

No. 756,787.

PATENTED APR. 5, 1904.

C. F. GOFORTH.
RUFFLER FOR SEWING MACHINES.
APPLICATION FILED MAR. 13, 1903.

NO MODEL.

Fig. 1.

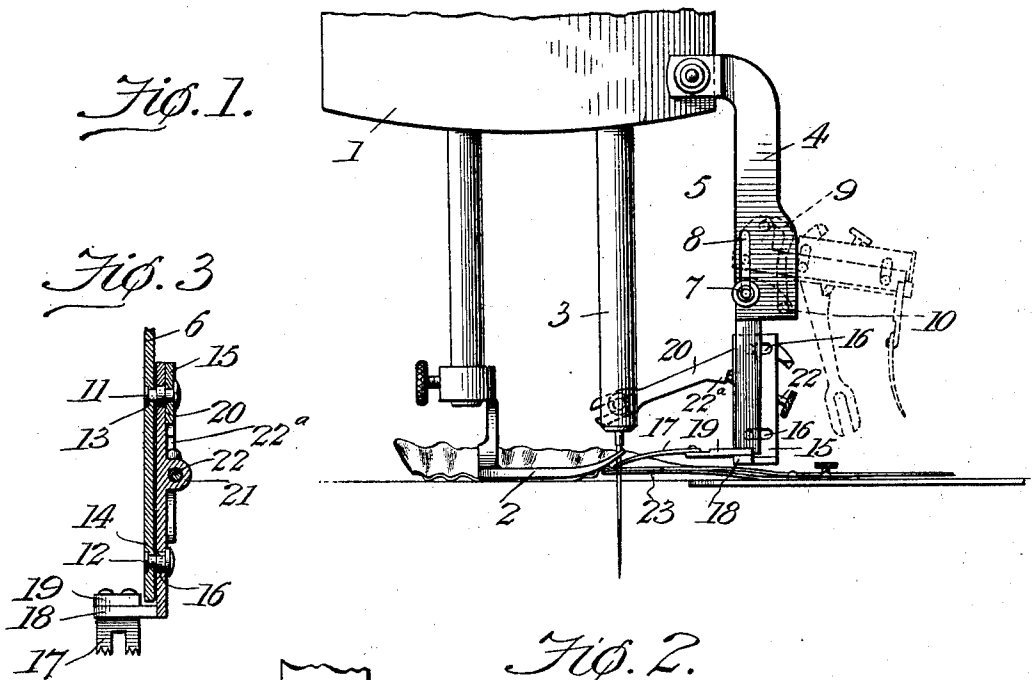


Fig. 3.

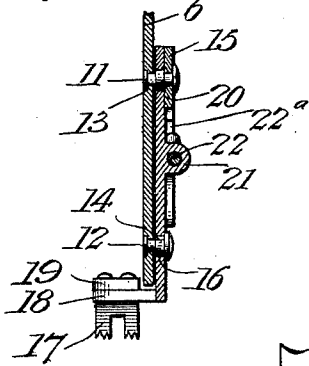
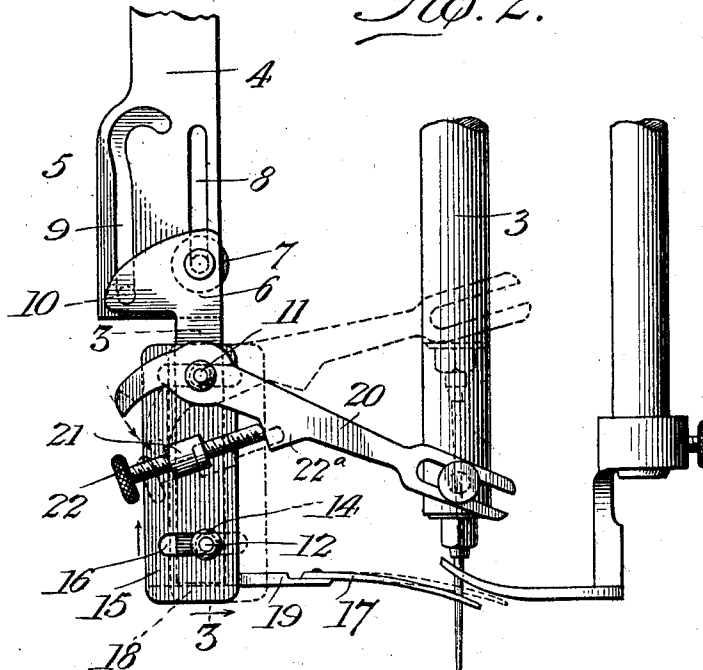


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES FRANKLIN GOFORTH, OF WICHITA, KANSAS.

RUFFLER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 756,787, dated April 5, 1904.

Application filed March 13, 1903. Serial No. 147,646. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FRANKLIN GOFORTH, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented a new and useful Ruffler for Sewing-Machines, of which the following is a specification.

My invention relates to rufflers for sewing-machines, and has for its object to produce a device of this character which will be simple of construction, efficient in operation, susceptible of ready attachment or removal to or from the machine, and one in which the ruffler-blade will act with a reciprocating movement upon the goods, as distinguished from the usual swinging movement.

