No. 621,039. Patented Mar. 14, 1899.

G. H. W. CURTIS.

SEWING MACHINE FELLER.

(Application filed Apr. 28, 1898.)

(No Model.)

Fig. 1.

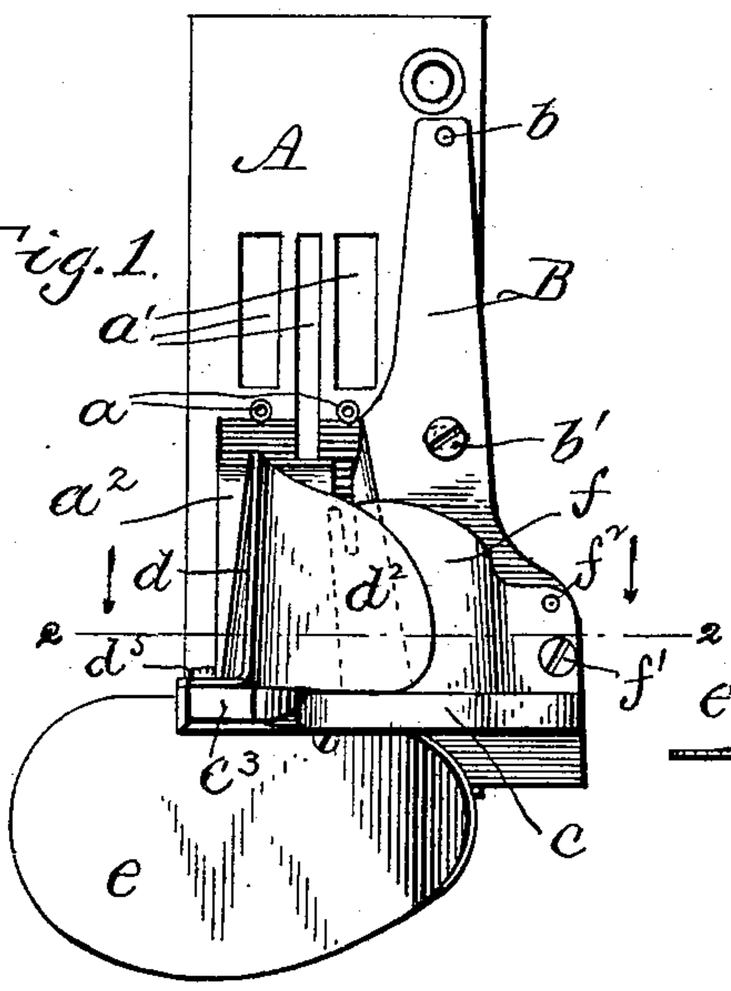


Fig. 2.

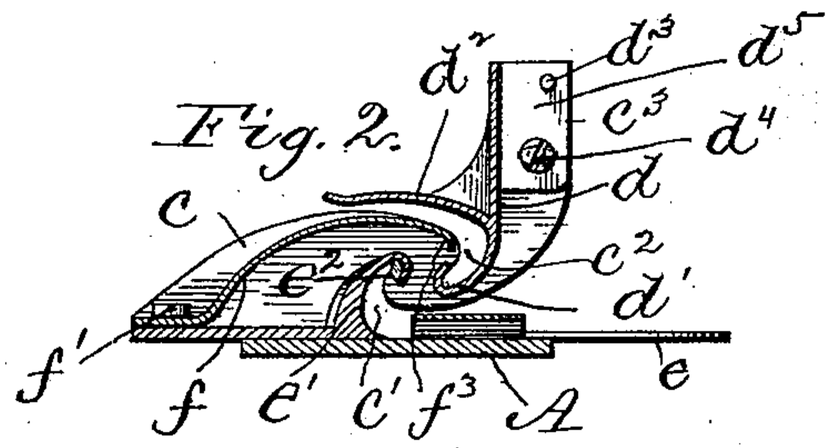


Fig. 3.

