

(No Model.)

E. KASTLER.

MECHANISM FOR REGULATING THE MOVEMENT OF CLOTH ROLLERS
OF LOOMS.

Patented Oct. 16, 1894.

Fig. 2. is a side view of the mechanism. It shows a large gear wheel with teeth on its outer circumference. A horizontal arm, labeled *A'*, is pivoted at its left end to a vertical support. A spring is attached to the arm near the pivot. A long rod, labeled *L*, is connected to the arm and extends to a circular component labeled *L'*. A curved lever, labeled *E*, is pivoted to the vertical support and has a hook-like end labeled *M*. A smaller wheel, labeled *B*, is mounted on the vertical support and has a gear-like rim. A rod, labeled *F*, is connected to the lever *E* and the wheel *B*. Other labels include *C*, *D*, *K*, *J*, *m*, *m'*, *g*, *a*, *h*, *i*, *Y*, *K*, *L*, *L'*, *A*, *B*, *C*, *D*, *E*, *F*, *G*, *H*, *I*, *J*, *K*, *L*, *M*, *N*, *O*, *P*, *Q*, *R*, *S*, *T*, *U*, *V*, *W*, *X*, *Y*, *Z*.

Fig. 3. is a top-down view of the mechanism. It shows a vertical support with a horizontal arm, labeled *C*, pivoted at its left end. A rod, labeled *L*, is connected to the arm and extends to a circular component labeled *L'*. A curved lever, labeled *E*, is pivoted to the vertical support and has a hook-like end labeled *M*. A smaller wheel, labeled *B*, is mounted on the vertical support and has a gear-like rim. A rod, labeled *F*, is connected to the lever *E* and the wheel *B*. Other labels include *A*, *B*, *C*, *D*, *E*, *F*, *G*, *H*, *I*, *J*, *K*, *L*, *M*, *N*, *O*, *P*, *Q*, *R*, *S*, *T*, *U*, *V*, *W*, *X*, *Y*, *Z*.

Witnesses
 J. M. Williamson
 Franklin

Smile R

A'

A B
 Inventor,
 Emil Kastler,
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MECHANISM FOR REGULATING THE MOVEMENT OF CLOTH-ROLLERS OF LOOMS.

SPECIFICATION forming part of Letters Patent No. 527,750, dated October 16, 1894.

Application filed March 16, 1894. Serial No. 503,902. (No model.)

To all whom it may concern:

Be it known that I, EMILE KASTLER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Mechanism for Regulating the Movement of the Cloth-Rollers of Looms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in the take up mechanism for looms, and it has for its object the provision of simple and efficient means for regulating the movements of the cloth roller directly from the roller, and to this end, the said invention consists in the mechanism constructed as hereinafter specified and claimed and shown in the accompanying drawings, in which—

Figure 1 is a side view of a part of a loom having my device applied thereto. Fig. 2, is a partial front view of the same, and Fig. 3 is a detail perspective view of the device.

Reference now being had to the details of the drawings, A designates a short or stud shaft that is suitably attached to the loom frame A' on which shaft it is journaled, so as to turn freely a wheel B, and along side the latter is pivoted on the shaft a swinging arm C.

To the face of the wheel B is secured a pinion *b*, which by a train of gears is connected with a cloth roller B', to enable the latter to be revolved by the rotation of the wheel B. In the drawings no support is shown for the wheel and pinion intermediate the pinion *b* and the gear on the cloth shaft, in order to simplify the illustration by reducing the parts shown.

Pivoted to the arm C is a pawl D that engages the periphery of the wheel B against which it is pulled with considerable friction by a bowed flat spring E that at one end is secured to the outer extremity of the arm C, and has its other end connected by a rod *e* to

said pawl. The pawl stands substantially tangential to the wheel so that when the arm C moves it in one direction, it will slip over the wheel B without revolving it, while when moved in the opposite direction, it will engage said wheel B with sufficient friction to rotate it.

Y is a handle whereby the pawl may be lifted from engagement with the wheel. The wheel has its periphery V-shaped in cross-section and the pawl is correspondingly grooved to engage it, and to produce friction has its wheel engaging faces covered with leather or other analogous material.

Extending outward from a collar *f*, that is fixed to the shaft A, is an arm F that at its outer end carries a pin *g* to which is pivoted a friction pawl G that is forced yieldingly against a wheel B by a coil spring *h*. Said pawl G serves to hold the wheel B against backward rotation when the pawl D is slipping over the same.

To the side of the arm C opposite wheel B is attached a plate I having a radially extending slot *i* by means of which a link J is adjustably attached to said arm. The outer end of the link is pivoted to the lower end of a pivoted arm K. Said arm K is moved by a spring N, in the direction which causes the pawl D to slip over the wheel B without revolving it, while the reverse movement is effected by rod L actuated by an eccentric L' the rod passing through an opening in a lug *k* carried by the arm K, and has a collar *l* to strike said lug *k*, and thereby swing the said arm K, and through it move the pawl D in the direction necessary to revolve the wheel B.

The feed is regulated by the size of the roll of cloth, by limiting the backward throw of the arm C by means of a pivoted rod or lever M, that has one end *m* in the plane of motion of said lever, and its other end *m'* arranged to engage the periphery of the roll of cloth.

As the diameter of the roll of cloth increases the bar M will be moved to change the position of the end *m* to cause it to engage the arm C at points successively farther and farther outward from the center of motion of said arm C. The spring is required on account of the variation in the throw of the

arm C caused by the engagement therewith of the end *m* of the lever M. The latter will operate to vary the throw as described because its end *m* is placed to engage the arm
5 C at a point to one side of a vertical line passing through the center of motion of the said arm C.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—
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In combination with the winding roller, the wheel B geared thereto, a pawl engaging said wheel, an arm C carrying said pawl and pivoted concentric with the wheel, a spring E

attached to said arm, a link *e* connecting the
spring and pawl, an eccentric connected to
said arm to move the arm in one and a spring
to move it in the other direction, and a lever
M engaging the cloth roller with one of its
ends and having the other end in the path of
movement of the pawl carrying arm, substan-
tially as shown and described. 15 20

In testimony whereof I affix my signature in presence of two witnesses.

EMILE KASTLER.

Witnesses:

GUSTAV GLOOR,
JOE PETERMANY.