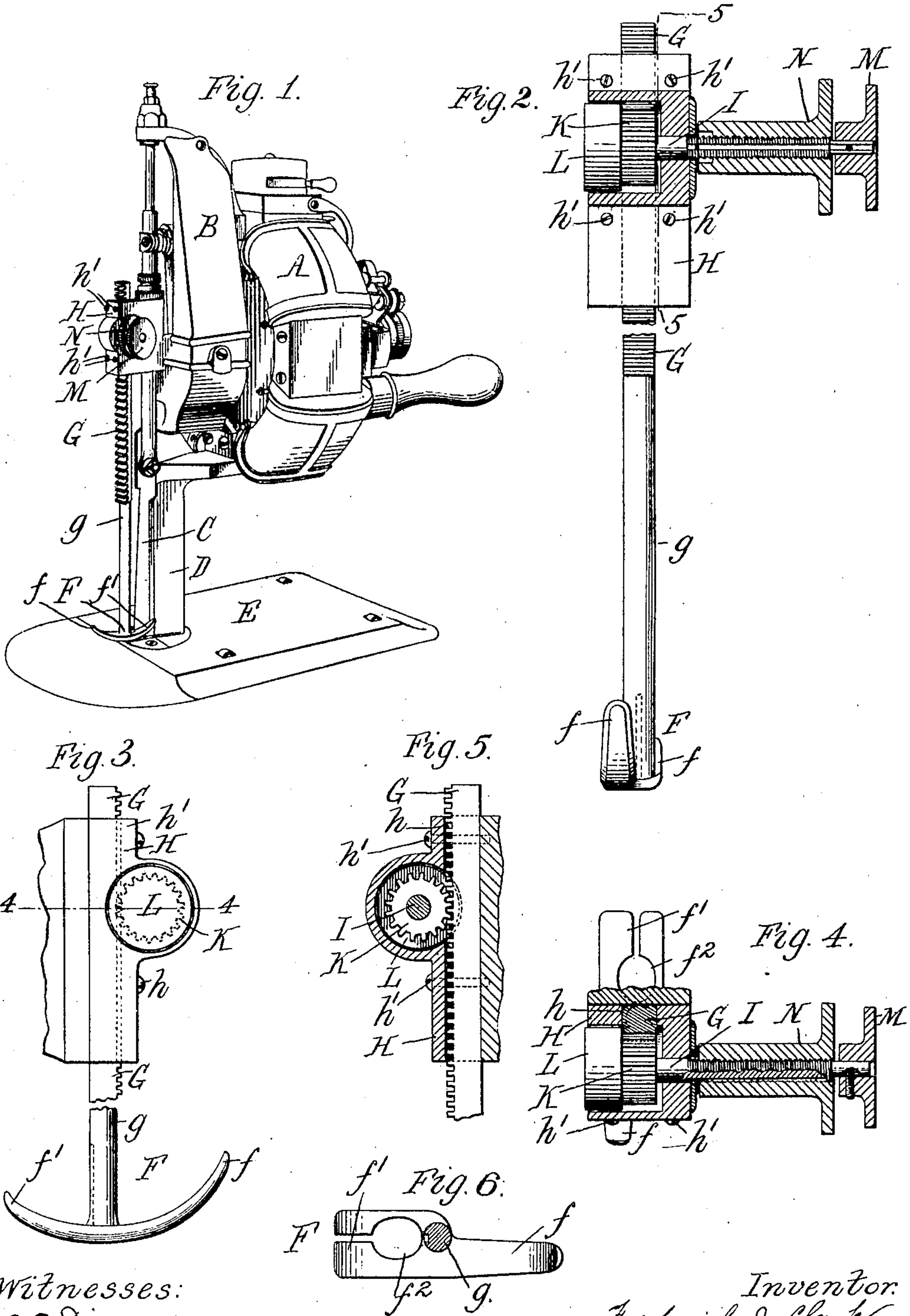


No. 869,419.

PATENTED OCT. 29, 1907.

