

(No Model.)

J. AMADEN.

GUIDE FOR MAKING SCALLOPED PLAITING.

No. 246,442.

Patented Aug. 30, 1881.

Fig. 1.

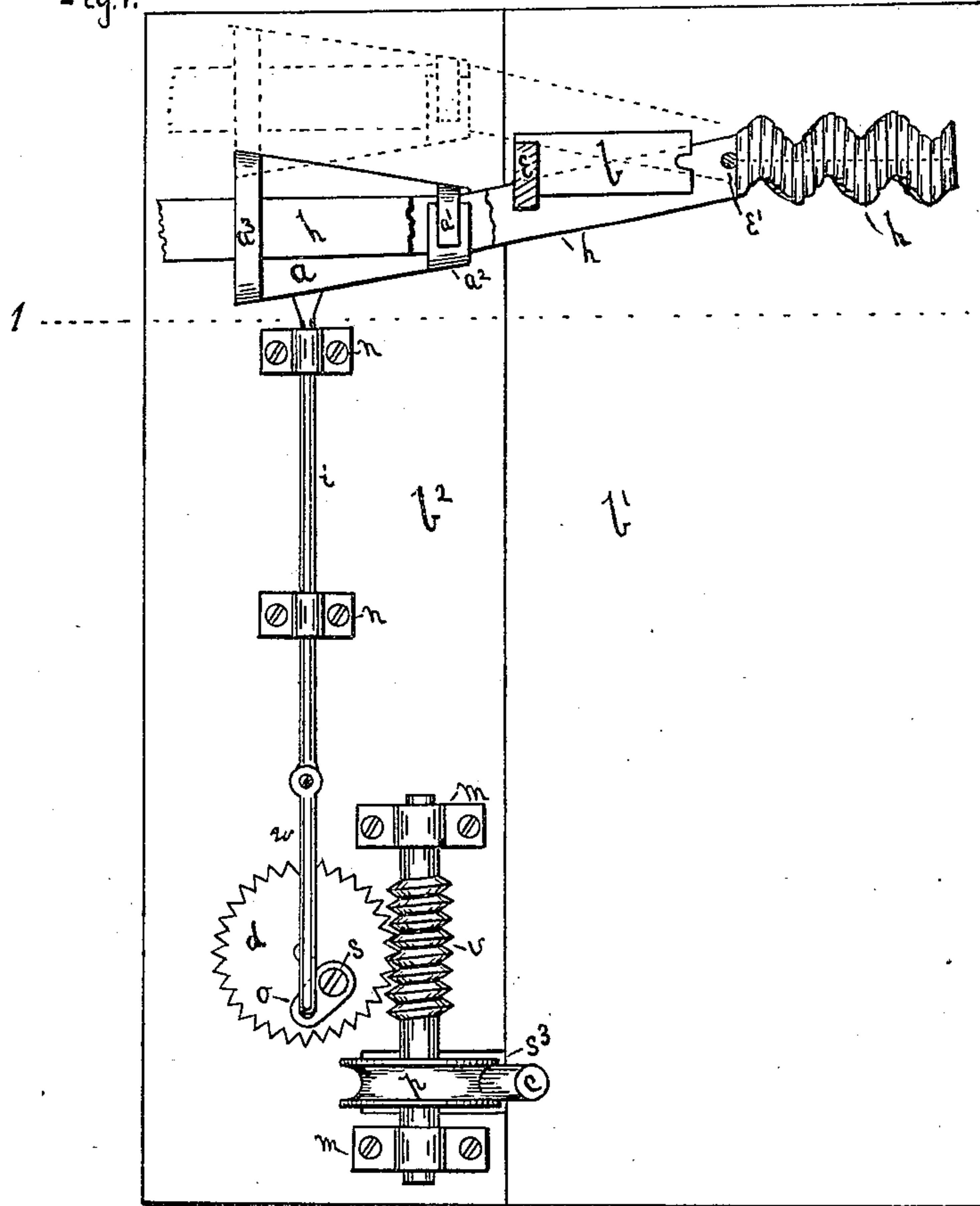
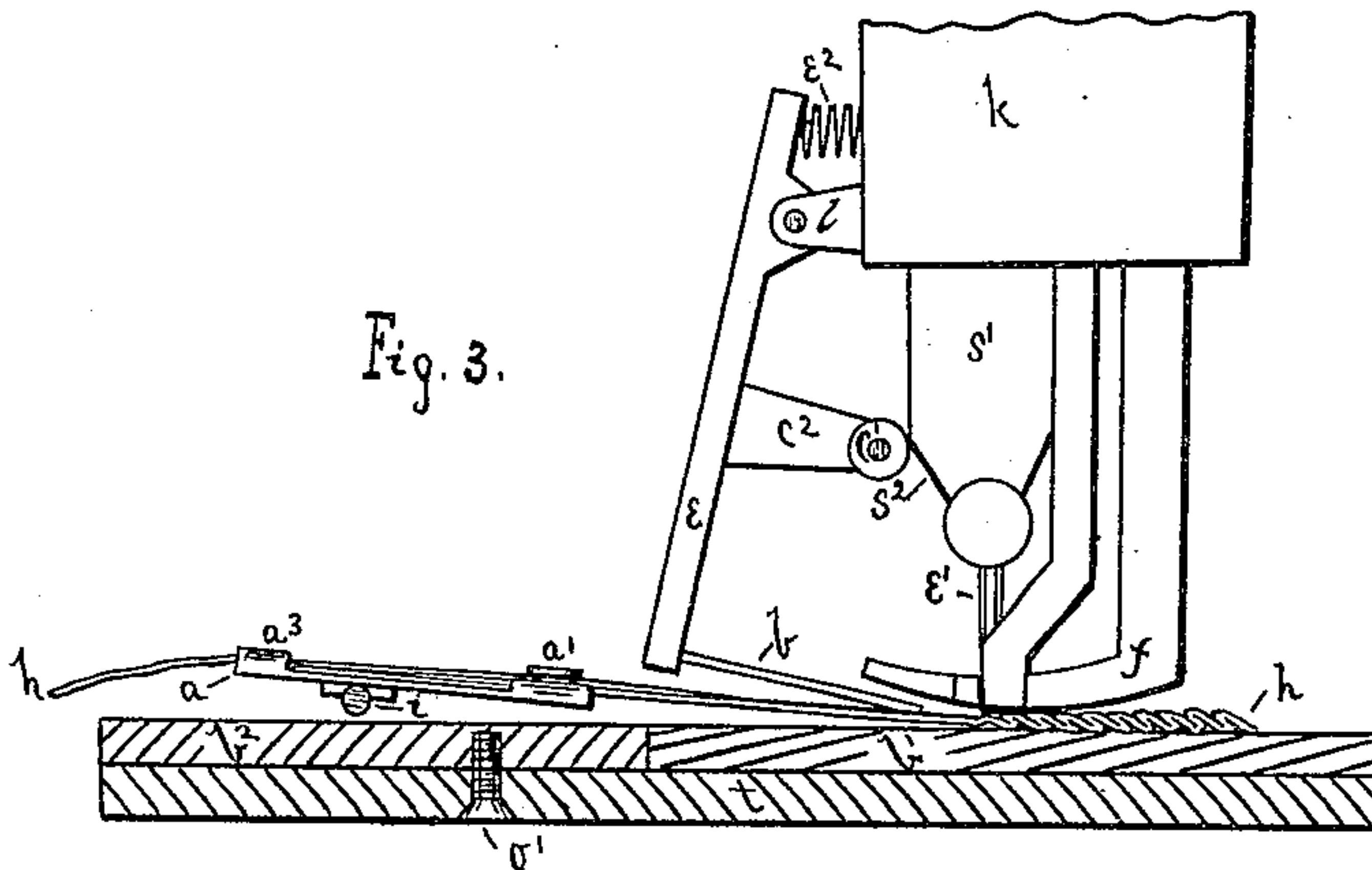


