(No Model.)

T. SULLIVAN.

SELVAGE PROTECTOR OR CLOTH GUIDE.

No. 553,045. Patented Jan. 14, 1896.

Fig. 1.

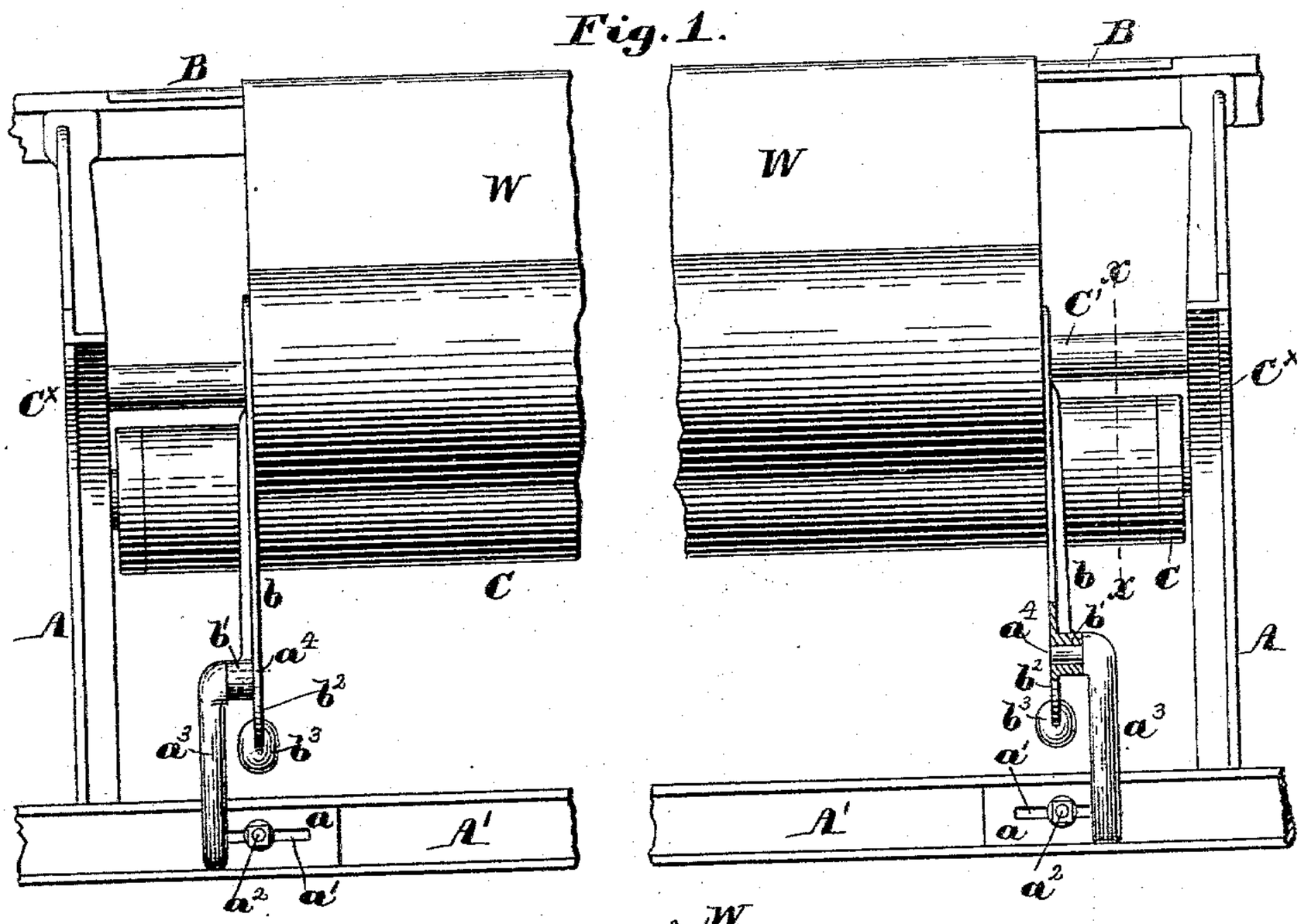
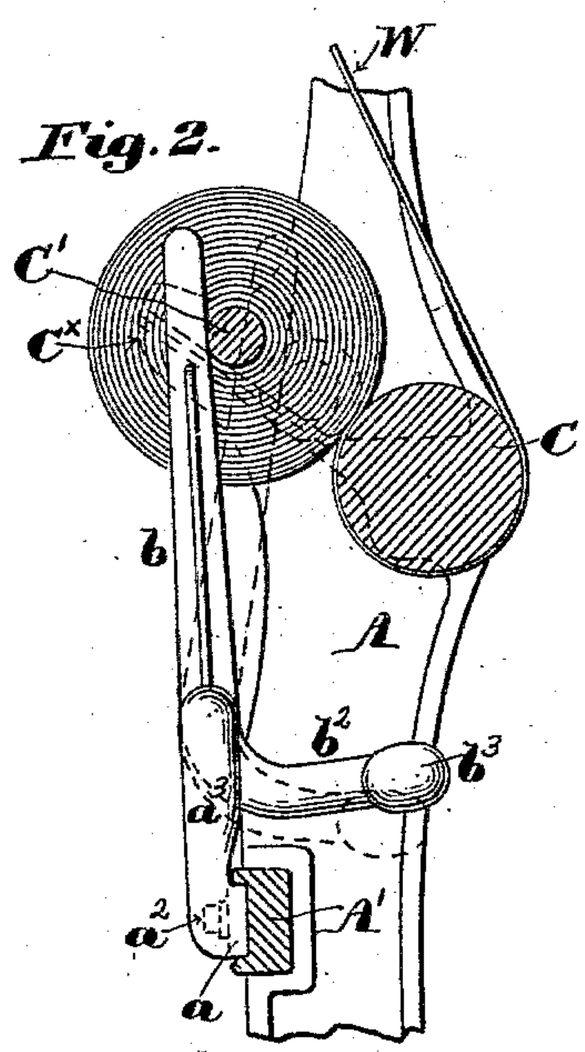


