

(No Model.)

C. GROTZ.

RUFFLING ATTACHMENT FOR SEWING MACHINES.

No. 272,427.

Patented Feb. 20, 1883.

Fig. 1.

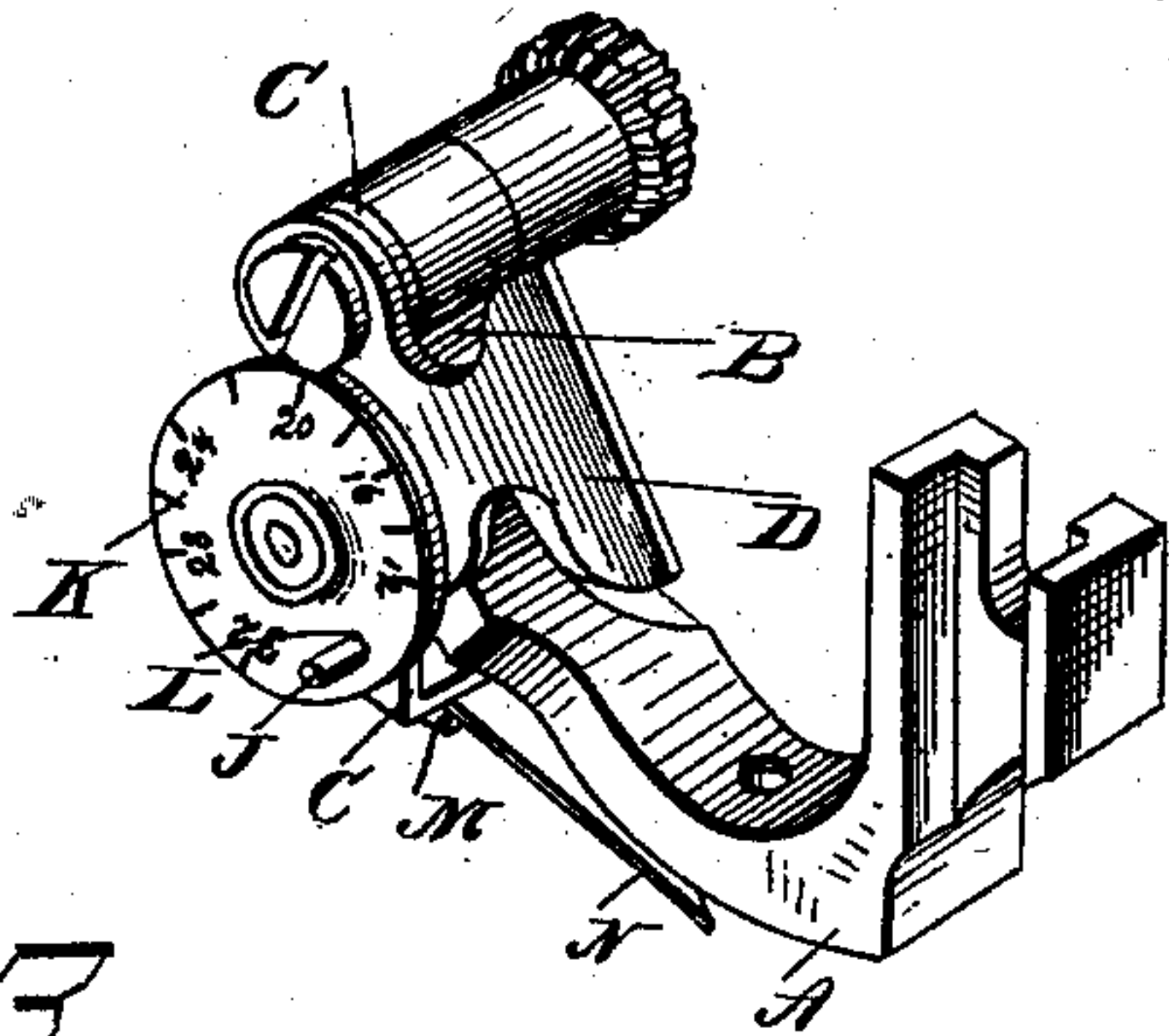


Fig. 2.