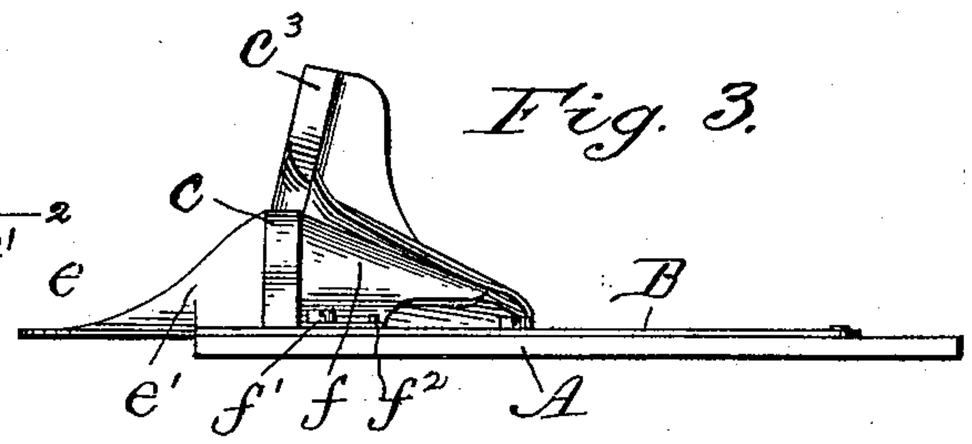


Fig. 4.

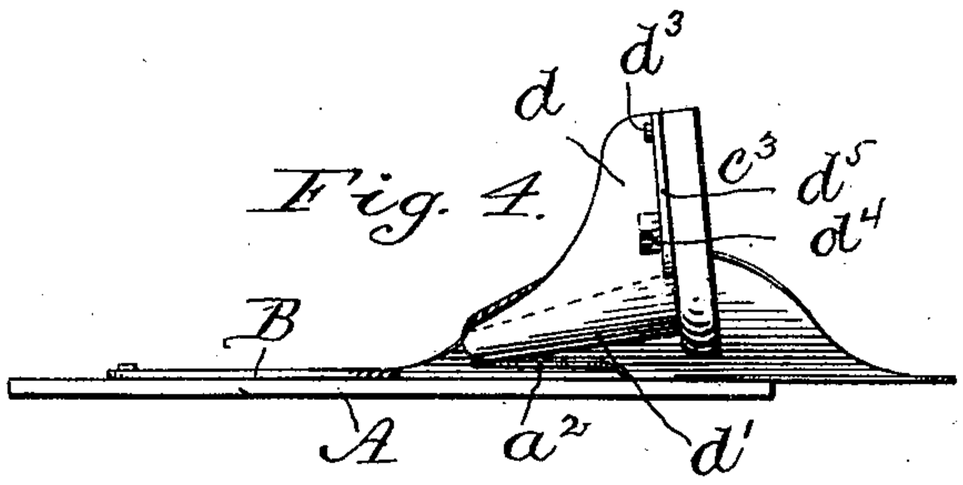


Fig. 5.

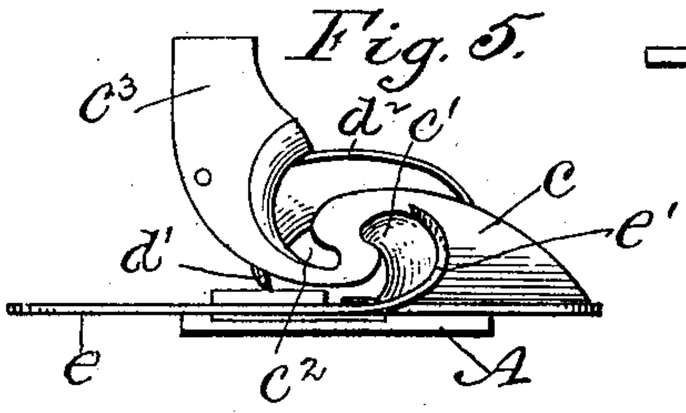


Fig. 6.

