No. 820,746.

PATENTED MAY 15, 1906.

C. L. TAYLOR.

CLOTH TENTERING MACHINE.

APPLICATION FILED AUG. 30, 1905.

Fig. 1.

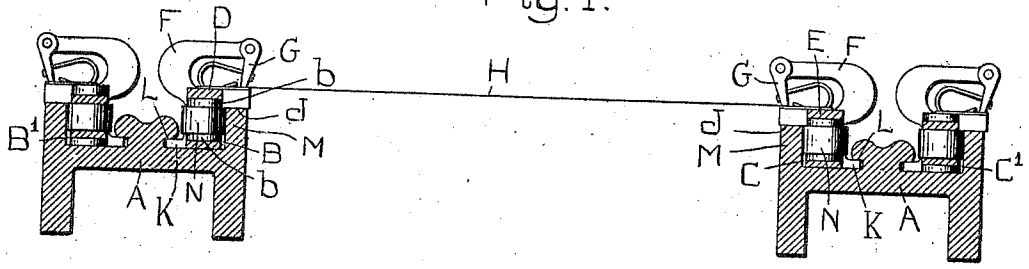
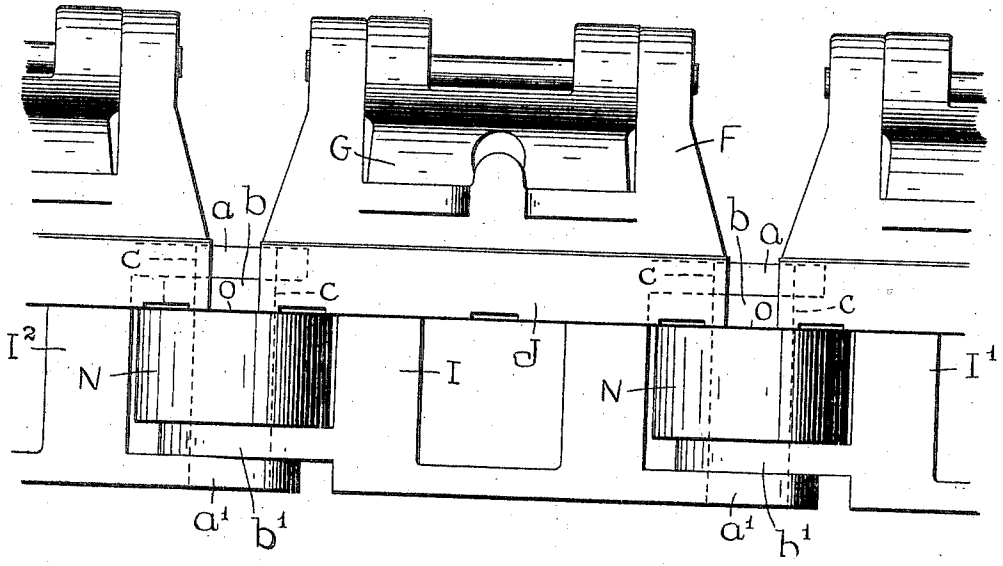


Fig. 2.



Witnesses

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CHARLES L. TAYLOR, OF HARTFORD, CONNECTICUT.

CLOTH-TENTERING MACHINE.

No. 820,746. Specification of Letters Patent. Patented May 15, 1906.

Application filed August 30, 1905. Serial No. 276,483.

To all whom it may concern:

Be it known that I, CHARLES L. TAYLOR, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Cloth-Tentering Machines, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 represents a transverse sectional view of the tracks of a tentering-machine in which the endless chains travel which carry the automatic cloth-gripping devices, and Fig. 2 is an enlarged view of a portion of the endless chain removed from the track.

Similar reference-letters refer to similar parts in the different views.

My present invention relates to that class of tentering-machines in which a series of cloth-gripping devices are mounted upon the links of an endless chain which are made to travel in longitudinal tracks by which the cloth is stretched and held taut during the process of drying. Tentering-machines of this class are now in common use, and as their construction and operation will be well understood by those conversant with the manufacture of textile fabrics I have not deemed it necessary to show the entire tentering-machine, but only such portions as relate particularly to my present invention, which consists in an improvement in the endless chains of the machine by which the friction of the chains upon their tracks is reduced, as hereinafter described, the novel features of construction being pointed out in the annexed claims.

Referring to the accompanying drawings, A A denote a portion of the framework of the machine, the same being mounted upon a suitable stand or support. (Not shown.) The framework A comprises two longitudinal ways or tracks B B′ and C C′, the tracks B and C being occupied, respectively, by two endless chains D and E, consisting of a series of links, upon each of which are mounted curved arms F F, carrying at their free ends pivoted gripping-pawls G G, which engage the opposite edges of a woven fabric H. Means are provided for moving the chains D and E through the tracks B and C, said chains being returned through the tracks B′ and C′ after passing around sprocket-wheels at the ends of the tracks. By making the tracks B and C slightly divergent the chains D and E in their longitudinal movement through the tracks will be gradually separated, thereby stretching the fabric H as it is held between the gripping-pawls G G.

The force required to stretch the fabric H exerts a pulling strain upon the chains D and E, which is resisted by the engagement of the chains with their respective tracks B and C, and as the plane of this pulling strain is entirely above the chains D and E it tends to exert a rocking motion upon the chains, causing undue friction upon certain portions of the contacting surfaces between the chains and their tracks. The chains B and C consist of a series of links, one of which is shown on an enlarged scale at I, Fig. 2, a portion of the adjacent links being shown at I′ and I². The links are provided at their upper edge with overhanging lips J, and the lower edge of the links is provided with a projecting lip K, adapted to run in a groove L in the ways. The ways B and C are provided with vertical walls M, the upper edges of which form a bearing-surface for the overhanging lips J. The links I I′ I² of the chain are provided at their ends with lugs *a a′* and *b b′*, which are united by pintles, (indicated by broken lines *c*,) whereby the links are hinged together, and between the inner lugs *b b′* I journal rollers N, arranged to bear against the inner surface of the vertical wall M, with the upper ends O of the rollers in the same plane as the under side of the overhanging lips J, so that the force exerted by the tension of the fabric H will be resisted by the pressure of the rollers N against the inner surface of the vertical walls M and at the upper edge of the vertical wall M adjacent to the plane of the pulling strain exerted by the fabric H. This position of the rollers N is accomplished by raising the lugs *a* a sufficient distance above the bearing-surface of the overhanging lip J to admit the lugs *b*, thereby bringing the upper ends of the rollers in line with the under or bearing surface of the lip J.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination in a tentering-machine, of a pair of tracks provided with vertical walls,

hinged chain-links adapted to run in said tracks and provided with overhanging lips at their upper edges and laterally-extending lips at their lower edges, said laterally-extending lips fitting a groove in the track, rollers carried by said chain-links and arranged to bear against said vertical walls of the track, and fabric-gripping devices carried by said chain-links.

Dated this 25th day of August, 1905.

CHARLES L. TAYLOR.

Witnesses:

EDWIN H. TUCKER,

L. E. STONE.