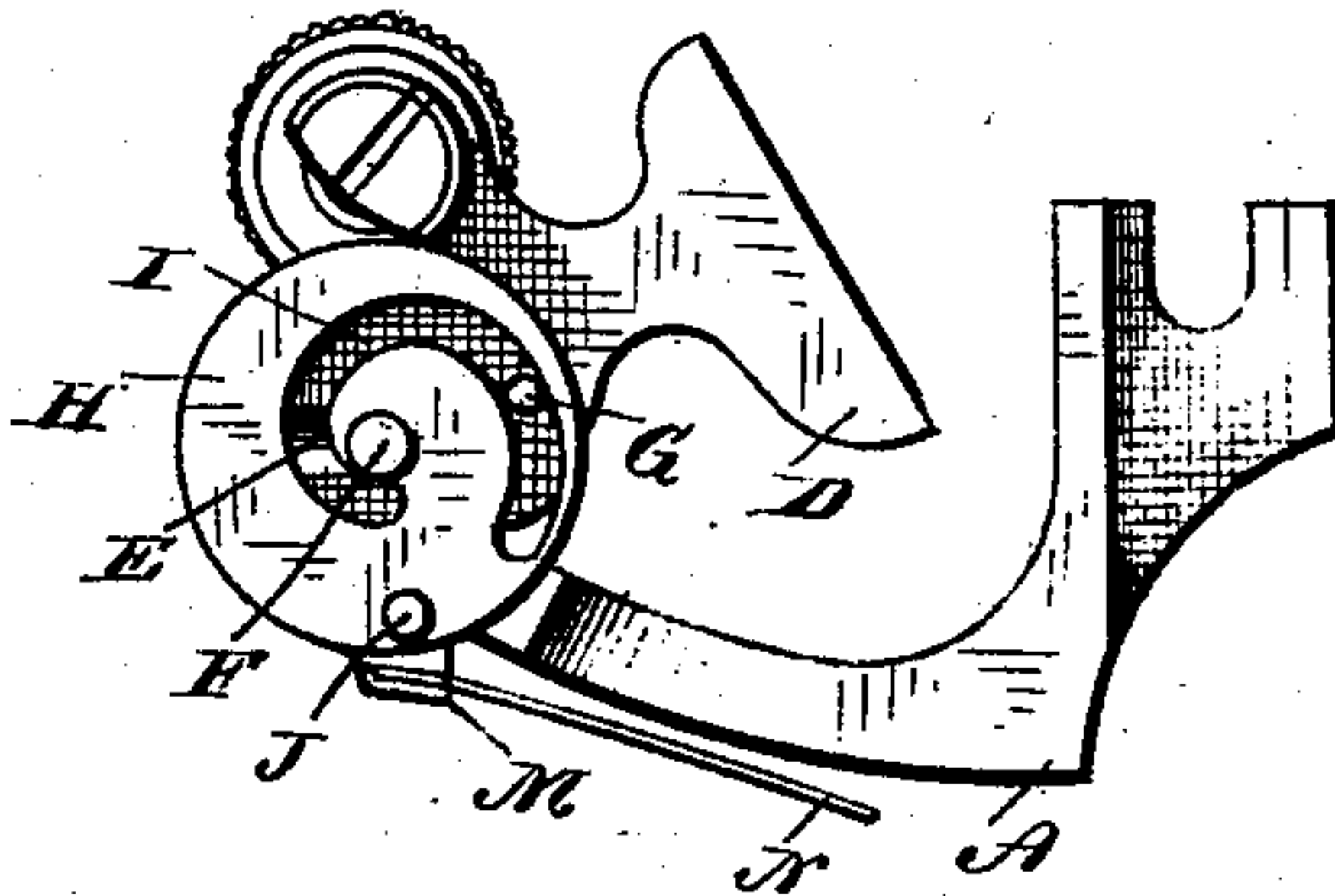


Fig. 3.