Fig. 2.



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UNITED STATES PATENT OFFICE.

TIMOTHY SULLIVAN, OF FALL RIVER, MASSACHUSETTS.

SELVAGE-PROTECTOR OR CLOTH-GUIDE.

SPECIFICATION forming part of Letters Patent No. 553,045, dated January 14, 1896.

Application filed September 30, 1895. Serial No. 564,077. (No model.)

To all whom it may concern:

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

As the cloth in a loom passes over the breast-beam to the cloth-roll shaft it is often wound unevenly thereupon, the ends of the roll of cloth assuming a conical or irregular form, concave at one end and convex at the other. This tends to produce a damaged and irregular selvage, slack in some portions and strained in others. From this cause it frequently happens that a considerable portion of a cut of cloth has to be classed as "seconds," entailing a loss upon the producer.

This invention has for its object the production of means for guiding the cloth and protecting the selvage as it is wound into a roll, to cause the roll to have flat parallel ends, whereby stretching or slackening of the selvage is entirely prevented.

Figure 1 in front elevation, centrally broken out, represents a sufficient portion of a loom to be understood with my invention applied thereto; and Fig. 2 is a sectional view taken on the line $x\,x$, Fig. 1, looking toward the left.

The loom-frame A, cross-girt A′ at the front of the frame, breast-beam B, sand-roller C, and shaft C′ for the cloth W to be wound upon, mounted in the inclined supports $C^{\times}$, may be and are substantially as usual in looms as commonly constructed, and in Fig. 1 I have omitted the greater part of the operative mechanism as having no bearing upon this invention.

Upon the cross-girt A′ opposite each end of the cloth-roll I have mounted stands a, slotted at a' to receive bolts a^2 by which they are adjustably secured to the cross-girt, said stands being upturned at a^3 and provided each with an inturned stud a^4. (See dotted lines Fig. 1.) A blade or arm b provided with a hub b' on its outer side is mounted to rock on the stud a^4 of each stand, each arm having secured to or integral therewith a branch b^2 bent inward and enlarged at b^3 to form a counterpoise. The blades b, thus free to rock on their supports, are held by the counterpoises against the front of the cloth-roll shaft C′, with the flat inner faces of the blades separated a distance equal to the width of the cloth, as shown in Fig. 1, and as the roll increases in diameter the blades guide the cloth and protect the selvages thereof, and as the blades rest against the ends of the roll each ply of the cloth is accurately wound upon the preceding one in true cylindrical form. As the shaft C′ rises in its guides $C^{\times}$, owing to the increase in the diameter of the cloth-roll, the blades b are rocked outwardly but still remain in contact with the shaft and continue to guide the cloth and protect the selvages.

When the roll of cloth is to be removed the blades are thrown forward sufficiently to overcome the counterpoises and the shaft C′ is removed, and when a new shaft is inserted the blades are turned back against it and held there by the weight of the counterpoises b^3, as clearly shown in Fig. 2.

As cloth varying in width for different cuts is made on the same loom the blades must be adjusted correspondingly, and this adjustment can be rapidly and easily effected by the attendant by means of the bolts a^2.

When the cloth-roll shaft is out of the loom the selvage-guides are always in place and ready to be instantly moved into operative position.

I am aware that forked arms to embrace the cloth-roll shaft have been hinged to the breast-beam or to some other part of the loom, to serve as selvage-guides, but the selvages often get caught in such guides, and furthermore it is a troublesome operation to bring the roll-shaft into operative engagement with the guides when being put in place.

Should the guide-blades be unnecessary at times they can be instantly detached from their supports, and in any event offer no obstacle to the removal of the roll of cloth or the insertion of the new shaft.

I claim—

In a loom, the cloth roll shaft, two adjustable stands located below the shaft, said stands being upturned and having each an in-

turned stud, a guide blade having a hub to embrace the stud on each stand, and a bent arm forming a part of each blade, and provided with a counterpoise, to normally retain the blades in engagement with the cloth roll shaft, substantially as described.

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

TIMOTHY SULLIVAN.

Witnesses:
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