Fig. 2.



Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## GUIDE FOR MAKING SCALLOPED PLAITING.

SPECIFICATION forming part of Letters Patent No. 246,442, dated August 30, 1881.

Application filed November 4, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN AMADEN, of Bryan, Williams county, Ohio, have invented a new and useful Improvement in Automatic Guides for Making Scallop Plaiting, of which the following is a specification.

The nature and object of my invention is an automatic guide in front of the ruffler or plaiter of a sewing-machine, and having a reciprocating movement, by which it carries the strip to be plaited from side to side of the line of sewing, for the purpose of forming the scallops. This lateral movement of the strip, which is necessary in forming scallops, has heretofore been made by hand, whereby it has been found difficult or impracticable to make the scallops uniform. By the use of my automatic guide the lateral movements of the strip are equal in extent, thereby insuring uniform scallops.

In the drawings forming a part of this specification, Figure 1 is a plan representing the strip-guide and the mechanism by which it is operated attached to the table of a sewing-machine. Fig. 2 is a cross-section of the guide through its lips  $a'$   $a^2$  on an enlarged scale. Fig. 3 is a section at the dotted line 1 in Fig. 1, and represents an elevation of the guide and some of the principal parts of a sewing-machine.

The guide  $a$  is formed of sheet metal or other suitable material, and is provided with lips  $a'$   $a^2$  near its front end, and with cross-piece  $a^3$  near the other end. The folded strip of cloth,  $h$ , which is to be plaited passes through the slot or opening formed by cross-piece  $a^3$ , being slightly above guide  $a$ . The upper part of the folded strip  $h$  passes between lips  $a'$   $a^2$ , and the under part passes between lip  $a^2$  and guide  $a$ , and thereby the folds of the strip are kept in proper form to be plaited by the feeding-spring  $b$ . In Fig. 1 of the drawings a portion of the upper part of strip  $h$  is broken away at lips  $a'$   $a^2$ .

The feeding-spring  $b$  and feeder  $e$ , to which it is attached, are parts of an ordinary sewing-machine ruffler. Feeder  $e$  is pivoted to lug  $l$  on the side of the sewing-machine head  $k$ . It is provided with a roller,  $c'$ , pivoted to its arm  $c^2$ , and a spring,  $e^2$ , by means of which it is operated in the following manner: The needle-bar  $s'$ , Fig. 3, carrying needle  $e'$ , has an inclined side,  $s^2$ , which acts as a cam to force back feeder  $e$  when needle-bar  $s'$  descends.

When needle-bar  $s'$  is raised till cam  $s^2$  is above roller  $c'$  the action of spring  $e^2$  forces forward feeder  $e$ , and the end of feeding-spring  $b$ , which presses slightly on strip  $h$ , slides the strip forward and folds or plaits it under the foot of the presser-bar  $f$ . The position of the needle is shown at  $e'$ , Fig. 1, and beyond it the scalloped part of the strip. The position of guide  $a$  and strip  $h$  in dotted lines shows the extent of the lateral movement given to guide  $a$ . This lateral movement of guide  $a$  is imparted to it by means of rod  $i$ , pitman  $w$ , worm-wheel  $d$ , worm  $v$ , pulley  $p$ , and the drive-band  $c$  of the sewing-machine. Rod  $i$  is rigidly attached to the bottom of guide  $a$ , and slides in boxes  $n n$ . The pitman  $w$  is pivoted to rod  $i$  and arm  $o$ . Arm  $o$  is firmly fastened by screw  $s$  to wheel  $d$ , to prevent the arm from turning on the screw when the machine is in operation. When screw  $s$  has been loosened arm  $o$  may be turned on the screw for the purpose of adjusting the extent of the reciprocating movement of rod  $i$  and guide  $a$ . Worm-wheel  $d$  connects with and is rotated by worm  $v$ , which is rotated in boxes  $m m$  by means of pulley  $p$  and drive-band  $c$  of the sewing-machine. Worm-wheel  $d$  is pivoted to the bed-plate  $b^2$ , to which boxes  $n n m m$  are attached. Bed-plate  $b^2$  is attached to the top of table  $t$  at the side of bed-plate  $b'$  of the sewing-machine by screw  $o'$ , which enters bed-plate  $b^2$  from the under side of table  $t$ . The bed-plate  $b^2$  and table  $t$  are slotted at  $s^3$  to receive the lower part of pulley  $p$  and to allow the drive-band  $c$  to pass through.

When the sewing-machine is not used for making scalloped plaiting the automatic guide and its bed-plate  $b^2$  may be removed on withdrawing screw  $o'$  from the bed-plate.

I am aware that the mechanical devices herein described by which guide  $a$  is operated are not new; and the main feature of my invention is not in any particular form of the strip-guide  $a$ .

I claim as my invention—

An automatic reciprocating strip-guide connected with or operated by sewing-machine mechanism, in combination with the ruffler of a sewing-machine, for the purpose of forming scalloped plaiting, substantially as described.

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Witnesses:

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