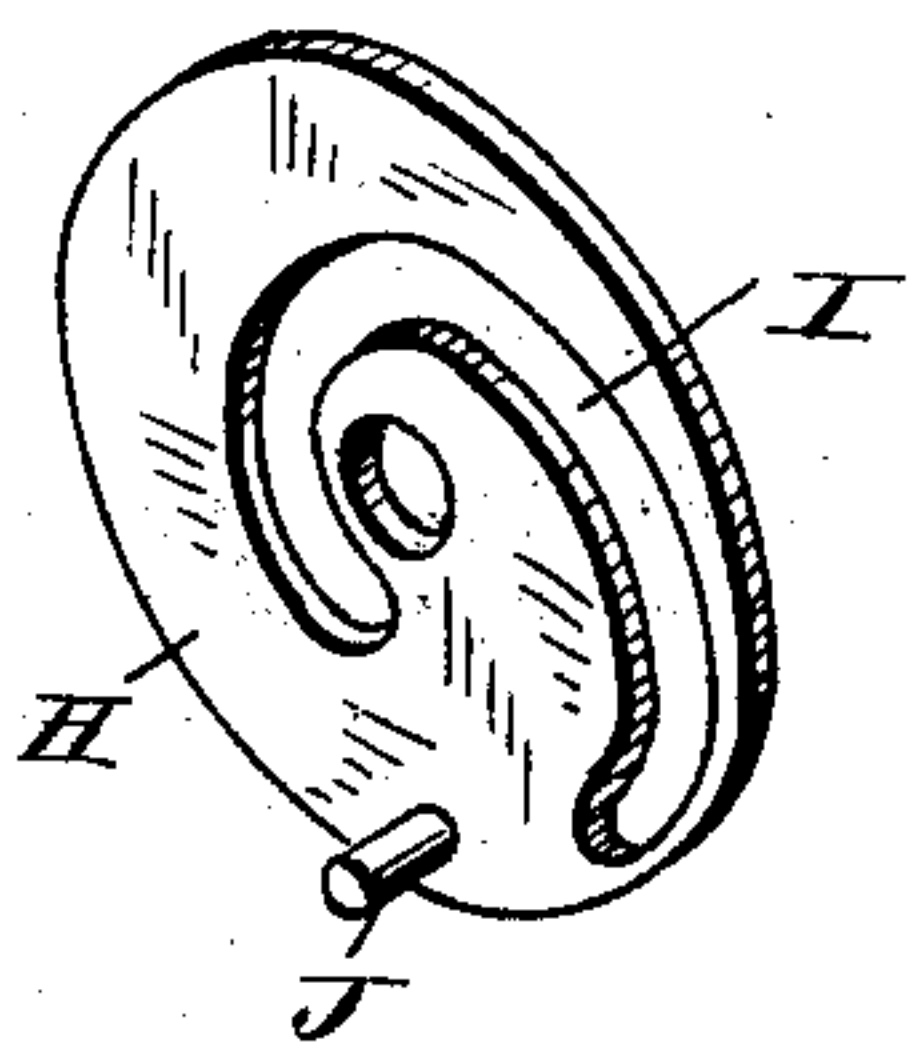


Fig. 4.

