, dated May 3, 1870.

To all whom it may concern:

Be it known that I, ABEL L. HURTT, of Monticello, White county, Indiana, have invented certain new and useful Improvements in Clothes-Line Holders; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, forming a part this specification, and to the letters of reference marked thereon, of which drawings—

Figures 1, 2, and 3 are views showing the application of my holder. Figs. 4 are perspective and side views of the upper cam of holder. Figs. 5 are rear and side views of the lower cam of holder.

My invention relates to certain improvements in the construction of holders for attaching clothes-lines to posts or buildings for hanging out clothes to dry, or for securing any rope or strap to any fixed point; and it consists in the combination of two cams, one of which is provided with an edge flange, which cams are secured to the desired point by pivot-screws or their equivalents, and act together to hold the line or rope between them at any desired point, whereby I obtain a very cheap and simple device which is easily applied and operated, and which will hold any desired size of rope or strap in a perfectly secure manner.

The advantages resulting from the use of the two cams in combination with each other consist in the obtaining of a perfectly secure holder for any size of rope, within reasonable limits, without the necessity of altering the position of the pivots of either cam, and also in the obtaining of a gripping mechanism which acts on the principle of the toggle-joint, and hence gives a much more powerful grip on the rope than could be obtained by any single-cam device, which can only act as a single-pivoted lever in producing the gripe on the rope.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The upper cam, A, is a simple wheel of cast-iron, provided with the screw-hole, and having a corrugated face, K, and is made with a slight draft, as shown in side view, for convenience in casting. The lower cam, B, consists of the body L, provided with the corrugated face N, and having the screw-hole *h* formed in

it, and the flange M, which is cast on the body L, and which serves to prevent the rope from pulling sidewise out of the holder. These cams A and B are secured to the post H or other desired object by the pivot-screws D and C, or their equivalents, which pass through the screw-holes *g* and *h* in said cams, as shown in Figs. 1 to 3.

The positions of the cams A B on their pivots in holding a rope will vary with the size of the rope to be held—as, for example, in holding a large-sized rope, E, as shown in Fig. 1, both the short ends X' Y' of the cam-axes X X' Y Y' diverge toward the rope E on the side of the direction of the strain on the rope, (indicated) by arrow-head; and in holding a smaller rope, F, as shown in Fig. 2, the short end X' of the axis X X' is directed toward the strained side of the rope, and the short end Y' of the axis Y Y' is directed away from it, while in holding a still smaller rope, G, as shown in Fig. 3, both the axes X X' and Y Y' are nearly parallel to each other and to the rope, the object being in each case to obtain such a distance between the bearing-surfaces of the cams as to secure the "bite" of the cams on the desired size of the rope.

From an inspection of Fig. 1 it is evident that the action of the cams is that of a toggle-joint, the line *a b* representing one arm of the toggle and the line *d f* the other arm; and it is also evident that in case the first toggle, *f d b a*, does not prove sufficiently powerful to hold the rope, the second toggle, *f e c a*, will then come into play, and so on, so that if the cams A B be secured on the post H in such a way that their surfaces L and K could be brought into contact, it is evident that they would grip any size of rope or line from the small metal clothes-line to as large a rope as could be put between them, and that there is no possibility of the rope slipping between them.

It is also readily seen that this adaptation of the holder to different sizes of ropes cannot be had by the use of a single cam, A, in combination with a fixed plate or pulley, for the action of the cam A would then depend wholly upon the pressure of the arm *a b* and the friction existing between the rope E and the face K of the cam A; and if the rope were very large, the friction between the cam-face and rope would not be sufficient to bring the lever

ab into play. Consequently, if the cam A were arranged in combination with a fixed plate or pulley, so as to hold a large rope, it would not hold a small one, and vice versa, so that its application is very limited.

I am aware that single cams A have been before used, both in combination with a stationary pin or plate and with a pulley; hence I lay no claim to such cam, except when used in combination with a second cam, B; nor do I claim the flange M on the cam B, as this feature has been before shown; but

What I do claim herein as new and of my invention, and desire to secure by Letters Patent, is—

The within-described line-holder, consisting of the cam A and the cam B, with flange M, when secured on the post H by the pivot-screws D C, or their equivalents, and acting in combination with each other, as and for the purpose specified.

As evidence of the foregoing, witness my hand this 21st day of February, A. D. 1870.

ABEL L. HURTT.

Witnesses:

JOB ABBOTT,
ANDREW CHOFFIN.