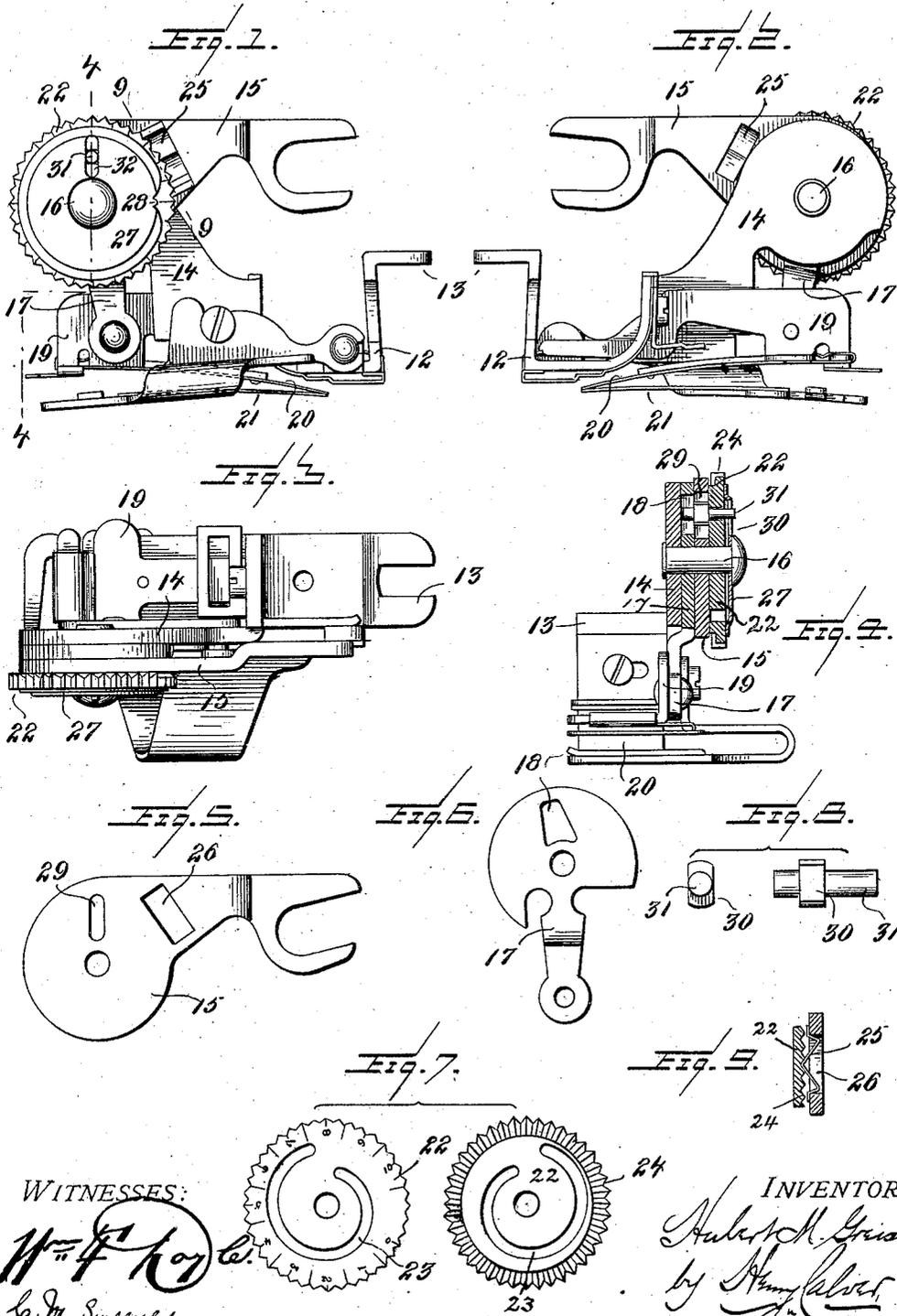


No. 851,232.

PATENTED APR. 23, 1907.

H. M. GREIST.
SEWING MACHINE RUFFLER.
APPLICATION FILED MAR. 5, 1907.



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UNITED STATES PATENT OFFICE.

HUBERT M. GREIST, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE GREIST MANUFACTURING COMPANY, A CORPORATION OF CONNECTICUT.

SEWING-MACHINE RUFFLER.

No. 851,232.

Specification of Letters Patent.

Patented April 23, 1907.

Application filed March 5, 1907. Serial No. 360,679.

To all whom it may concern:

Be it known that I, HUBERT M. GREIST, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented or discovered certain new and useful Improvements in Sewing-Machine Rufflers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to that class of sewing machine rufflers in which the ruffling blades are operated from the needle-bars of the machines; and the present invention has for its object to provide a ruffler of this class in which the movements of the ruffling blades can be conveniently regulated by a construction which preferably varies the forward position of the said ruffling blade somewhat less than the backward position thereof in changing the lengths of the strokes of the said blade.

