

(No Model.)

2 Sheets—Sheet 1.

J. AMADEN.

COMBINED RUFFLER AND SCALLOP PLAITER.

No. 260,633.

Patented July 4, 1882.

Fig. 1.

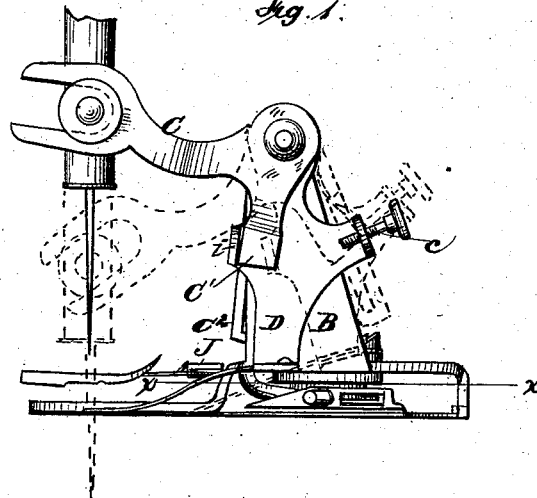


Fig. 2.

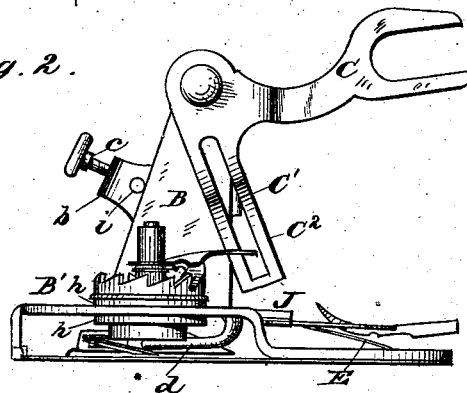
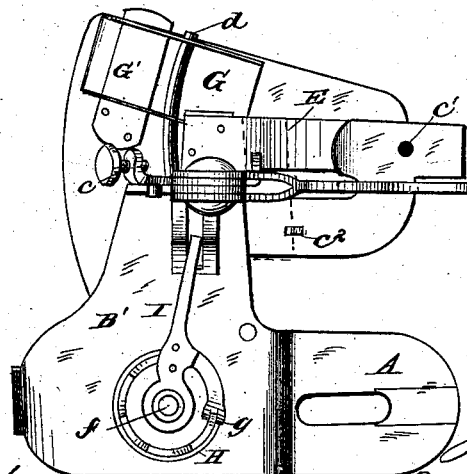


Fig. 3.



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(No Model.)

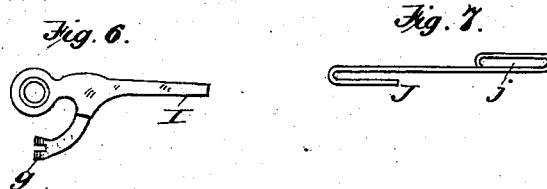
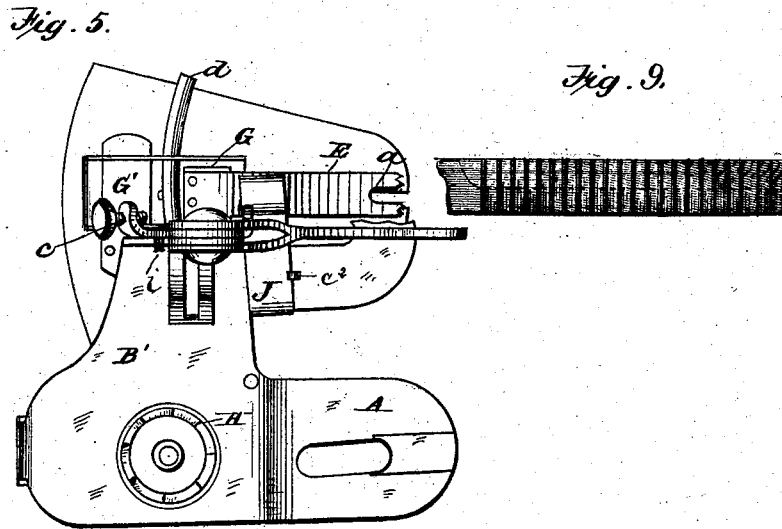
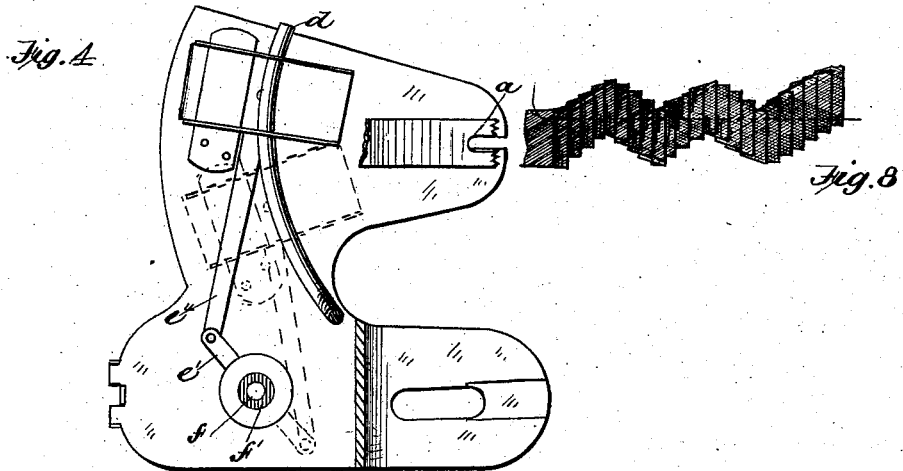
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JOHN AMADEN, OF BRYAN, OHIO, ASSIGNOR OF ONE-HALF TO SIDNEY M. GLEASON, OF SAME PLACE.