The invention comprises the details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation illustrating my improved ruffler attached to a machine. Fig. 2 is a similar view of the device as viewed from the opposite side. Fig. 3 is a vertical sectional view on the line 3 3 of Fig. 2.

Referring to the drawings, 1 indicates a portion of a sewing-machine head which carries the usual presser-foot 2 and needle-bar 3. These parts may be of the usual or any desired construction, inasmuch as they are foreign to my invention.

My improved ruffler comprises a shank 4, comprising an upper member 5, preferably in the form of a flat metal plate bent angularly at its upper end for attachment, by means of a set-screw or the like, to the head of the machine, and a lower member 6, pivotally connected to the upper member by means of a set-screw 7. The upper member 5 of the shank is slotted at its lower end, as at 8, for engagement by the set-screw, and is further provided with a groove 9, having a vertically-disposed lower portion and a curved upper portion. The lower member of the shank is provided with a horizontal stud 10, adapted to travel in the groove 9 and to engage the upper curved portion thereof to lock the lower member when the latter is swung upward in the manner and for the purpose hereinafter described.

11 and 12 indicate two horizontal studs screwed into the side face of the shank and disposed vertically one above another. These studs, which project horizontally from the shank, have mounted thereon, respectively, rollers 13 14.

15 is a block or member in the form of a metal plate provided at its upper and lower ends with slots 16, which are mounted over the rollers 13 and 14, by which means the block is sustained by the shank and adapted to slide or reciprocate thereon in a horizontal plane for the purpose of imparting a reciprocatory motion to the ruffler-blade 17, carried thereby.

18 indicates a horizontal finger formed at the lower end of the sliding block, and 19 a horizontal arm or plate secured to the finger by means of rivets or the like, and to this arm the ruffler-blade 17 is attached by screws to adapt it to be readily removed and replaced by a new blade or a blade of a different length. The ruffler-blade is composed of spring metal and has its outer end curved downward and serrated for engagement with the goods in the usual manner, and is also slotted, as usual, to lie at each side of the needle.

20 indicates a normally horizontally disposed finger pivoted at its inner end on the upper stud 11 and held in place thereon by means of a suitable thumb-nut, a similar nut being applied to the outer end of the lower stud 12. The inner end of the finger 20 is bent downward over the edge of the sliding block 15, while its outer end is slotted for engagement with the set-screw on the needle-bar, by which means the finger will be reciprocated in a vertical plane by the movements of the needle-bar in the usual manner.

21 indicates a perforated lug extending horizontally from the face of the sliding block 15 and through which is tapped a set-screw 22, adapted to contact at its inner end with a suitable lug 22^a, formed on the lower edge of the finger 20, when the latter is reciprocated by the needle-bar.

23 indicates a separator-plate, which overlies the shuttle-plate of the machine and over which the ruffler-blade operates in the usual manner, the separator-plate being attached to the machine by a set-screw, as usual, and pro-

vided with a needle-slot and fabric-guides, as is customary.

The operation of the device is as follows: The ruffler being attached to the head of the machine, as indicated in Fig. 1, with the horizontal finger 20 in engagement with the needle-bar, the movements of the latter will reciprocate the finger in a vertical plane, and upon its upward movement the finger will, owing to its end being bent around the edge of the sliding block, move the same in one direction, and upon its downward movement the lug formed on the finger engaging with the set-screw carried by the block will move the latter in the opposite direction, thus reciprocating the ruffler-blade in a horizontal plane for action on the goods, as will be readily understood. The length of the movement of the blade may be regulated or varied by regulating the set-screw carried by the block in order that the lug on the finger may engage the same at longer or shorter intervals. If during the operation of ruffling the material under treatment it is desired to employ the machine for a short time for plain sewing, the ruffler may be turned upward out of position, as indicated in dotted lines in Fig. 1, to enable such use of the machine without necessitating the removal of the ruffler. When the ruffler is thus turned, the stud 10 will engage the groove 9, and thus hold the parts, as will be readily understood.

From the foregoing it will be seen that I produce a simple, efficient, and inexpensive

ruffler which acts upon the goods with a reciprocatory motion horizontally over the face thereof, as distinguished from the usual up-and-down swinging movement, with a consequent more perfect gathering or ruffling of the goods without risk of defacing the material, and in attaining these ends I do not limit or confine myself to the details herein shown and described, as various changes may be made therein without departing from the spirit or scope of my invention.

Having thus described my invention, what I claim is—

In a ruffler for sewing-machines, the combination with a shank having an upper member adapted for attachment to the machine and provided with a slot and groove in parallel relation, the groove being curved at its upper end, and a lower member pivoted in the slot and having a stud fitting within the groove, of a block slidably connected with the lower member of the shank, a ruffler-blade carried by the block, and a finger pivotally connected to the shank and operable by the needle-bar of the sewing-machine, said finger being operatively connected with and serving to reciprocate the block.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES FRANKLIN GOFORTH

Witnesses:

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