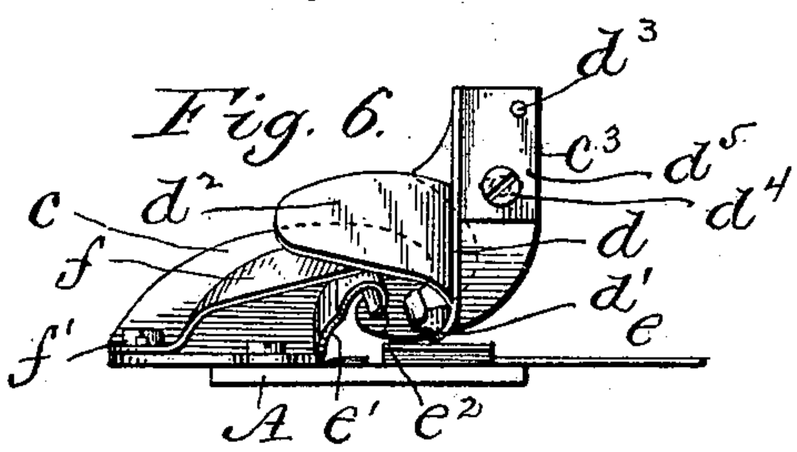


Fig. 7.

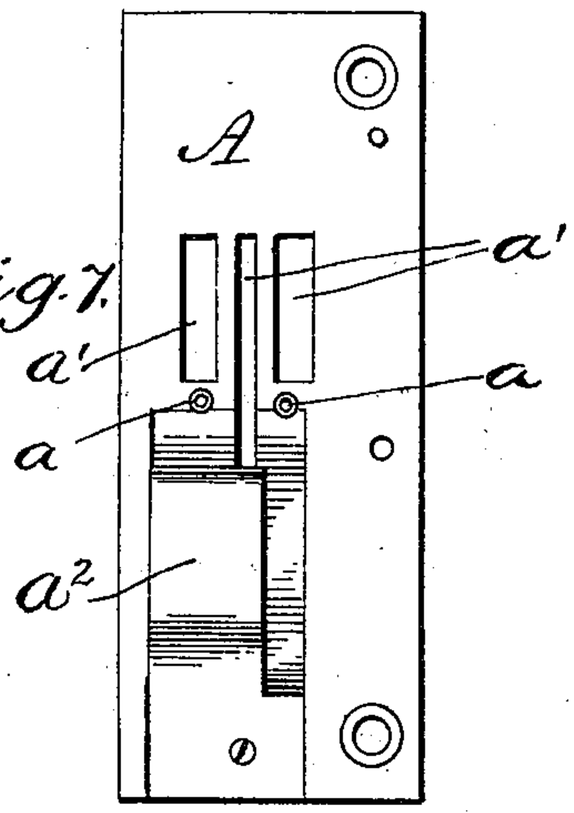
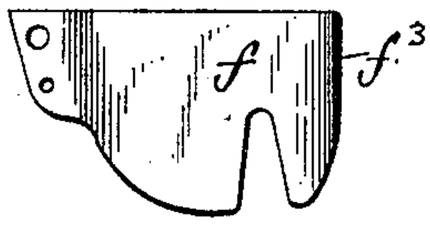


Fig. 8.



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by Henry Calvert,
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE H. W. CURTIS, OF NEW YORK, N. Y., ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, OF NEW JERSEY.

SEWING-MACHINE FELLER.

SPECIFICATION forming part of Letters Patent No. 621,039, dated March 14, 1899.

Application filed April 28, 1898. Serial No. 679,096. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. W. CURTIS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sewing-Machine Fellers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has for its object to provide a sewing-machine lap-seam feller adapted for use in connection with fabrics of varying thicknesses and by the use of which lap-seams crossing lap-seams may be made in heavy goods without danger of clogging or choking the feller when the thick parts of the work at the crossing seams are passing through the same.

In the accompanying drawings, Figure 1 is a plan view of the improved feller and of a sewing-machine throat-plate to which the feller is attached. Fig. 2 is a cross-section on line 2 2, Fig. 1. Figs. 3 and 4 are views, from opposite sides, of the feller and throat-plate; and Figs. 5 and 6 are opposite end views of the same. Fig. 7 is a plan view of the throat-plate with the feller removed, and Fig. 8 a detail view of a spring-wing constituting a part of the feller.

A denotes a throat-plate intended for a two-needle sewing-machine and provided with two needle-holes a and with feed-openings a'.

