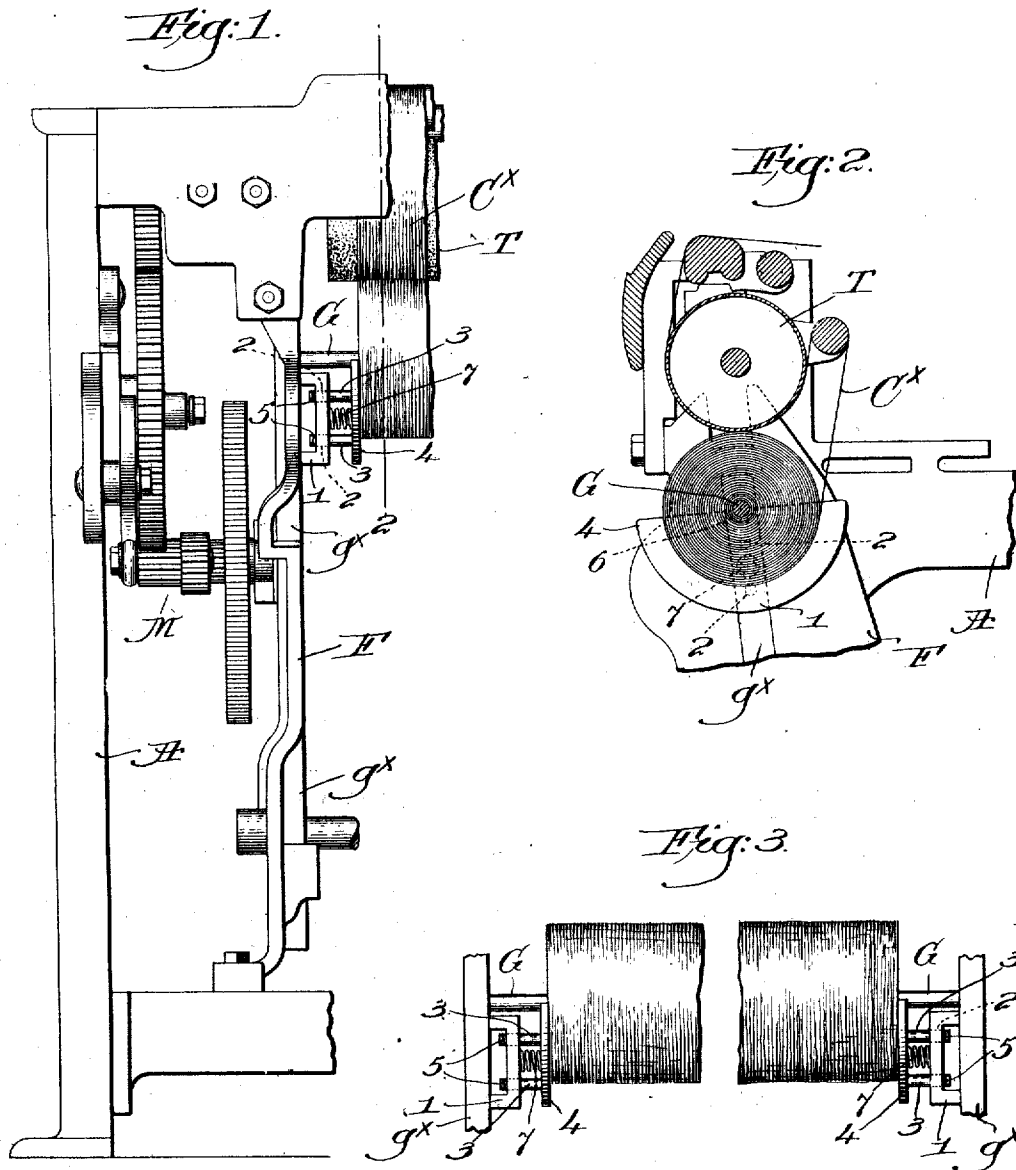


E. G. GUSTAFSON & T. DUQUETTE.
CLOTH GUIDING MEANS FOR LOOMS.
APPLICATION FILED SEPT. 27, 1909.

953,826.

Patented Apr. 5, 1910.



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UNITED STATES PATENT OFFICE.

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CLOTH-GUIDING MEANS FOR LOOMS.

953,826.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed September 27, 1909. Serial No. 519,720.

To all whom it may concern:

Be it known that we, ERNEST G. GUSTAFSON and THOMAS DUQUETTE, citizens of the United States, and residents of Grosvenor Dale, county of Windham, State of Connecticut, have invented an Improvement in Cloth-Guiding Means for Looms, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object the production of novel means for effectively guiding the edges of the web of cloth as it is wound into a roll by means of the take-up mechanism of a loom, whereby the finished roll of cloth will have flat ends and the cloth will be wound firm and straight.

Should the cloth be started to one or the other side, at the beginning of the winding, the means forming the subject-matter of the present invention will operate to straighten and properly position the cloth so that the selvage edges of successive turns will be superimposed one upon the other.