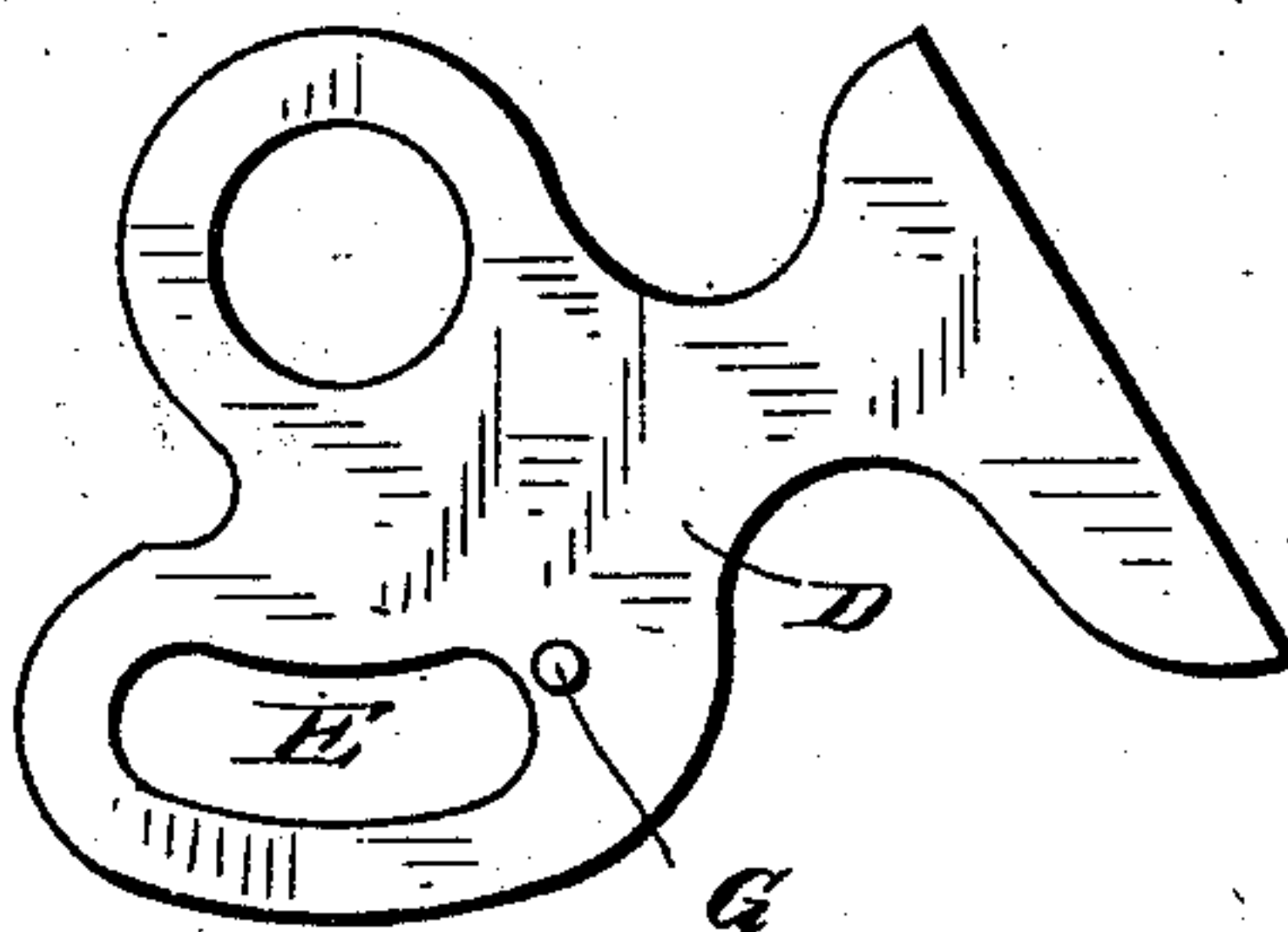


Fig. 5.

