

(No Model.)

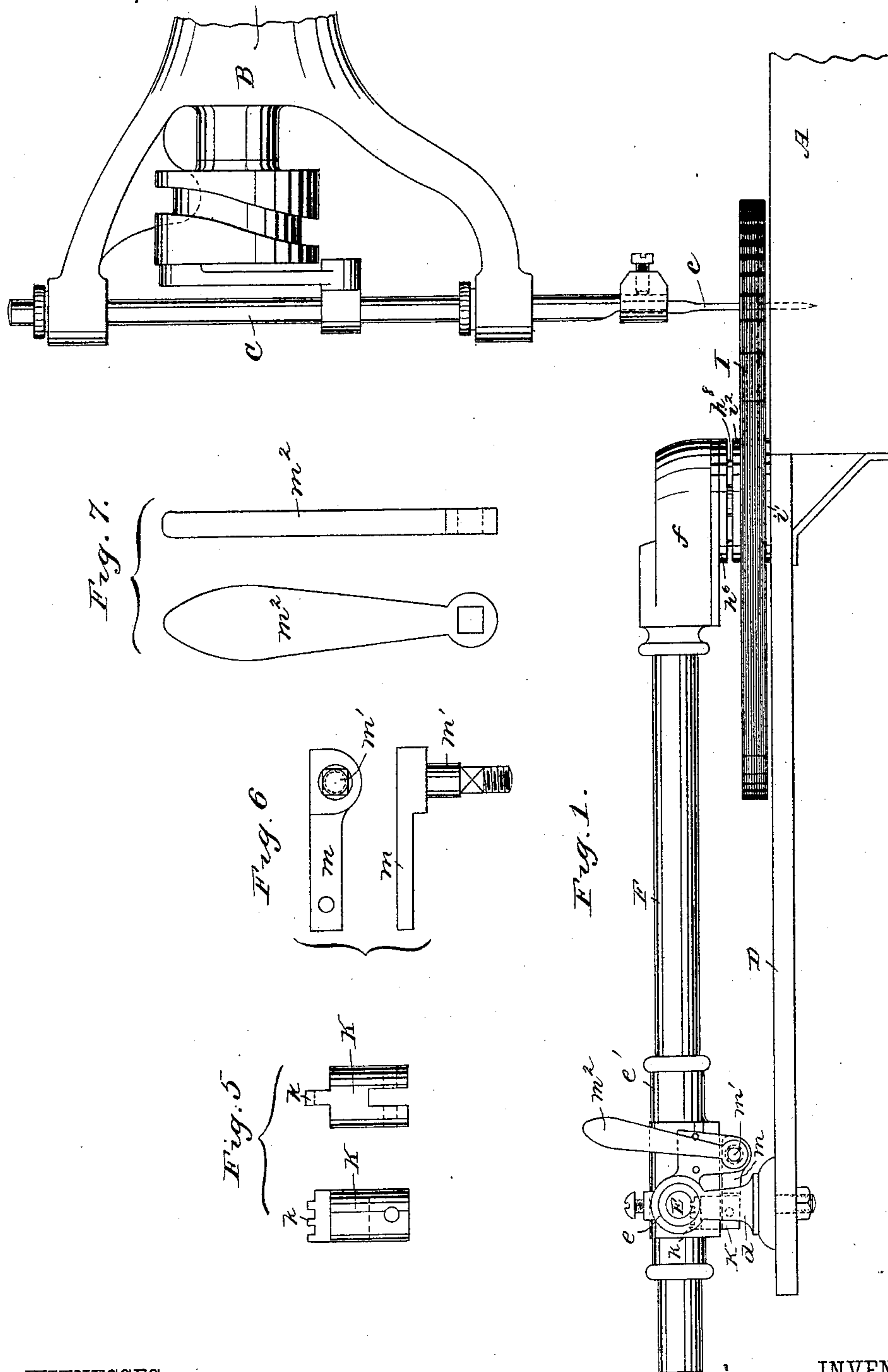
2 Sheets—Sheet 1.

F. W. MALLETT.

PAD STITCHING ATTACHMENT FOR SEWING MACHINES.

No. 390,685.

Patented Oct. 9, 1888.



WITNESSES:

H. I. Curry.

E. D. Smith

INVENTOR.

F. W. Mallett.

BY

Curry & Co.

ATTORNEY.