The various novel features of the invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a front elevation of the left hand side of a loom, showing a portion of the take-up mechanism and the means for guiding the cloth, embodying one form of the present invention; Fig. 2 is a transverse sectional detail of a portion of the mechanism shown in Fig. 1, taken on the line 2-2, looking toward the left; Fig. 3 is a detail in front elevation of the roll of cloth, centrally broken out, and the opposite guides superimposed one upon the other.

In the drawing the loom-frame A has rigidly attached upright stands F which form guides for the longitudinally-slidable bar g^* , the upper ends of said bars supporting the cloth-roll shaft G, mounted to rotate therein, the cloth being wound upon the shaft by the action of the take-up or sand-roll T, driven by a suitable train of gearing M, Fig. 1, all substantially as in United States Patent No. 610,636, granted September 13, 1898 to J. H. Northrop. While only one stand F, and the bar g^* mounted thereon, are herein shown it will be understood that such a stand and slide-bar are in prac-

tice located at each side of the loom, as in the patent referred to, suitable means acting upon the two bars to maintain the roll of cloth pressed against the take-up roll T.

In accordance with the present invention each bar g^* has mounted upon it a flat guide arranged to bear yieldingly upon the adjacent end of the roll of cloth as it is wound upon the shaft G, said guides serving to insure a straight feed of the web of cloth as it is laid upon the roll, to thereby cause the completed roll to have flat and parallel ends.

Each bar g^* as herein shown has upon its inner face a projecting bracket 1 below the bearing of the shaft G, and provided with holes 2 one above the other, to receive studs 3 rigidly secured at their inner ends to a flat and substantially semi-circular plate 4 constituting the end guide for the roll of cloth. Each pair of studs 3 slides longitudinally in the holes 2 in the bracket, so that the attached guide 4 is laterally movable, the studs positioning the guide and maintaining it at all times parallel to its fellow guide at the opposite side of the loom, cotter pins 5 or other suitable devices preventing withdrawal of the studs from the bracket.

The straight upper edge of the guide 4 extends beneath the shaft G and is preferably notched, as at 6, Fig. 2, to loosely embrace it, and referring to Fig. 2 it will be seen that the guide is of sufficient diameter to cooperate with the roll of cloth from the beginning to the end of the winding thereof. Between each plate or guide 4 and the adjacent face of the sustaining bracket 1 a strong spring 7 is interposed, to press the guide firmly against the end of the roll, the yielding pressure exerted by the guides upon the selvage edges of the cloth C^* causing the web to travel in a straight path as it passes from the guide roll t , Fig. 2, onto the previously wound layers upon the shaft G. As a result the edges of successive layers or wraps of cloth are superimposed one upon the other and the completed roll of cloth is a true cylinder, with flat, parallel ends, and with the cloth wound straight and smooth.

Inasmuch as the end guides are mounted on the shaft-supporting bars g^* and move therewith said guides always maintain a constant relation to the center of the roll of cloth. When a roll is completed and removed from the loom the springs 7 press the

guides inward, but at such time the retaining devices 5 operate to prevent disengagement of said guides from the brackets.

Various changes or modifications may be made by those skilled in the art in details of construction and arrangement without departing from the spirit and scope of the invention as set forth in the claims annexed hereto.

10 Having fully described the invention, what we claim as new and desire to secure by Letters Patent is:—

1. In a loom, a shaft upon which the cloth is wound, supports in which the ends of the shaft are rotatably mounted, laterally-yielding end guides to cooperate with the ends of and maintain flat the ends of the roll of cloth, and means to connect said guides with the shaft-supports.

20 2. In a loom, the cloth-roll shaft, supports for the ends thereof, and parallel, laterally-yielding guides to cooperate with and maintain flat the ends of the roll of cloth.

25 3. In a loom, the cloth-roll shaft, longitudinally movable supports in which the ends of the shaft are journaled, and parallel end-guides carried by said supports and cooperating with the edges of the web of cloth, to maintain the ends of the cloth-roll flat and parallel to each other.

30 4. In a loom, in combination, a rotatable

shaft upon which the cloth is wound as woven, laterally and freely movable end guides to cooperate with and maintain flat the ends of the roll of cloth, and means to press said guides yieldingly against the same.

5. In a loom, in combination, a rotatable shaft upon which the cloth is wound as woven, laterally movable and parallel semi-circular end guides to cooperate with and maintain flat the ends of the roll of cloth, springs to press the guides against the same, and means to position and maintain the end guides in parallelism.

6. In a loom, the cloth-roll shaft, longitudinally movable supports in which the ends of the shaft are journaled, laterally movable end guides carried by said supports and cooperating with the ends of the roll of cloth to maintain the same flat, springs to press the guides inward, and means to position and maintain said guides in parallelism.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

ERNEST G. GUSTAFSON.
THOMAS DUQUETTE.

Witnesses:

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