F. J. CLARK.  
CLOTH CUTTING MACHINE.  
APPLICATION FILED NOV. 26, 1906.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

FREDERICK J. CLARK, OF BUFFALO, NEW YORK, ASSIGNOR TO EASTMAN MACHINE COMPANY,  
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## CLOTH-CUTTING MACHINE.

No. 869,419.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed November 26, 1906. Serial No. 345,153.

*To all whom it may concern:*

Be it known that I, FREDERICK J. CLARK, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and  
5 useful Improvement in Cloth-Cutting Machines, of which the following is a specification.

This invention relates more particularly to improvements in cloth cutting machines of that class having a reciprocating motor-operated knife for cutting the cloth.

10 In machines of this class, a presser foot is employed which travels along the top layer of the cloth in advance of the knife and serves to prevent disarrangement of the cloth by the action of the knife.

One object of this invention is to provide means for  
15 adjusting this presser foot and securing it in different positions, which can be easily operated and serves to prevent all play and rattle of the parts resulting from the vibrations of the machine.

As commonly constructed, the presser foot is located  
20 directly in front of the knife and has a slotted or bifurcated rearwardly-extending heel portion through which the knife passes. In this construction, the pattern line on the cloth directly in front of the knife is concealed and the operator can only see the line as it appears in  
25 front of the presser foot, some distance in advance of the knife, and therefore cannot tell exactly where the knife is cutting. This is especially disadvantageous in all cases where the lines of the pattern require sharp and angular turns of the knife, as the operator, not being  
30 able to see how far the knife has cut, cannot determine exactly when the machine should be turned to follow the pattern. This necessarily results in inaccurate cutting.

A further object of the invention is to so construct the  
35 parts of the presser foot, which embrace the knife, that they will not obstruct the operator's view of the lines of the pattern upon the cloth directly in front of the knife. This result is attained by enlarging the knife slot or opening in the heel portion of the presser foot,  
40 sufficiently in that portion which is adjacent to the front edge of the knife so that the cutting line of the pattern can be readily seen.

In the accompanying drawings: Figure 1 is a perspective view of a cloth cutting machine embodying the invention. Fig. 2 is a front elevation, partly in section,  
45 on an enlarged scale, of the presser foot and its adjusting device. Fig. 3 is a broken side elevation of the same. Fig. 4 is a horizontal section thereof, partly in plan, in line 4—4, Fig. 3. Fig. 5 is a sectional elevation thereof  
50 in line 5—5, Fig. 2. Fig. 6 is a plan view of the presser foot and section of the supporting leg.

Like letters of reference refer to like parts in the several figures.

The cloth cutting machine shown in Fig. 1 of the  
55 drawings is an electrically-operated reciprocating knife

machine of ordinary construction, except as hereinafter described, having an electric motor A mounted in a frame B and operatively connected to a reciprocating knife C. A standard D secured to a base or foot plate E supports the motor and knife-operating mechanism. 60 This standard has a vertical groove or way open at its front edge in which the reciprocating knife C travels and by which the same is guided.

F is a presser foot adapted to be secured at different desired elevations directly in front of the knife C in a 65 manner to be hereinafter described and to rest upon the top layer of the cloth which is being cut. This presser foot preferably has a forwardly-extending toe portion *f* at one side of the longitudinal center thereof, and a rearwardly-extending slotted or bifurcated heel 70 portion *f'* adapted to embrace the cutting knife C and the narrow front edge of the standard D. The knife slot in the presser foot is widened adjacent to the center of the foot to form an enlarged circular opening *f''*, which opening is directly in front of the knife C and 75 through which the operator can see the line of the pattern and the front edge of the cutting knife.