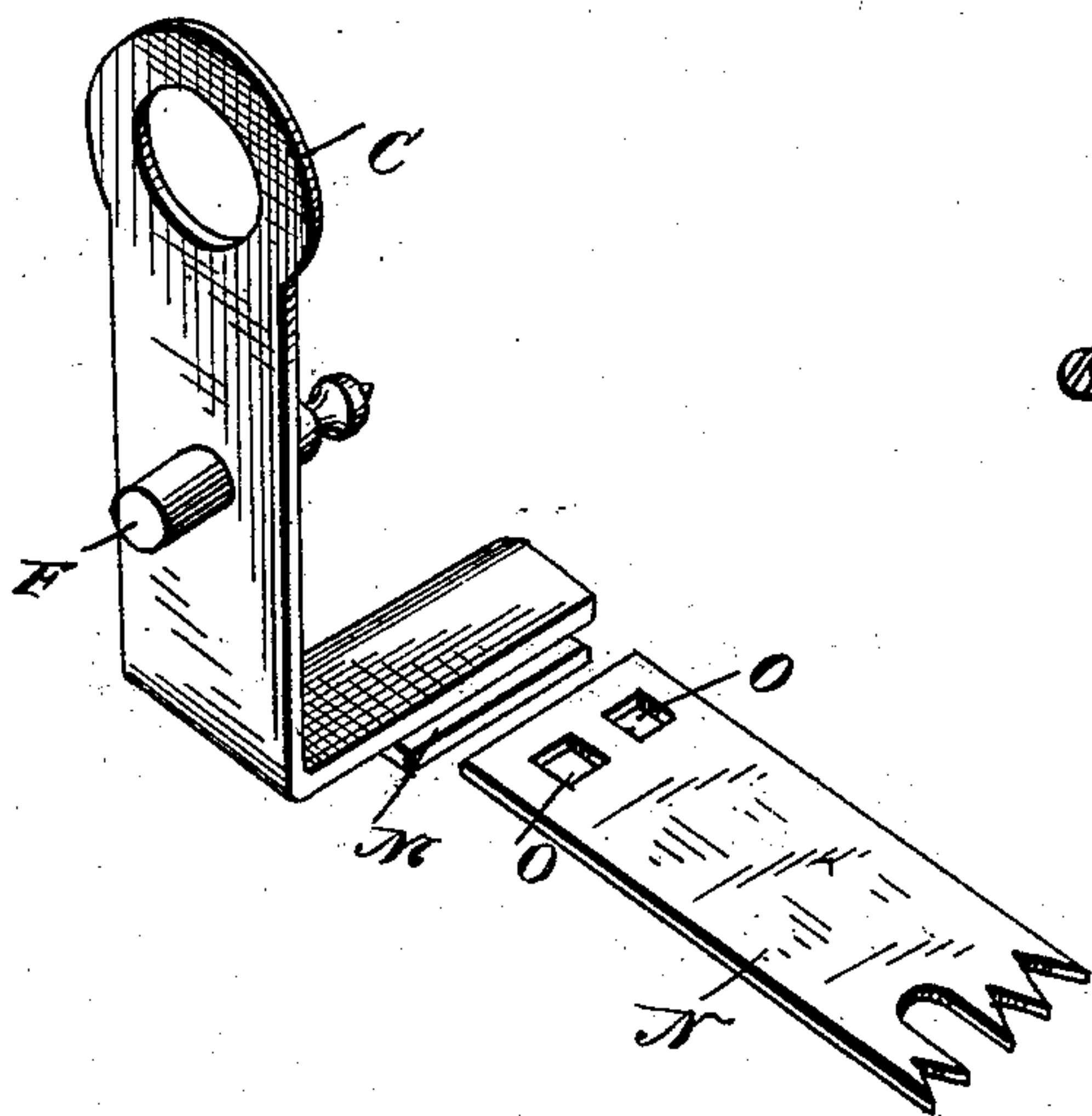
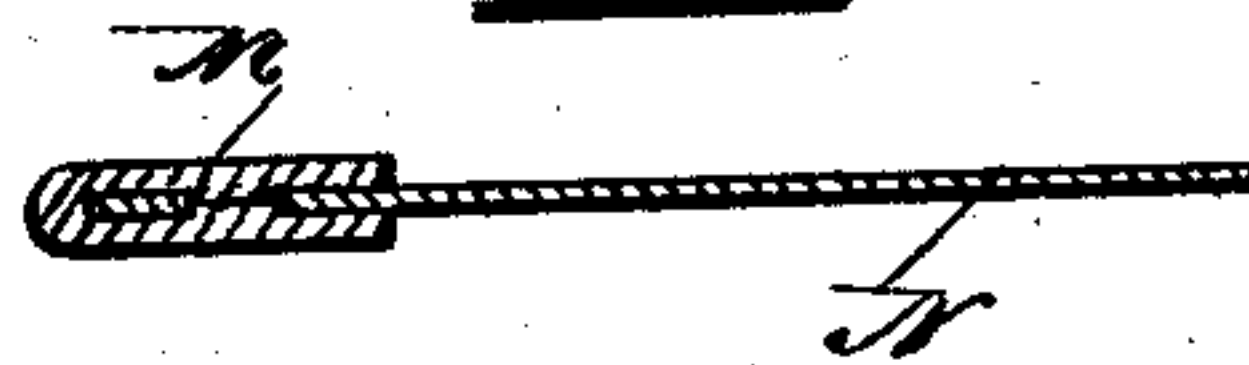


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES GROTZ, OF OSKALOOSA, IOWA, ASSIGNOR TO THE GARRETSON RUFFLER COMPANY, OF SAME PLACE.

RUFFLING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 272,427, dated February 20, 1883.

Application filed October 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GROTZ, a citizen of the United States, residing at Oskaloosa, in the county of Mahaska and State of Iowa, have invented a new and useful Ruffling and Shirring Attachment for Sewing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to ruffling and shirring attachments for sewing-machines; and it consists in certain improved mechanism for adjusting the ruffling-blade carrier and the operating plate or lever in relation to each other, for the purpose of regulating the fullness of the gathers.