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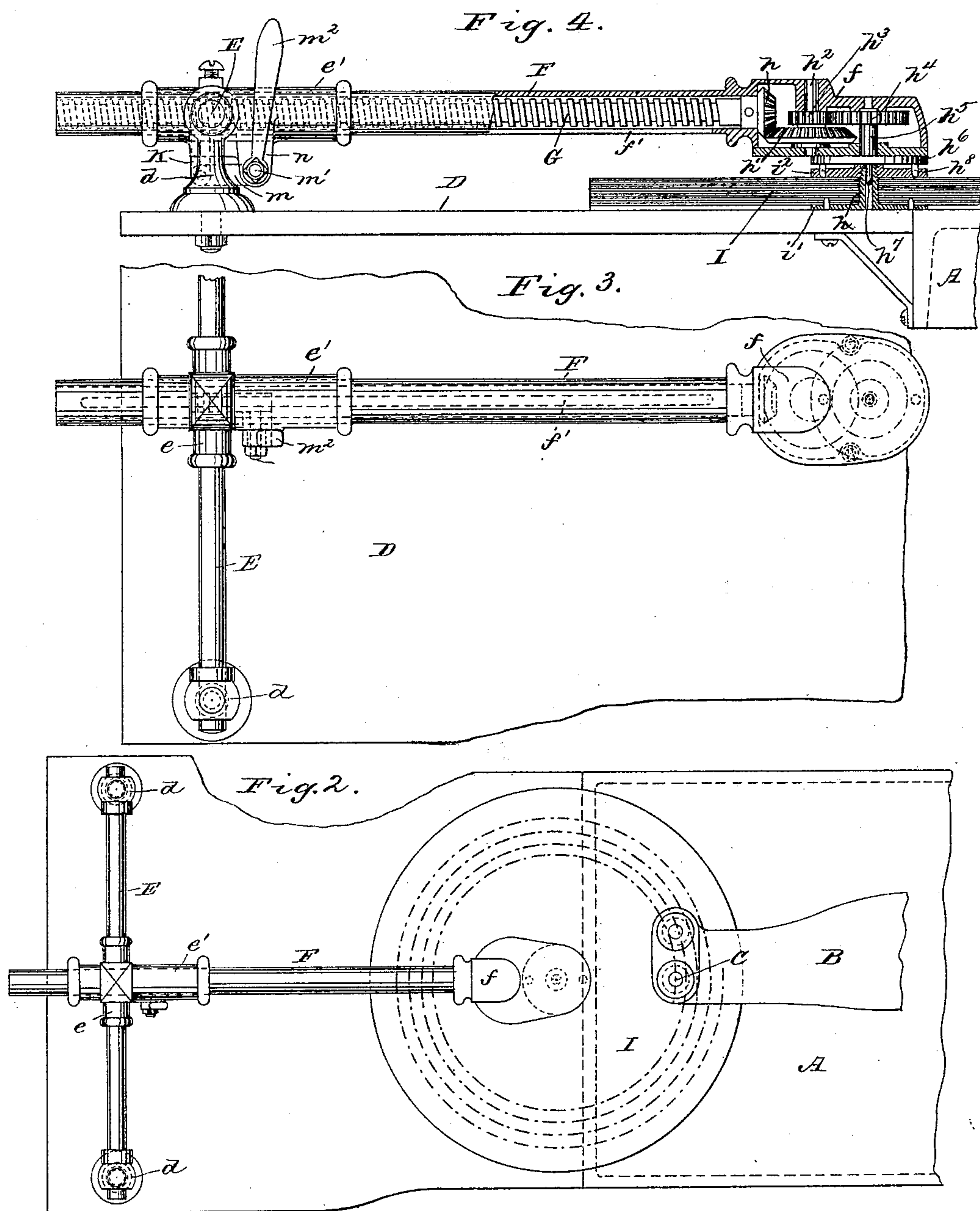
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BY

BY *Kenneth Calver*  
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# UNITED STATES PATENT OFFICE.

FRANCIS W. MALLETT, OF NEW YORK, N. Y., ASSIGNOR TO THE SINGER  
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## PAD-STITCHING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 390,685, dated October 9, 1888.

Application filed May 26, 1888. Serial No. 275,209. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS W. MALLETT, 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 Pad-Stitching Attachments for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of my invention is to provide a convenient sewing-machine attachment whereby circumvolved seams may be formed in circular pads of cloth or similar material. To this end I mount on a suitable standard or support attached to a base-plate a sliding tube within which is a screw-shaft having at its forward end a bevel-gear extending within a housing at the forward end of said tube, said bevel-gear being connected by a train of gear-  
15 ing with a disk arranged beneath said housing and adapted to be connected with two rotary disks, between which the plies or thicknesses of material to form the pads are to be clamped. A toothed dog or locking device, which may be engaged with the screw-shaft, will cause a slow longitudinal movement of the said shaft and the sliding tube within which it is mounted, and thus of the parts connected with said tube, when the pad is rotated by the feed of the sewing-machine, thereby moving the said pad slowly laterally or at right angles to the direction of movement of the feed and causing a scroll-like or convoluted seam to be formed in the pad. When the stitching is completed, the sliding tube and connected parts may be turned up on the pivotal support of said tube to be clear of the pad-holding disks, to permit the pad to be removed. The locking device is then disengaged from the screw-shaft, permitting the sliding tube to be adjusted to its first position preparatory to stitching another pad, and the said locking device will then be re-engaged with said shaft for the new operation.

45 In the drawings, Figure 1 is a side elevation of my attachment, showing, also, a portion of a sewing-machine with which it is connected. Fig. 2 is a plan view of the same. Fig. 3 is a plan view of the attachment, and Fig. 4 is a sectional elevation thereof. Figs. 5, 6, and 7 are detail views, to be referred to.

