

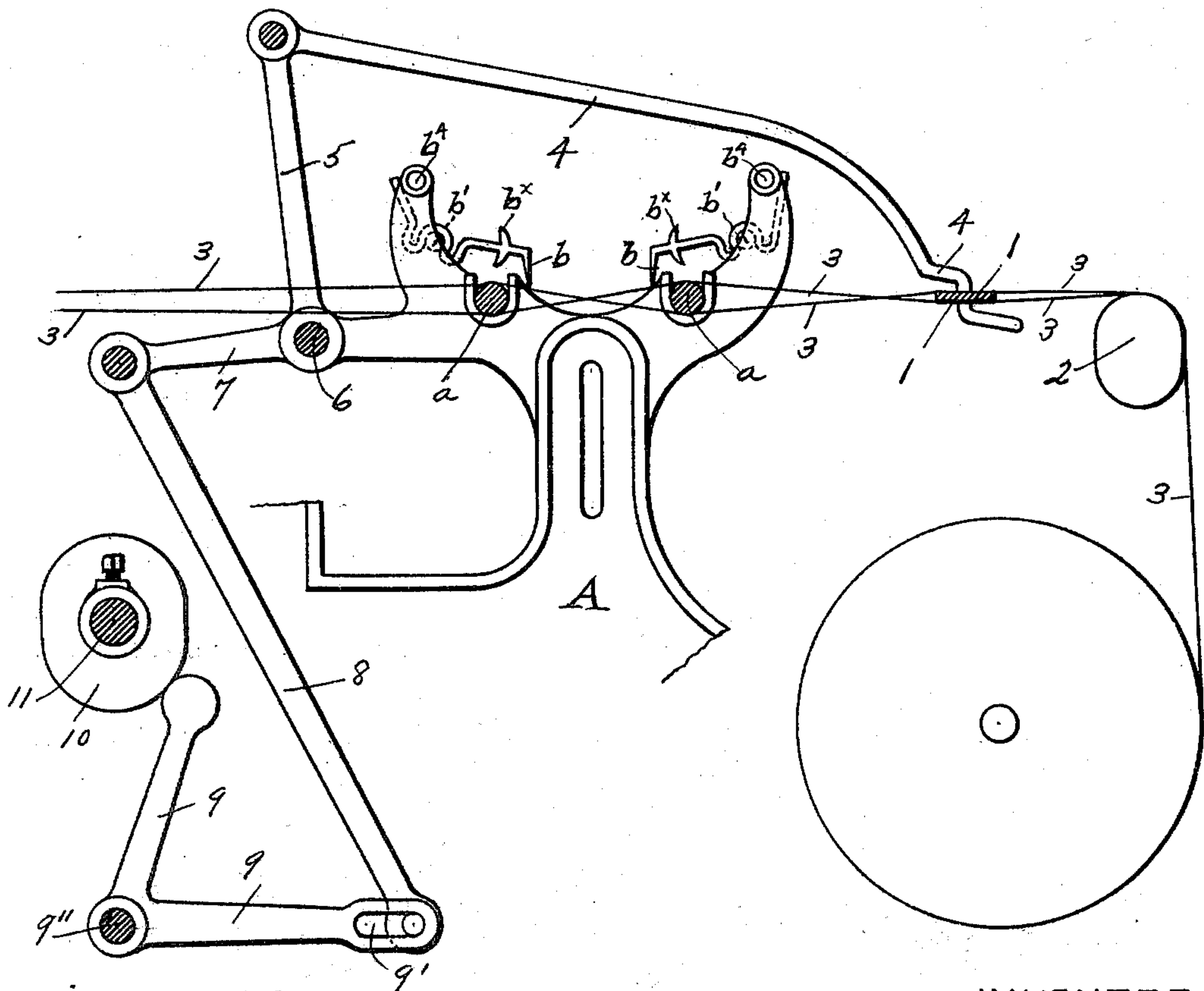
No. 626,499.

Patented June 6, 1899.

A. MORELL.  
LOOM.

(Application filed Nov. 19, 1898.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

ALFRED MORELL, OF MILLBURY, MASSACHUSETTS, ASSIGNOR TO THE CROMPTON & KNOWLES LOOM WORKS, OF WORCESTER, MASSACHUSETTS.

## LOOM.

SPECIFICATION forming part of Letters Patent No. 626,499, dated June 6, 1899.

Application filed November 19, 1898. Serial No. 696,836. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED MORELL, a citizen of the United States, residing at Millbury, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Looms, of which the following is a specification.

My invention relates to looms, and more particularly to looms provided with warp stop-motions.

It has been found in the use of warp stop-motions in looms that with warps which have been colored or dyed the tendency which the threads of such warps have in clinging or matting together interferes with the proper operation of the drop devices of such motions. In order to prevent the adjacent warp-threads from clinging together, I have invented a movable rod placed between the stop-motion and the back roll. Said rod has alternate warp-threads pass above and below it. A back-and-forth motion is given to said rod at intervals, and such motion separates the adjoining warp-threads from each other, and they then pass to the drop devices comparatively free one from another.

In order to illustrate my invention, I have shown it in the drawing combined with the warp stop-motion shown in United States Letters Patent No. 599,832, dated March 1, 1898; but I do not limit myself to its use with the warp stop-motion shown in said patent, as it is equally useful in combination with the other warp stop-motions and may be used in looms without warp stop-motions.

The drawing represents a portion of the patented warp stop-motion above referred to with my improvements combined therewith.

In the drawing the several parts of the warp stop-motion shown are designated by the same letters of reference as similar parts shown in the drawings of Patent No. 599,832, above referred to, and as the same forms no part of my present invention it is not necessary to describe them herein.

It is only necessary to describe my movable separating-rod and the mechanism shown in the drawing for operating the same.

The movable rod or bar 1 is located between the back roll 2 and the warp-stop-motion mechanism and extends transversely across the warp-threads 3, which pass above and below it alternately. A back-and-forth motion is given to the rod or bar 1 at intervals, and I have shown in the drawing mechanism for moving said rod 1 automatically. In this instance each end of the rod 1 is connected by a rod 4 to an arm or lever 5, fast on a rock-shaft 6. A rocking motion is given to the rock-shaft 6 through an arm 7, fast thereon, and a link 8, connected with said arm and also with the slotted end 9' of one arm of the angle-lever 9, pivoted at 9". The other arm of said angle-lever 9 engages a cam 10 on a driven shaft 11. The revolution of the cam 10, through angle-lever 9, link 8, arm 7, lever 5, and rod 4, communicates a back-and-forth motion to the rod or bar 1 and causes it to separate the adjoining warp-threads from each other.

It will be understood that the details of construction of my improvements may be varied somewhat from what is shown and described, if desired.

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

In a loom, the combination with a rod or bar located intermediate the back roll and the harnesses, above and below which the warp-threads pass, of means to move said rod or bar in the direction of the length of the warp-threads, said means comprising a driven cam, an angle-lever, one arm of which engages said cam, and the other arm of which is connected by a link with an arm fast on a rock-shaft, and said link, arm, and rock-shaft, and a second arm fast on said rock-shaft, and a rod connecting said arm with the rod or bar to be moved in the warp-threads, substantially as shown and described.

ALFRED MORELL.

Witnesses:

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