(No Model.)

H. A. REMINGTON.

CLOTH ROLL SUPPORT FOR LOOMS.

No. 406,472. Patented July 9, 1889.

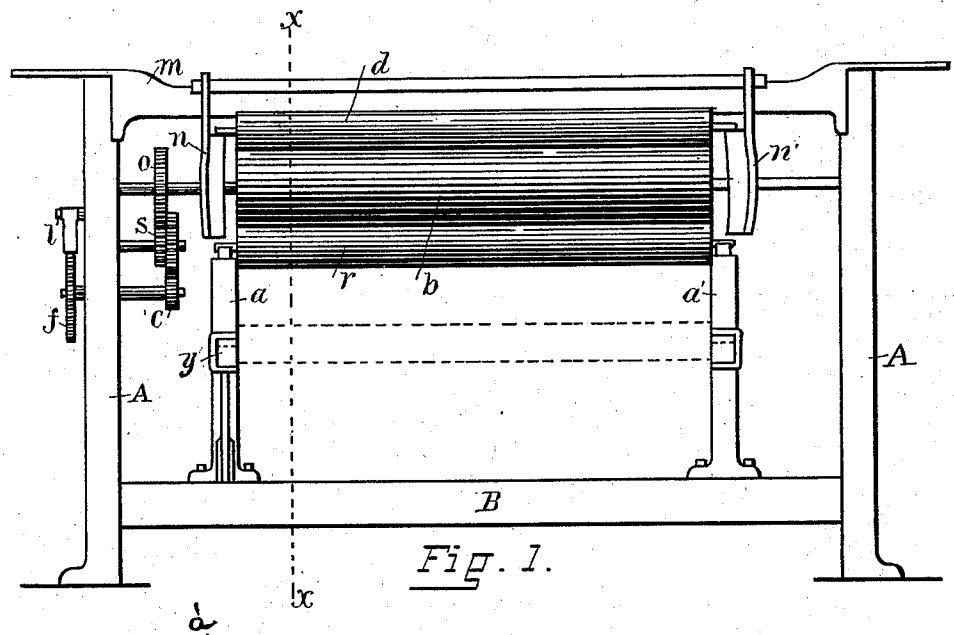


Fig. 1.

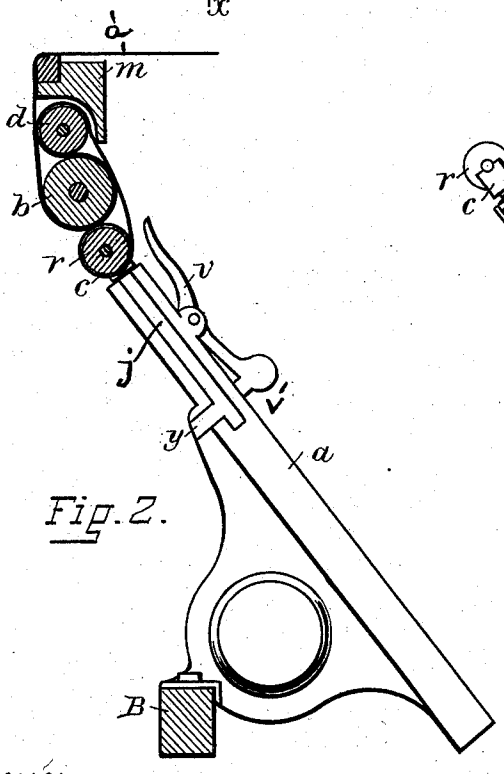


Fig. 2.

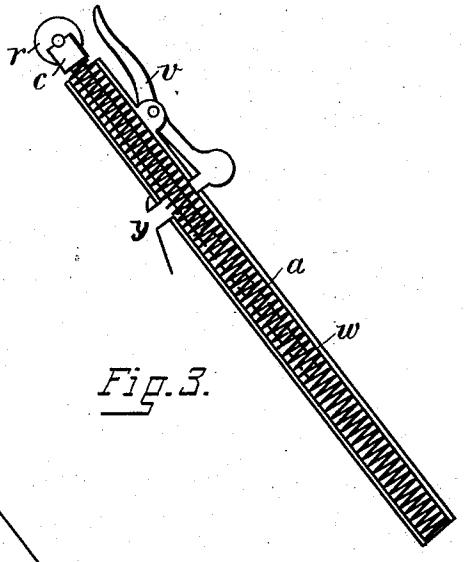


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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CLOTH-ROLL SUPPORT FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 406,472, dated July 9, 1889.