A denotes the work-plate, B the bracket-arm, C the needle-bar, and *c* the needle, of an ordinary sewing-machine.

D is the base plate of the attachment, to be secured to the sewing-machine work-plate in any suitable manner, or it may be an extension of said work-plate. The base-plate D is provided with standards *d*, on which is pivotally supported a shaft or bar, E, having at its center the hollow cross-piece *e e'*. The part *e'* of the said cross-piece receives a sliding tube, F, having at its forward end the housing *f*.

G is a screw-shaft mounted in the said sliding tube and provided at its forward end, within said housing, with the bevel-gear *h*, meshing with the bevel gear *h'* on the shaft *h<sup>2</sup>*, said shaft *h<sup>2</sup>* carrying also the gear *h<sup>3</sup>*, meshing with the gear *h<sup>4</sup>* on the shaft *h<sup>5</sup>*, having the disk *h<sup>6</sup>* and the centering-pin *h<sup>7</sup>*.

I denotes a pad consisting of a number of plies of cloth or other material which are to be stitched together by a convoluted seam. Said pad is held between the disks *i'* and *i<sup>2</sup>*, the disk *i'* being provided with a sleeve, *i*, on which the disk *i<sup>2</sup>* screws to clamp the pad, the latter having a central hole through which said sleeve passes. The disk *i<sup>2</sup>* is engaged by pins *h<sup>8</sup>* on the disk *h<sup>6</sup>*, the centering-pin *h<sup>7</sup>* entering the sleeve *i*.

The tube F is provided on its under side with a longitudinal slot, *f'*, through which the toothed portion *k* of the dog or locking device K (shown in detail, Fig. 5) can pass to engage the screw-shaft G. The said dog or locking device is attached to an arm, *m*, having rigid stud *m'*, Fig. 6, which has a bearing in a support or bracket, *n*, attached or forming part of the cross-piece *e e'*, the said stud being provided with an operating-handle, *m<sup>2</sup>*. (Shown in detail in Fig. 7.) When the parts are in the operative position shown in the drawings, the teeth of the dog or locking device will be in engagement with the screw-shaft G, so that when the latter is rotated the stationary dog will cause a longitudinal movement thereof and of the sliding tube and connected parts; but if the handle *m<sup>2</sup>* be moved to the left the said dog will be depressed out of engagement with said screw-shaft, thus leaving the tube F free to be slid lengthwise



through the sleeve or part *e'* of the hollow cross-piece.

The operation is as follows: The plies of material are secured between the disks *i'* and *i''* and placed in operative position, as shown in Figs. 1, 2, and 4. The machine being started, the feed thereof, acting on the pad *I*, will rotate said pad and thus turn the screw-shaft which is connected therewith, as shown in Fig. 4, thereby causing said pad to be moved slowly laterally to the right as it is rotated, so as to form a convoluted or scroll-like seam, as indicated by the dotted circular lines in Fig. 2. When the stitching of the pad has been completed, the handle *m*<sup>2</sup> is moved to the left, disengaging the locking-dog from the screw-shaft, and the latter is then turned up on its pivotal support to disengage the pin *h'* from the sleeve of the pad-holding disks and slid to the left preparatory to repeating the stitching operation with another pad.

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

1. A sewing-machine attachment consisting of the combination, with a base-plate and pad-clamping disks, of a sliding tube pivotally supported on said base-plate, a screw-shaft in said tube, a train of gearing connecting said screw-shaft with said disks, and a locking device to engage said screw-shaft and cause it to move longitudinally when rotated.

2. A sewing-machine attachment consisting of the combination, with a base provided with

standards, of a shaft pivotally supported by said standards and provided with a hollow cross-piece, a tube fitted to slide through one portion of said cross-piece, a screw-shaft in said tube, pad-clamping disks, a train of gearing connecting said screw-shaft with said disks, and a locking device supported by said cross-piece and engaging said screw-shaft to cause the latter and the parts connected therewith to move longitudinally when said shaft is rotated.

3. A sewing-machine attachment for scroll-stitching pads by a convoluted seam, the same consisting of the combination, with the base-plate *D*, having the standards *d*, of the bar or shaft *E*, pivotally supported on said standards and having the hollow cross-piece *e e'*, the tube *F*, fitted to slide through the said cross-piece and provided with the housing *f*, the screw-shaft *G* in said tube, the connected pad-clamping disks *i' i''*, the disk *h*<sup>6</sup>, having a connection with said pad-clamping disks, a shaft, *h*<sup>5</sup>, by which said disk *h*<sup>6</sup> is carried, a train of gearing connecting said shaft *h*<sup>5</sup> with the said screw-shaft, the toothed locking-dog *K*, the arm *m*, having the operating-handle *m*<sup>2</sup>, and the bracket to which said arm is pivoted.

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

FRANCIS W. MALLETT.

Witnesses:

L. B. MILLER,  
J. G. GREENE.