B denotes an arm or shank which is preferably adjustably and removably attached to the throat-plate by means of a dowel-pin b, passing through a hole in said arm or shank, and a screw b', passing through a slot in the said arm or shank which is slightly larger than the diameter of the shank of the screw, so as to permit of a slight lateral adjustment of the feller, which is mounted on said arm or shank for the purpose of centering the feller relative to the needles of the machines with which the feller is to be used. The arm or shank B is provided with a transverse rigid arm c, having two curved slots c' and c^2, the front faces of which are chamfered or rounded off to permit of the free entrance of the goods to the scroll portions of the feller. Adjustably attached to the outer upright portion or standard c^3 of the arm c is a plate d, provided with an under curled part d' and with a horizontally-extending wing d^2, these parts constituting one scroll part of the feller. The said plate d is attached to the standard c^3 by a dowel-pin d^3 and the screw d^4, passing through a slot in a right-angular portion d^5 of the plate d, this slot through which the said screw passes admitting of a slight lateral adjustment of the said plate, and thus permitting the feller to be slightly widened or narrowed for different kinds of work.

Beneath the lower curved portion d' of the scroll (formed by the plate d and its wing d^2) is arranged a spring a^2, which is attached to the throat-plate A and which holds the work up close to the said scroll. The said spring is adapted to yield when necessary, as when a thick portion of the work is passing through the feller.

Attached to the shank B on the feller and to the cross-arm c is a plate e, the right-hand portion of which is curved upwardly at e' and curled over at e^2 to form the lower scroll of the feller. The plate e serves as a support for the goods and to assist in guiding them as they are introduced into the lower scroll of the feller. Above this lower-scroll part of the feller is arranged a spring-wing f, which is attached to the shank or arm B by a screw f' and dowel-pin f^2. This spring-wing extends over the lower scroll of the feller and beneath the wing d^2 of the upper-scroll part of the feller and has a downwardly-curved inner end portion f^3, which assists in properly folding the goods within the feller, the said spring-wing being adapted to yield when necessary to permit thick portions of the work to pass through the feller.

As the arm c, with its curved entrance-slots c' and c^2, is of comparatively thick metal, it is possible to round or chamfer off the edges of the walls of the said slots, so that thick portions of the work can readily be guided into the feller without danger of choking the same or without catching on the front entrance portions of the feller which these slots constitute.

The operation of this improved feller is similar to that of other lap-seam fellers. One section or piece of the work is placed upon

the plate *e* with its edge curled up into the entrance-slot *c'* and the lower scroll *e' e²* of the feller, while the other section of the work is placed over the arm *c* and wing *f* with its edge curled downward into the entrance-slot *c²* and the upper scroll *d' d²* of the feller, the edges of the two pieces of the work as the latter is fed forward being properly interlocked or curled into each other by the two scroll portions of the feller, and when the feller is used with a two-needle sewing-machine the interlocking portions of the two pieces of work will be secured by two seams formed simultaneously.

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

1. A sewing-machine feller comprising an arm or shank, as B, provided with a rigid transverse arm *c* having curved entrance-slots *c'* and *c²* and an upright or standard *c³*, the plate *d* attached to the standard *c³* and provided with the undercurved part *d'* and wing *d²*, forming the upper scroll, the throat-plate A provided with a spring *a²* beneath the said upper scroll and the plate *e* provided with the upwardly and over curled portions *e'*, *e²*, forming the lower scroll of the feller, and the spring-wing *f* extending beneath the said wing *d²* and over the said lower scroll.

2. A sewing-machine lap-seam feller consisting of a shank, as B, provided with a lower guiding-scroll and with a transverse arm, as *c*, having two curved entrance-slots, said arm having at its outer end an upwardly-projecting standard, an upper-scroll part attached to said standard and having a horizontally-extending wing, as *d²*, combined with a spring-wing, as *f*, interposed between the lower scroll and the said wing *d²*, and a throat-plate provided with a spring arranged beneath the said upper scroll and serving to hold the work up against the same.

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

GEORGE H. W. CURTIS.

Witnesses:
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HAROLD W. BROWN.