COMBINED RUFFLER AND SCALLOP-PLAITER.

SPECIFICATION forming part of Letters Patent No. 260,633, dated July 4, 1882.

Application filed April 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN AMADEN, a citizen of the United States, residing at Bryan, in the county of Williams and State of Ohio, have invented certain new and useful Improvements in Combined Ruffler, Scallop and Straight Plaiter for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings, and in which—

Figure 1 is a side view of my improved scalloping, plaiting, and ruffling attachment for sewing-machines. Fig. 2 is a similar view of the reverse side thereof. Fig. 3 is plan view of the same. Fig. 4 is a horizontal section on the line *xx* of Fig. 1. Fig. 5 is a plan view with the pawl which operates the ratchet of the scalloping mechanism removed, and Figs. 6 and 7 are detail views. Figs. 8 and 9 are views of the work produced.

This invention has relation to improvements in sewing-machine attachments for scalloping, plaiting, and ruffling purposes, which are also capable of laying simultaneously a piping or edging on the work; and it consists of the combination and arrangement of mechanism substantially as hereinafter more fully set forth and claimed.

As observed by reference to the accompanying drawings, A is a base-plate, adapted to be affixed to and adjusted upon a sewing-machine table in any known way—as, for instance, by a screw.

B is an upright or support fixed to a platform, B'.

C is a lever hung upon an axis passed through the upper end of the support or upright B, adapted to be connected to the needle-nut for operation, and having two arms, C¹ C², at its pivoted end, one extended down on each side of the upright B, the functions of which will be seen presently.

D is a swing or reciprocating bar hung upon the same axis or pivot as the lever C, and having attached to its lower end a spring-metal tongue or "blade," E, curved or formed so as to permit its forward serrated end to rest upon the base-plate A. This end of the blade or tongue E, reaching beyond and in line

with the needle, has a slot, *a*, for the passage through it of the needle, and to permit itself to have movement with relation to the needle in forming the plait or ruffle. The swing or reciprocating bar has a rearward extension, *b*, capable of receiving a regulating-screw, *c*, arranged and adapted to regulate the stroke of the arm C', which imparts motion to the scallop and plaiter guide, and of the swing-bar carrying the aforesaid tongue or blade, as will be readily understood from the drawings.

i is a projection extending laterally from the swinging bar, carrying the spring-tongue E, to limit the forward movement of the said bar.

From the platform B' a work-guide, *c'*, extends forward directly above and in line with the tongue E, having a needle-orifice through it.

G is the strip-guide, consisting of a plate having upturned flanges at its sides and its forward end disposed toward the plaiting tongue or blade. Across its rear end is secured a spring, G', to give the material or work passed under it through the guide suitable tension. It is arranged to reciprocate or travel back and forth upon a curved guide-rod, *d*, fastened to the base-plate A in a curvilinear path. The purpose of this is to effect the scalloping operation, as seen in Fig. 4. This motion is transmitted to the guide G by a pitman, *e'*, connected to the guide, an arm, *e'*, pivoted to the pitman, a shaft, *f*, having a disk, *f'*, to which said arm is connected, a ratchet, H, arranged on the upper side of the platform or bridge B' and secured to said shaft, a pawl, I, engaging said ratchet, and the arm of the lever C, having a slotted lateral extension to receive one end of said pawl. The pawl I is fitted to turn on the shaft *f* of the ratchet H, and has a tooth, *g*, to engage the teeth of the pawl.

It will be noticed that between the under side of the ratchet H and the platform or bridge B' is arranged a washer, *h*, of some highly-frictional material—as, for instance, sheep or chamois skin or nappy or woolen substance. This effects the stoppage of the ratchet the instant its pawl is released from each successive tooth, which enables the guide to work

with great precision, thus preventing the irregular feeding of the work to the needle and enabling the formation of the plaits of uniform size, producing beautiful and superior quality of work. To make straight or unscalloped plaits, the pawl I is removed and the guide G arranged in line with the needle, it thus having been deprived of motion. When it is desired to use the attachment as a ruffler the guide G is moved under the platform B', out of the way, and the stroke of the tongue or blade E regulated accordingly by manipulating the screw c.

J is a piping-guide capable of attachment to the arm of the work-guide c', and held in place by a spring-flange, c², of said guide-arm. This guide is arranged to project over the spring tongue or blade E to permit the laying of the piping upon the work.

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

1. The combination, with the spring-tongue E, swing-bar D, having the projection i and adjusting-screw c, and the mechanism to operate the reciprocating guide, of the lever C, adapted to be connected to the needle-nut, and having the arms C' C², one capable of

striking the projection i of swing-bar D and the other operating the pawl of the guide-operating mechanism, substantially as and for the purpose set forth. 30

2. The combination of the strip-guide with the curved guide rod or rail and mechanism to reciprocate it back and forth thereon, substantially as and for the purpose set forth. 35

3. The combination of the scalloping and plaiting guide with the curved guide-rail, the pitman, the shaft having a crank-arm and a ratchet, the pawl, and bifurcated lever, substantially as and for the purpose specified. 40

4. The combination of the base-plate having an upright, the swinging bar having the curved spring-tongue and the adjusting-screw, the lever, the strip-guide, the curved guide-rail, the pitman, the ratchet having an eccentric or crank arm, and the pawl, substantially as and for the purpose set forth. 45

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

JOHN AMADEN.

Witnesses:

GEORGE E. COY,
R. D. DOLE.