I have in the drawings hereto annexed shown my improvements applied to the ruffling and shirring device for which Letters Patent of the United States were issued to Thomas B. Garretson on August 29, 1882, No. 263,332; but I would have it understood at the outset that my improvements may, by making such modifications as will readily suggest themselves to those skilled in the art to which it appertains, be applied to ruffling and shirring devices of other kinds and patterns without departing from the spirit of my invention.

In the drawings, Figure 1 is a perspective view of a ruffling and shirring attachment having my improvement. Fig. 2 is a side view, the cap plate or disk having been removed. Fig. 3 is a perspective view of the adjusting-disk detached. Fig. 4 is a detail view of the operating plate or lever. Fig. 5 is a detail view of the ruffling-blade and carrier previous to being joined together, and Fig. 6 is a sectional view taken vertically through the same after being connected.

Corresponding parts in the several figures are denoted by like letters of reference.

In the drawings, A represents the presser-foot, forming part of the ruffling device, and adapted to be attached to the presser-bar of a sewing-machine. Said presser-foot has at its front end an arm, B, to the side of which the carrier C is pivoted. A spring is employed to force the carrier C in a rearward direction; but in the construction and arrangement of this mechanism no novelty is here claimed.

Pivoted upon the same fulcrum as the carrier C is the operating plate or lever D, which

has a segmental slot, E, through which extends a stud, F, projecting laterally from the carrier C. Lever D has a laterally-projecting stud, G, at the rear end of slot E.

H is the adjusting-disk, which is pivoted upon the stud F, closely adjoining the lever D. Said disk has an eccentric slot, I, through which extends the stud G of lever D, and said disk is provided with a crank or handle, J, by means of which it may be readily turned upon its pivot or journal.

K is the cap plate or disk, which is pivoted upon the end of stud F, adjoining disk H, and provided with an opening, L, through which the handle J of said disk extends. This cap-plate turns with the disk H, which it covers and protects. It may also be graduated, as shown, in order to indicate the relative position of the carrier and lever.

The operation will be readily understood. The carrier is in this case operated by the needle-bar of the machine striking the beveled rear end of the lever D. Hence by adjusting said lever D so that it will be struck by the needle-bar earlier or later in its downward movement, as may be desired, the required length of stroke may be imparted to the ruffling-blade, and the fullness of the gathers or ruffles thus be regulated. To adjust the lever D it is only necessary to turn the disk H by means of handle J. The eccentric slot I will then guide the stud G of lever D in such a manner as to raise or lower said lever, as required.

The carrier is provided at its lower end with a C-shaped clamp, M, to receive the ruffling-blade N, which is constructed, in the usual manner, of steel, and provided at its inner end with perforations O. Said inner end is inserted into the clamp M, which is then compressed forcibly, thereby forcing part of the metal of which it is composed into the openings O, and thus holding the blade securely. In this manner I dispense with the use of rivets and attach the ruffling-blade in a cheap and exceedingly durable manner. This method of connecting the ruffling-blade with the carrier is not herein claimed; but I reserve the privilege of making it the subject of a future application for Letters Patent.

I claim and desire to secure by Letters Patent of the United States—

1. In a ruffling and shirring attachment for sewing-machines, the combination of the ruffling-blade carrier, the operating-lever pivoted upon the same fulcrum as said carrier, and provided with a laterally-projecting stud, and with a segmental slot to receive a stud extending laterally from the carrier, and a regulating-disk journaled upon the carrier-stud, and having an eccentric slot engaging the stud of the operating-lever, as set forth.

2. The herein-described means for adjusting in relation to each other the ruffling-blade carrier and the operating-lever of a ruffling and shirring attachment for sewing-machines, the same consisting of an eccentrically-slotted disk pivoted or journaled permanently to the one of said parts, and engaging by its eccentric slot a guide-stud projecting from the other, whereby by turning said disk the said carrier and

lever may be adjusted to and held in various positions in relation to each other, as set forth.

3. The combination, with the regulating-disk pivoted upon a stud projecting laterally from the ruffling-blade carrier, and provided with an eccentric slot engaging a stud which projects from the operating-lever, and with a crank or handle, of the graduated cap or covering plate mounted upon the carrier-stud, adjoining the regulating-disk, and having an opening through which the handle of said disk projects, as set forth.

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

CHARLES GROTZ.

Witnesses:

JOHN F. LACEY,

SETH P. HAWKINS.