

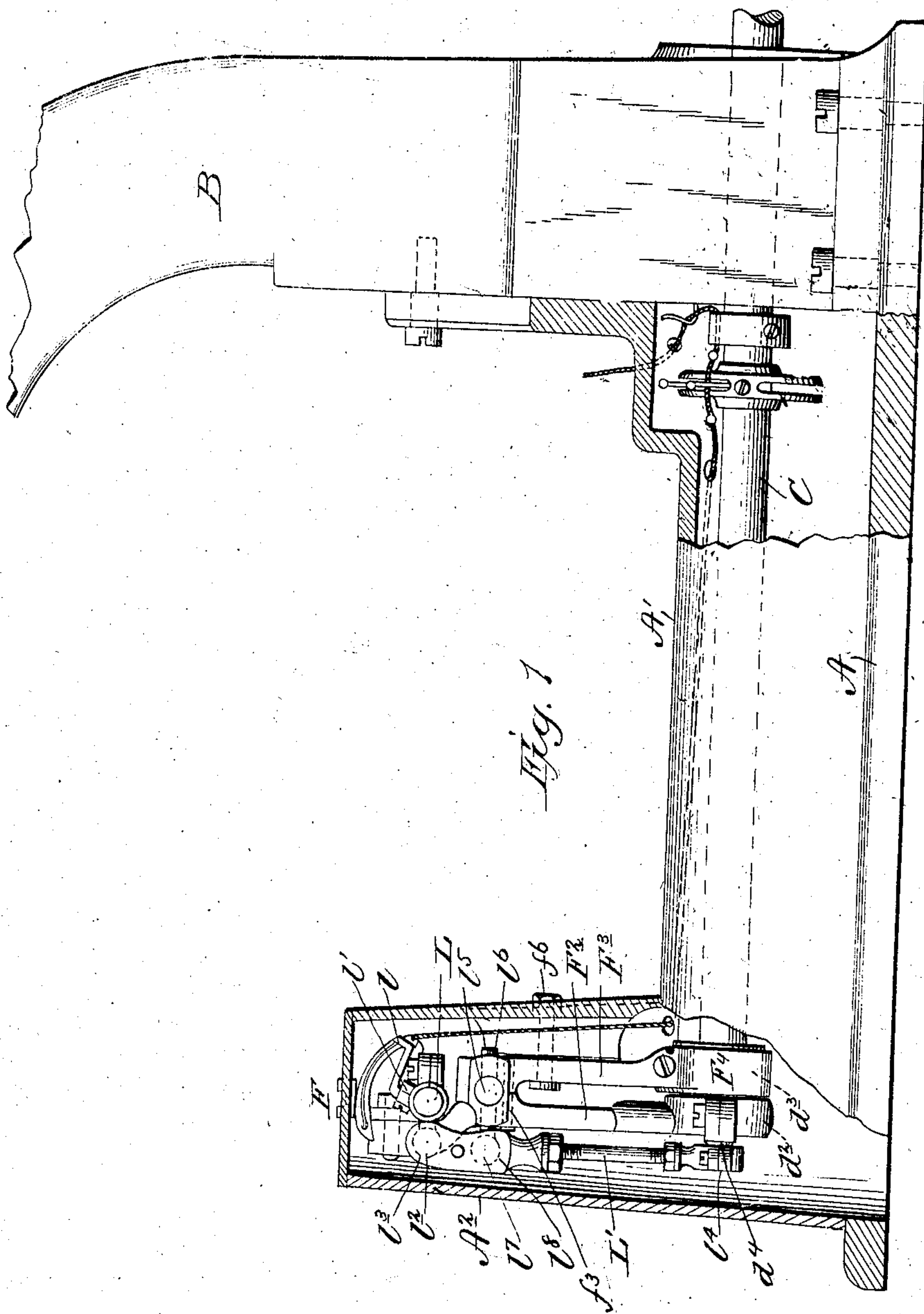
No. 839,078.

PATENTED DEC. 18, 1906.