Application filed February 26, 1889. Serial No. 301,232. (No model.)

To all whom it may concern:

Be it known that I, HORATIO A. REMINGTON, of River Point, in the county of Kent and State of Rhode Island, have invented certain new and useful Improvements in Cloth-Roll Supports for Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention is an improvement in the method of holding and operating the "cloth-roll" in looms for weaving. The object of it is to hold the roll around which the cloth is wound, as it is woven, in a good position to wind the cloth with an even pressure, and at the same time render it capable of being easily removed when full and replaced with an empty roll, with as little delay and trouble as possible.

In the drawings, Figure 1 is a front elevation of a loom showing the front rolls and the parts that hold them. Fig. 2 is a vertical cross-section of the front rolls, taken on line *x x*, Fig. 1, showing the right-hand side of the left-hand cloth-roll support in Fig. 1. Fig. 3 is a vertical section of the roll-support shown in Fig. 2, showing the spring and parts inside of the tubular case.

A A are the two end frames of the loom, connected together by the girt or beam B and by the breast-beam *m*, over which the cloth is drawn as it is woven by the draft-roll *b*.

There is a cloth-roll support at each end of the loom, and as they are alike in construction, excepting that one is right hand and the other left hand, it will answer all practical purposes to describe but one of them.

The cloth-roll support consists of a tubular case *a*, placed in an inclined position under the front of the loom and attached to the beam B by a flanged foot cast on or otherwise attached to its under side, and bolted to the beam B, Fig. 2. A slot *j* is made lengthwise through the inner side of the upper part of the tube *a*, and an opening *y* is cut from the slot out to the front, at the top of the flange that holds the tube. The slot *j* is made wide enough to allow the journal of the cloth-roll *r* to slide in it freely, and the opening *y* is large enough to let the journal pass out. A large open spiral spring *w* is placed in the tube *a*, (see Fig. 3,) and the block *c* has its lower end made round, so as to go in the upper end of the spring *w*. The upper end of the block is square and has a semicircular recess made in it to form a bearing for the journal of roll *r*. The front rolls comprise the draft-roll *b*, held in bearings in the end frames, and driven by a train of gearing connected with a ratchet-wheel outside the end frame A, this ratchet-wheel being driven by a swinging pawl in the usual way. The cloth-roll *r* is held in the bearings *c*, set in the upper end of the springs *w*, and the tension-roll *d* is held loosely by its journal on flanges on the plates *n* and *n'*, attached to the breast-beam *m*. The three front rolls *d b r* being in position, as shown in Fig. 2, the cloth *a'* as it is woven is brought out over the breast-beam *m* and down in front around under the draft-roll *b*, which is usually covered with perforated sheet-steel or other rough material to draw on the cloth. After passing nearly around the roll *b* the cloth goes up over the roll *d* and down behind the rolls to the back of the cloth-roll *r*, under which it passes and on which it is wound. The springs *w* press the cloth-roll *r* up against the draft-roll *b*, and as it is enlarged by the cloth wound on it the blocks *c* will be pressed down into the tubes *a*, and the springs being compressed will bear it up with greater force, and so, although the roll grows heavier as the cloth winds on it, the springs will keep up an equal pressure of the cloth-roll on the draft-roll, and insure an even feed or draft on the cloth and warp as it comes through the loom. When a sufficient quantity of cloth has been wound on the cloth-roll *r*, it can be pressed down on the slots *j* until its journals reach the openings *y*, when the projections *v'* on the levers *v* will drop in through an opening in the tubes *a* and catch over the top of the blocks *c* and hold them down, so that the roll of cloth can be taken out through the openings *y* and an empty roll put in its place. The blocks *c* are released by pressing on the upper ends of the

levers v, and the springs w will push the empty roll up against the draft-roll to receive the cloth, as before.

Having thus described my improvements, what I claim as my invention is—

1. A cloth-roll support consisting of a tubular case inclosing a spiral spring and having a slot and opening made in it, substantially as described, in combination with a bearing-block, to hold the journal of the cloth-roll, substantially as and for the purpose described.

2. The combination of the tubular case a, having a slot j and opening y, substantially as described, with the spiral springs w, roll-bearing c, and the lever v, having the projection v', substantially as and for the purpose set forth.

3. The combination of the top roll d, supports c, draft-roll b, and cloth-roll r, with the tubular cases a, having slots j and openings y, springs w, and levers v, substantially as specified, and for the purpose set forth.

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