(No Model.)

P. SULLIVAN.

CLOTH GUIDE FOR LOOMS.

No. 584,566. Patented June 15, 1897.

Fig: 1.

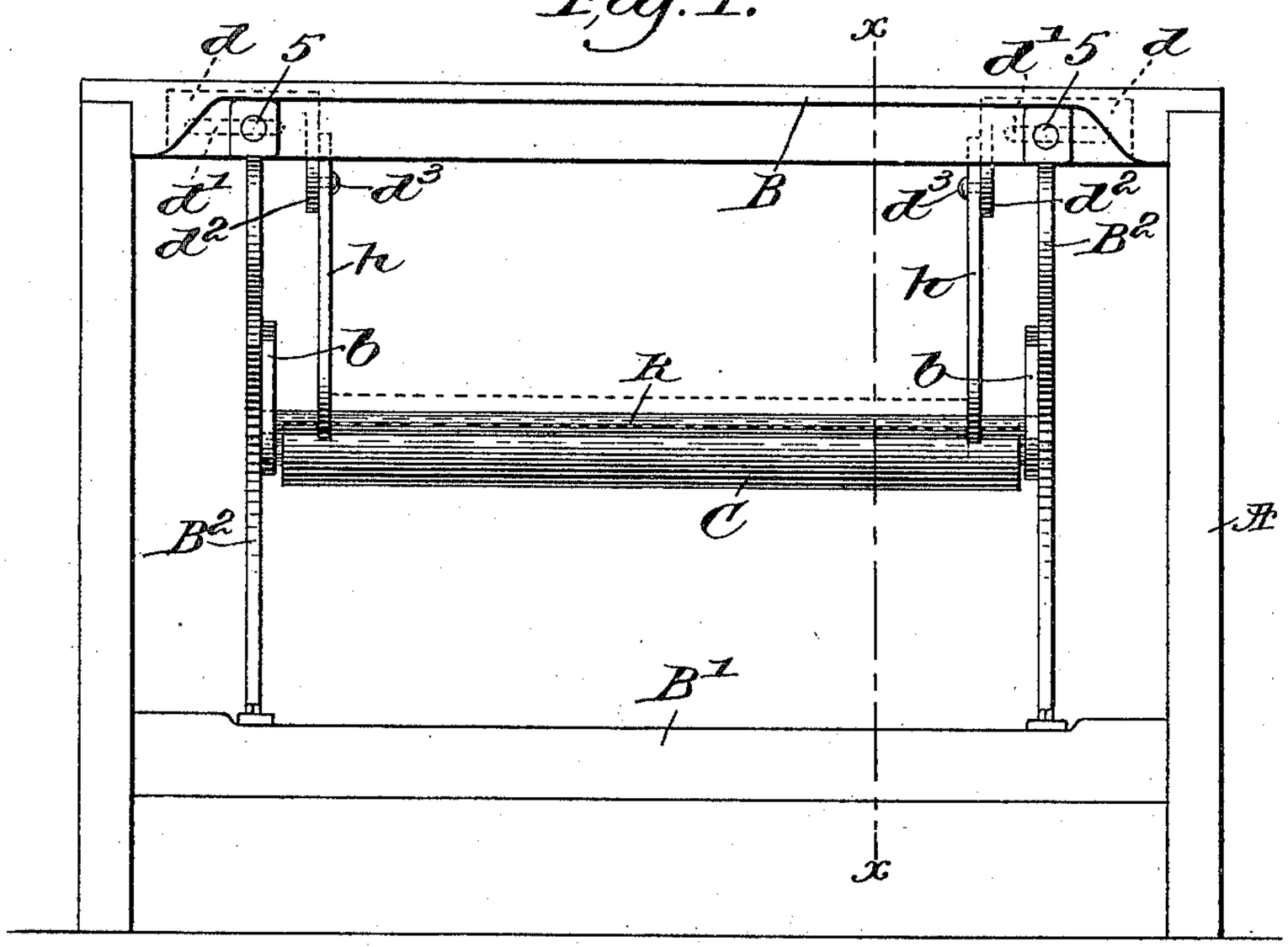


Fig: 2.