L. ONDERDONK.
SEWING MACHINE.

APPLICATION FILED MAY 21, 1901. RENEWED JULY 12, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

Frank L. Ourand
Albert Popkins

INVENTOR

Laming Onderdonk

BY

Sturtevant & Greedy
ATTORNEYS

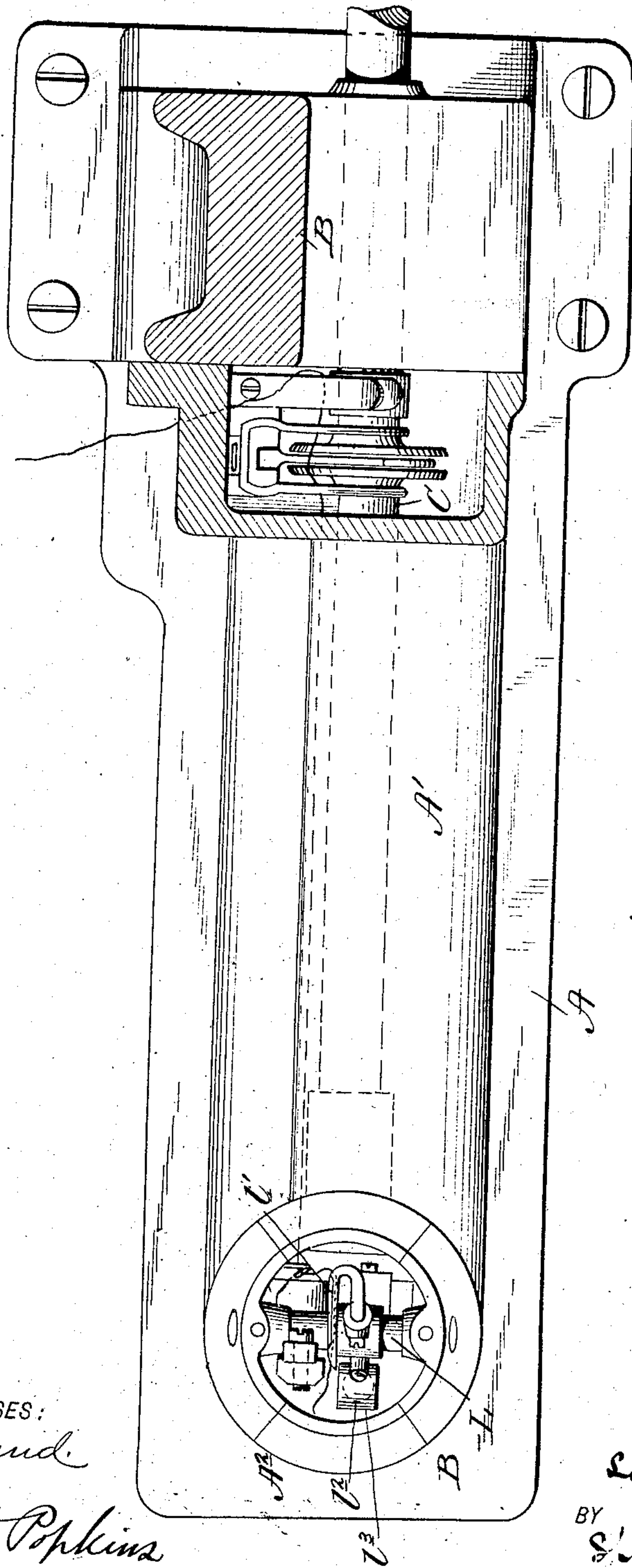
No. 839,078.

PATENTED DEC. 18, 1906.

L. ONDERDONK.
SEWING MACHINE.

APPLICATION FILED MAY 21, 1901. RENEWED JULY 12, 1906.

3 SHEETS—SHEET 2.



WITNESSES:
F. L. Ourand.
Albert Pophins

INVENTOR
Lauring Onderdonk
BY
S. J. Luntz & Co.
ATTORNEYS

No. 839,078.

PATENTED DEC. 18, 1906.

L. ONDERDONK.
SEWING MACHINE.

APPLICATION FILED MAY 21, 1901. RENEWED JULY 12, 1906.

