No. 645,539. Patented Mar. 20, 1900.

E. B. ALLEN.

GUIDING AND PILE CONTROLLING DEVICE FOR CARPET SEWING MACHINES.

(Application filed June 26, 1899.)

(No Model.)

Fig. 2.

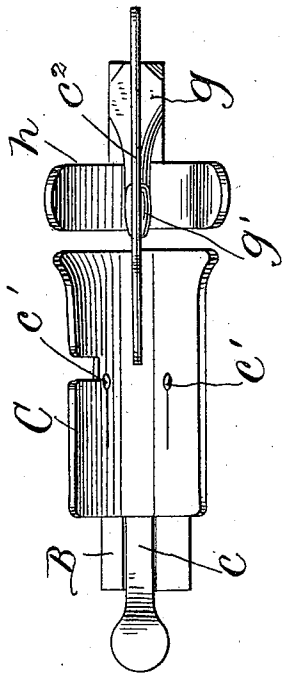


Fig. 4.

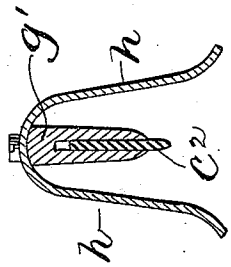


Fig. 3.

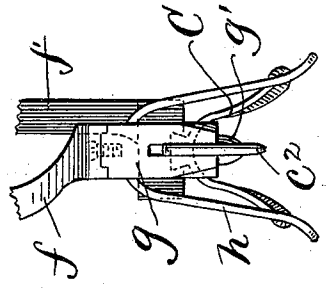
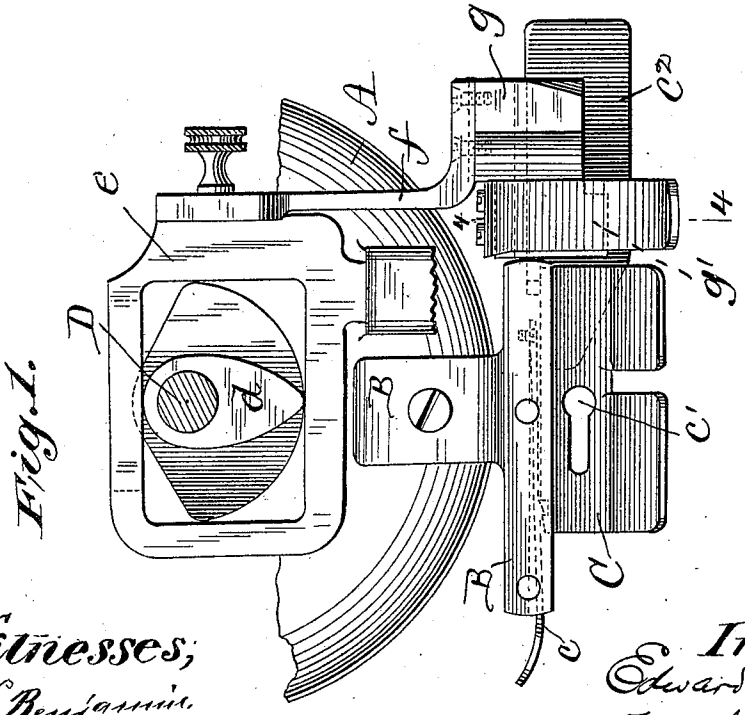


Fig. 1.



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UNITED STATES PATENT OFFICE.

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GUIDING AND PILE-CONTROLLING DEVICE FOR CARPET-SEWING MACHINES.

SPECIFICATION forming part of Letters Patent No. 645,539, dated March 20, 1900.

Application filed June 26, 1899. Serial No. 721,963. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. ALLEN, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Guiding and Pile-Controlling Devices for Carpet-Sewing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a guiding and pile-controlling device intended for use in connection with the carpet-sewing machine shown by my Patent No. 524,996, granted August 28, 1894, and which is an improvement upon the device shown by my Patent No. 524,994, also granted August 28, 1894. In the present improvement the "piler" or pile-deflector, which reciprocates at right angles to the carpet edges being joined and which turns the pile of the fabrics to be joined inward at right angles, or approximately so, to the line of the seam, has attached thereto so as to reciprocate therewith a saddle-piece, which straddles the part of the piler nearest to the needle of the machine. This saddle-piece serves as a resistance to hold the carpet edges from being forced apart or outward by the tapering or wedge-shaped portion of the piler as the latter enters between the carpet edges, and thus enables the piler more effectively to turn the pile inward at right angles to the line of the seam than is the case with the piler shown by my said Patent No. 524,994, which reciprocates astride the divider, and outside of which piler, in the plane of reciprocation of the latter, there were no means provided to hold the carpet edges from being forced outward or away from the separator at this point when the piler descended between said carpet edges.