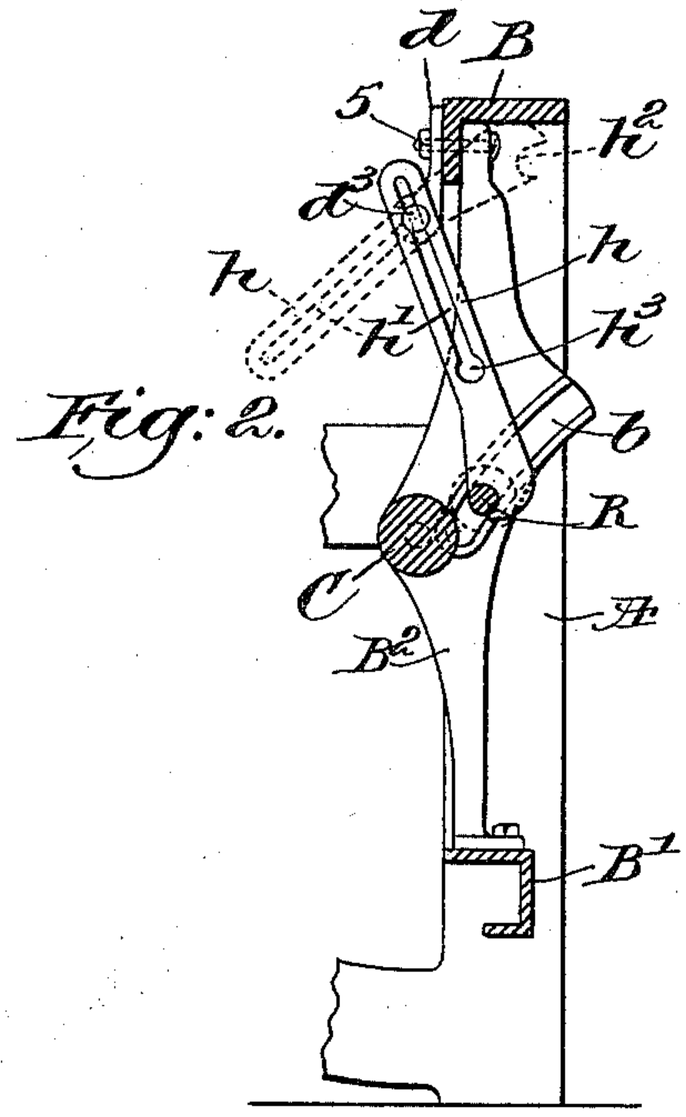
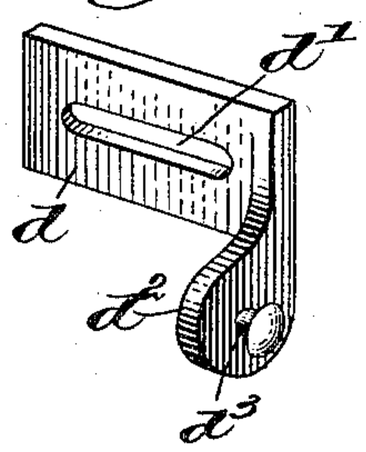


Fig: 3.



Witnesses.
Edward F. Allen.
Thomas A. Drummond.

Inventor:
Patrick Sullivan.
by Crosby Gregory.
attys.

UNITED STATES PATENT OFFICE.

PATRICK SULLIVAN, OF FALL RIVER, MASSACHUSETTS.

CLOTH-GUIDE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 584,566, dated June 15, 1897.

Application filed January 23, 1897. Serial No. 620,432. (No model.)

To all whom it may concern:

Be it known that I, PATRICK SULLIVAN, of Fall River, in the county of Bristol and State of Massachusetts, have invented an Improvement in Cloth-Guides for Looms, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of simple and efficient means for guiding the cloth evenly and without injury as it is wound up on the cloth-roller in a loom.

It is well known that unless carefully watched the cloth will not be wound true or its selvage edges will be folded over or creased during the winding, and various devices have been constructed having for their object the proper guidance of the cloth.