The presser foot is supported by a leg or post *g* extending upwardly therefrom and terminating in a toothed rack G which is actuated by an adjusting de- 80 vice upon the frame B for raising and lowering the presser foot. The toothed rack G preferably passes through and is guided by a vertical groove *h* in a block or casing H suitably secured to the frame B above the knife C by screws *h'*, or any other desired means. 85

I represents an adjusting shaft which is journaled in a hollow boss or portion of the block or casing H and has secured to it within said boss a pinion K which meshes with the toothed rack G. A locking disk or device L is also secured to or formed on the shaft I be- 90 side the pinion K within the hollow boss or casing. One end of the shaft I extends beyond the casing H and has secured thereon a milled head or finger wheel M by turning which the shaft and pinion can be operated to raise or lower the rack. The adjusting shaft is screw- 95 threaded between its head M and the side of the casing, and a threaded locking nut or sleeve N with an enlarged milled head or portion works on the threaded portion of the shaft, suitable washers being preferably provided between this locking nut and the side of the 100 casing to prevent the locking nut from being held against rotation with the shaft by friction against the casing and thereby tending to lock the shaft when it should be released.

The locking disk L is of somewhat greater diameter 105 than the pinion K so that it bears against one side of the rack bar G, as shown in Figs. 3 and 4. The locking disk L and pinion K are capable of a limited sidewise or longitudinal movement in the casing, and when the locking nut is turned in one direction it draws the lock- 110



ing disk over against the rack bar and firmly clamps the latter in its guideway.

The operation of the device is as follows: When the locking nut N is released, the pinion and its rack are  
5 free to move and the presser foot can be raised or lowered to any desired position by turning the adjusting head or wheel M, the locking nut N turning with the shaft I and thus maintaining its released position. When the presser foot has been adjusted to the desired  
10 height, the locking nut is turned on the shaft I, thus drawing the locking disk or member L into frictional engagement with the side of the rack G and locking the same in position against further movement.

The enlarged opening  $f^2$  in the knife-slotted heel  
15 portion of the presser foot enables the operator to clearly see the line of the pattern directly in advance of the moving knife as the machine is being operated, while the contracted portion of the slot adjacent to the sides of the knife and the edge of the standard serves to  
20 prevent any lifting or disarrangement of the layers of cloth resulting from the action of the knife and the movement of the machine.

I claim as my invention:

- 25 1. The combination of a presser foot or the like, a movable rack connected thereto, a pinion engaging said rack, a locking member connected to said pinion and adapted to engage said rack, and means for moving said locking member into engagement with said rack for locking the same, substantially as set forth.
- 30 2. The combination of a presser foot or the like, a movable rack connected thereto, a guide for said rack, a pinion engaging said rack, a locking member adjacent to said pinion and adapted to engage said rack, and means for moving said locking member to clamp said rack between said locking member and said guide for locking  
35 the same, substantially as set forth.

3. The combination of a presser foot or the like, a movable rack connected thereto, an adjusting shaft, a pinion on said shaft engaging said rack, a locking member secured to said shaft adjacent to said pinion, and means for  
40 moving said shaft to bring said locking member into engagement with said rack for locking the same, substantially as set forth.

4. The combination of a presser foot or the like, a movable rack connected thereto, an adjusting shaft, a pinion on said shaft engaging said rack, a locking member secured to said shaft adjacent to said pinion, and a device having  
45 a screw-threaded engagement with said shaft for moving the same to bring said locking member into engagement with said rack, substantially as set forth.

5. The combination of a presser foot or the like, a movable rack connected thereto, a guide for said rack, an adjusting shaft, a pinion on said shaft engaging said rack, a locking member secured to said shaft adjacent to said pinion, and means for moving said shaft to clamp said  
55 rack between said locking member and said guide for locking the same, substantially as set forth.

6. In a cloth cutting machine, the combination of a presser foot, a movable rack connected thereto, a supporting block secured to said machine and having a guide for  
60 said rack, an adjusting shaft journaled in said block, a pinion on said shaft engaging said rack, a locking member secured to said shaft adjacent to said pinion, and means for moving said shaft to clamp said rack between said locking member and said guide for locking the same, substantially as set forth.

7. In a cloth cutting machine, a presser foot having a slot through which the knife passes, said slot having a contracted rear portion adapted to embrace the knife, and an enlarged portion adjacent to the cutting edge of the knife  
70 through which the pattern directly in advance of the knife can be seen, substantially as set forth.

Witness my hand, this 12th day of November, 1906.

FREDERICK J. CLARK.

Witnesses:

C. P. STEVENSON,  
E. C. HARD.