In the use of the improved pile-deflecting device the pile is more effectively turned inward (so as to be out of the way of the seam by which the carpet edges are joined) than it was with the old construction.

In the accompanying drawings, Figure 1 shows a portion of the carpet-sewing machine fully shown and described in my Patent No. 524,996 with my present improvements attached thereto. Fig. 2 is a bottom view of the new piler and the guide. Fig. 3 is an end view of the same looking from the right of Figs. 1 and 2, and Fig. 4 is a detail section of the piler and its saddle-piece on line 4 4, Fig. 1.

A denotes a portion of the frame of the machine, to which is attached a bracket B, which sustains the saddle-guide C, removably secured to said bracket by a spring-catch *c*. The saddle-guide is provided in front of the transverse needle-opening *c'* with a centrally-placed dividing-plate or divider c^2.

D denotes the driving-shaft of the machine, provided with a cam *d*, which imparts vertical reciprocating movements to a yoke *e*, which actuates the spreader or loop-holder, coöperating with the needle, as described in my said Patent No. 524,996. Attached to the yoke *e* is a bar or bracket *f*, to the lower end of which is secured the piler or pile-deflector *g g'*, which is slotted centrally so as to reciprocate astride the divider or dividing-plate c^2. The forward or outer part *g* of the piler is made somewhat thick and blunt, while the rear or inner part thereof is formed comparatively thin and is wedge-shaped, so as to taper downward, the said part *g'* preferably extending down below the part *g*, as denoted by dotted lines in Fig. 1, so as to push the pile in farther from the edges of the fabric than is done by the said part *g*. Astride the part *g'* of the piler and attached thereto so as to reciprocate therewith is a saddle-piece or saddle *h*, which embraces the portions of the carpet edges between which the said part *g'* of the piler enters, and by holding the said edges from being separated by the wedge-shaped piler it enables the said piler to more effectively tuck or turn in the pile than would be done without it, so that the pile will be left nearly or quite at right angles to the line of the seam. The reciprocating saddle *h* moving up and down with the piler does not serve as a guide to even the edges of the fabric and bring them in proper relation to the needle of the machine, as the said saddle does not in its reciprocating movements descend low enough so that its top portion reaches the edges of the fabrics, the fabric edges being evened and guided with relation to the needle of the machine by the guide C,

as heretofore. The dividing-plate or divider c^2, astride which the piler reciprocates, serves to hold the pile of the fabric which is pressed against said divider by the reciprocating saddle h and by the guide C from springing back after it has been tucked in or deflected by the piler, the said dividing-plate or divider in this respect performing the same function as heretofore and as described in my Patent No. 524,994.

From the foregoing it will be understood that the reciprocating saddle h, arranged astride the piler and moving up and down therewith, serves in coöperation with the said piler and with the divider and guide to turn in or deflect the pile in an efficient manner and to hold the pile thus turned in or deflected until the fabric edges have been joined by the stitch-forming mechanism of the machine, the improvement enabling this result to be effected much more satisfactorily than was possible with the devices heretofore provided for this purpose.

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

1. A pile-controlling apparatus for carpet-sewing machines consisting of the combination with a stationary saddle-guide for the carpet edges, and which guide is provided with a centrally-placed dividing-plate or divider, of a reciprocating piler working astride the said dividing-plate or divider, and a reciprocating saddle astride said piler and movable therewith.

2. A pile-controlling apparatus for carpet-sewing machines consisting of the combination with the stationary saddle-guide C provided with a centrally-placed dividing-plate or divider, of a reciprocating piler comprising the thicker and shorter forward part g and the thinner and longer rearward part g', and the saddle h astride the said part g' of the piler and attached thereto so as to reciprocate therewith.

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

EDWARD B. ALLEN.

Witnesses:
HENRY J. MILLER,
HAROLD W. BROWN.