In my present invention I am enabled to weave cloth the full width of the loom, if desired, or any narrow width, by a very simple adjustment of the guide mechanism, and the latter consists of very few parts which can be applied at once to looms now in common use without altering them at all.

When it is desired to remove the cloth-roller, I can instantly throw the guides into inoperative position out of the way of the attendant and with no danger of their falling back accidentally.

Figure 1 is a front elevation of a sufficient portion of a loom to be understood with my invention applied thereto. Fig. 2 is a longitudinal section thereof on the line $x\,x$, Fig. 1, looking to the right; and Fig. 3 is an enlarged perspective view of one of the adjustable guide-supports.

The loom-frame A, breast-beam B, cross-girth B′, standards B^2, secured to the breast-beam and girth, providing bearings for the sand-roll C, and the open guideways b to form bearings for the journals of the cloth-roller R are and may be all of well-known construction.

On the usual bolts 5, securing the standards B^2 to the breast-beam, I mount guide-supports, shown as brackets d, longitudinally slotted at d' to receive the bolts and provided with downturned ears d^2 at right angles to the body portion of each bracket.

Each ear has preferably integral therewith on its inner side, when in place, a headed stud d^3, adapted to enter a longitudinal slot h' in the cloth-guide h.

The cloth-guides h, two in number, are made as arms with enlarged lower ends, in which a substantially semicircular recess h^2 is made (see dotted lines, Fig. 2) to embrace as much as possible of the cloth-roller R, the size of said recess corresponding to the diameter of the latter.

The longitudinal slot h' in the arm extends from near its upper end and terminates at its lower end in an enlargement h^3, large enough to admit the head of the stud d^3.

When the brackets d are adjusted in position, the guides h are hung upon the studs d^3, with the recesses h^2 embracing the cloth-roller close to the selvage of the cloth, said guides hanging freely upon the studs by their own weight.

As the cloth rolls up the roller R is lifted gradually in the open bearings b, (see Fig. 2,) the guides h moving up as required along the studs d^3, and as the roll of cloth increases the outward pressure on the guides is resisted by the ears d^2 and the heads of the studs d^3. The cloth is thus kept straight and smooth on the roller and wound hard and firmly thereupon, while the selvages cannot creep in or catch between the roller and the guides, owing to the large portion of the roller embraced snugly by the recesses h^2.

When the roll of cloth is to be removed, the guides are slid up along their supporting-studs to the ends h^3 and then swung upward until they assume the dotted-line position, Fig. 2, resting against the under side of the breast-beam, the weight of the slotted portions of the guides retaining them in such position by gravity.

It will be seen that the guides are very thin and that they can be moved up against the bearings b by adjustment of the brackets, so that the width of the cloth to be woven is practically limited only by the loom itself.

The notched ends of the guides are of such shape that they will not at any time contact with the sand-roll C.

My invention can be applied at once to looms now in general use, and the parts are few and simple and with a single movement can be moved into operative or inoperative

position, remaining in the latter position until positively moved therefrom.

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

1. In a loom, the breast-beam, brackets adjustably secured thereto and each provided on its inner side with a headed stud, guides having longitudinal keyhole-slots therein to be entered by the studs, the lower end of each guide having a substantially semicircular notch to embrace the cloth-roller, and the cloth-roller, substantially as described.

2. In a loom, a cloth-guiding device consisting of pivotally-supported, longitudinally-movable one-piece guides notched at their lower ends to embrace the journals of the cloth-roll, and fixed fulcra for said guides on which they may be slid longitudinally and upturned into inoperative position, substantially as described.

3. In a loom, the breast-beam, laterally-adjustable brackets secured thereto, each having a downturned ear provided on its inner face with a stud, and guides longitudinally slotted to receive the studs and notched at their lower ends, the weight of the slotted portions of the arms retaining their notched ends upturned when moved into inoperative position, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PATRICK SULLIVAN.

Witnesses:
JOHN P. MCMULLEN,
PIERCE MURRAY.