In the accompanying drawings, Figures 1 and 2 are opposite side views of a ruffler embodying the present invention. Fig. 3 is a plan view of the same, and Fig. 4 a section on line 4—4 of Fig. 1. Fig. 5 is a detail view of the operating lever. Fig. 6 a detail view of the secondary lever or pendulum. Fig. 7 represents, in opposite side views, the regulating disk. Fig. 8 shows the regulating pin in enlarged detail views, and Fig. 9 a detail section on line 9—9, Fig. 1, showing the manner in which the holding spring is seated in the operating lever.

Referring to the drawings, the frame of the attachment comprises a presser-foot portion 12 having a shank 13 for attachment to the presser-bar of a sewing machine, and a rigid inclined standard 14 attached to or formed integral with the presser-foot 12. The operating lever 15, which is forked at its forward end for engagement with a screw or stud on the needle-bar of the sewing machine, is pivoted to the standard 14 by a stud or rivet 16. Also pivotally mounted on the stud or rivet 16 is a swinging arm or pendulum lever 17 which is interposed between the operating lever and said standard, and the upper portion of which is provided with an opening 18, said swinging arm or pendulum being pivotally connected at its lower end to the sliding ruffler blade carrier 19 to which is attached, in a well-known manner, a ruffling blade 20 co-operating in the usual manner

with a separator blade 21. Also pivotally mounted on the stud or rivet 16 is a regulating disk 22 provided with an eccentric slot 23, said disk being toothed or roughened at its periphery so that it may be readily turned by the thumb and finger of the operative, and the said disk being provided on its inner face with a circular series of teeth or serrations 24, which teeth or serrations are engaged by a holding spring 25 seated in a recess 26 in the operating lever 15, so that while the said disk will be free to be turned independently of said lever, for the purpose of regulating the throw of the said ruffler blade, the said disk will oscillate with the said lever as the latter is vibrated, being retained in operative connection with the said lever by the spring 25 which latter, however, will yield when the said disk is turned by the operative to vary the throw of the ruffler blade. Outside of the regulating disk 22 on the stud or rivet 16 is an indicator disk 27 preferably provided with a pointer 28 which extends adjacent to the index marks on the outer face of the said disk.

The operating lever 15 is provided with a slot 29 in which is seated a flattened portion 30 formed on a sliding regulating pin 31 which extends rearward into the opening 18 in the upper portion of the swinging arm or pendulum 17, and which pin also extends forward through the eccentric slot 23 in the regulating disk 22 and into a guide slot 32 in the indicator disk, so that these parts are connected together, but with more or less lost motion between the operating lever 15 and the swinging arm or pendulum 17 depending upon the radial position of the said pin 31, such position of said pin being determined by the position of the regulating disk. Thus by moving the said pin outward from the center of motion of the lever 15 on the stud or rivet 16 the throw of the swinging arm or pendulum 17 will be increased and the throw of the ruffling blade will be correspondingly increased with a given movement of the operating lever; this result being due not only to the radial position of said pin but also to the peculiar shape of the opening 18 in the upper part of the swinging arm or lever 17, so that in varying the throw of the ruffling blade the variation of the forward position of said blade will be less than the variation of the backward position thereof at

the extreme points of movement of said blade.

The improved construction is simple and compact and provides a ruffler which may be manufactured at comparatively little cost, but which is convenient and efficient in use.

Having thus described my invention I claim and desire to secure by Letters Patent:

1. In a sewing machine ruffling attachment, the combination with a ruffling blade, of an operating lever provided with a radial slot, a swinging arm or pendulum lever having an opening, a regulating disk provided with an eccentric slot, an indicator disk also provided with a radial slot, a pin seated in said radial slot of the said operating lever and extending rearward into the opening in said swinging arm or lever, and also forward through said eccentric slot in said regulating disk and into the said radial slot of said indicator disk, and means for holding the said regulating disk in operative connection with the said operating lever, so that in the operation of the ruffler the said parts can be moved together, said means permitting the said regulating disk to be adjusted relative to said lever.

2. In a sewing machine ruffling attachment, the combination with a ruffling blade, of an operating lever provided with a radial slot, a swinging arm or pendulum lever having an opening, a regulating disk provided with an eccentric slot, an indicator disk also provided with a radial slot, a pin seated in said radial slot of the said operating lever and extending rearward into the opening in said swinging arm or lever, and also forward through said eccentric slot in said regulating disk and into the said radial slot of said indicator disk, and means for holding the said regulating disk in operative connection with the said operating lever, so that in the operation of the ruffler the said parts can be moved together, said means permitting the said regulating disk to be adjusted relative to said lever and comprising a spring carried by said operating lever and engaging teeth or serrations on said regulating disk.

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

HUBERT M. GREIST.

Witnesses:

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W. C. GREIST.