3 SHEETS—SHEET 3.

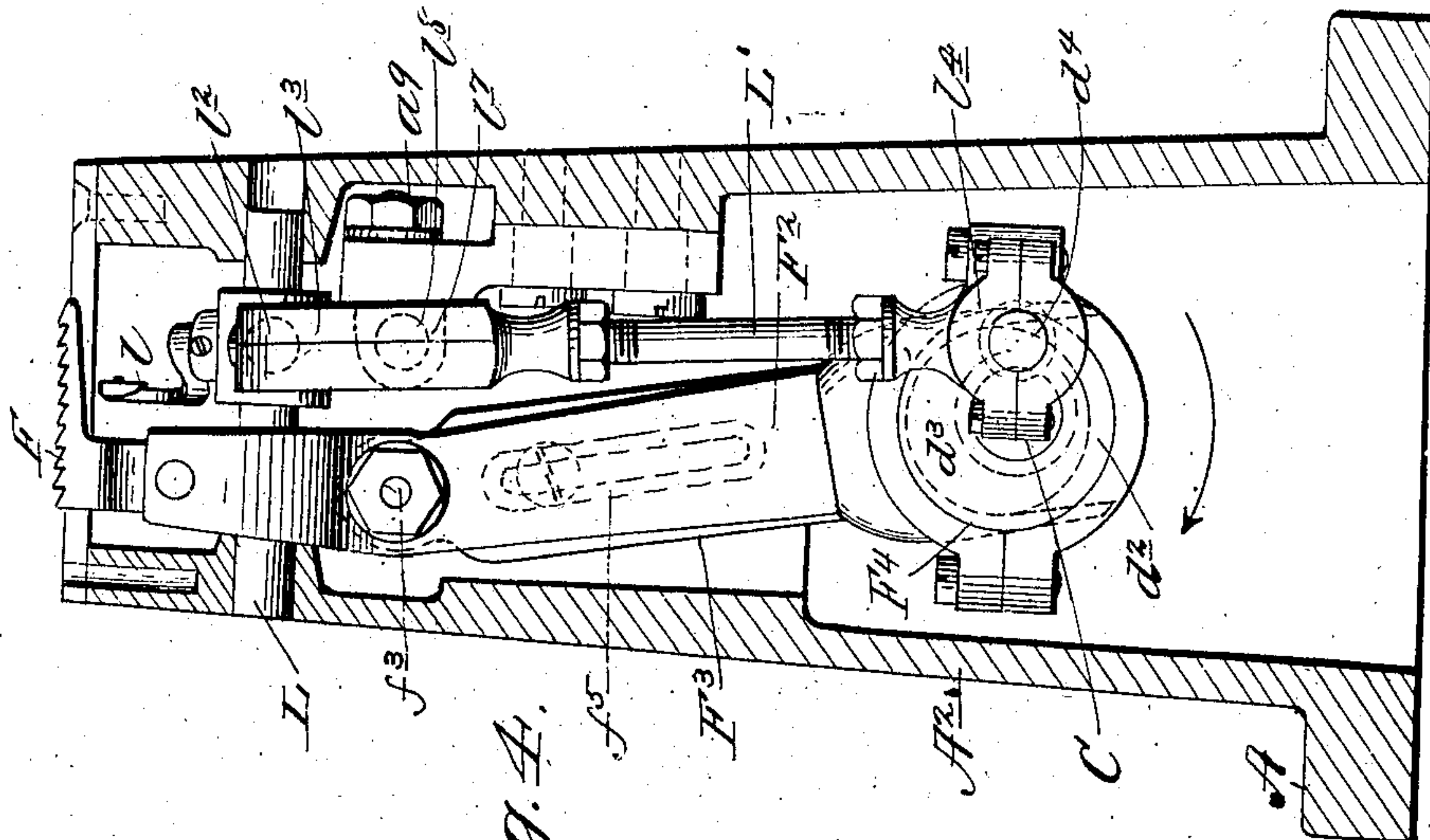


Fig. 4.

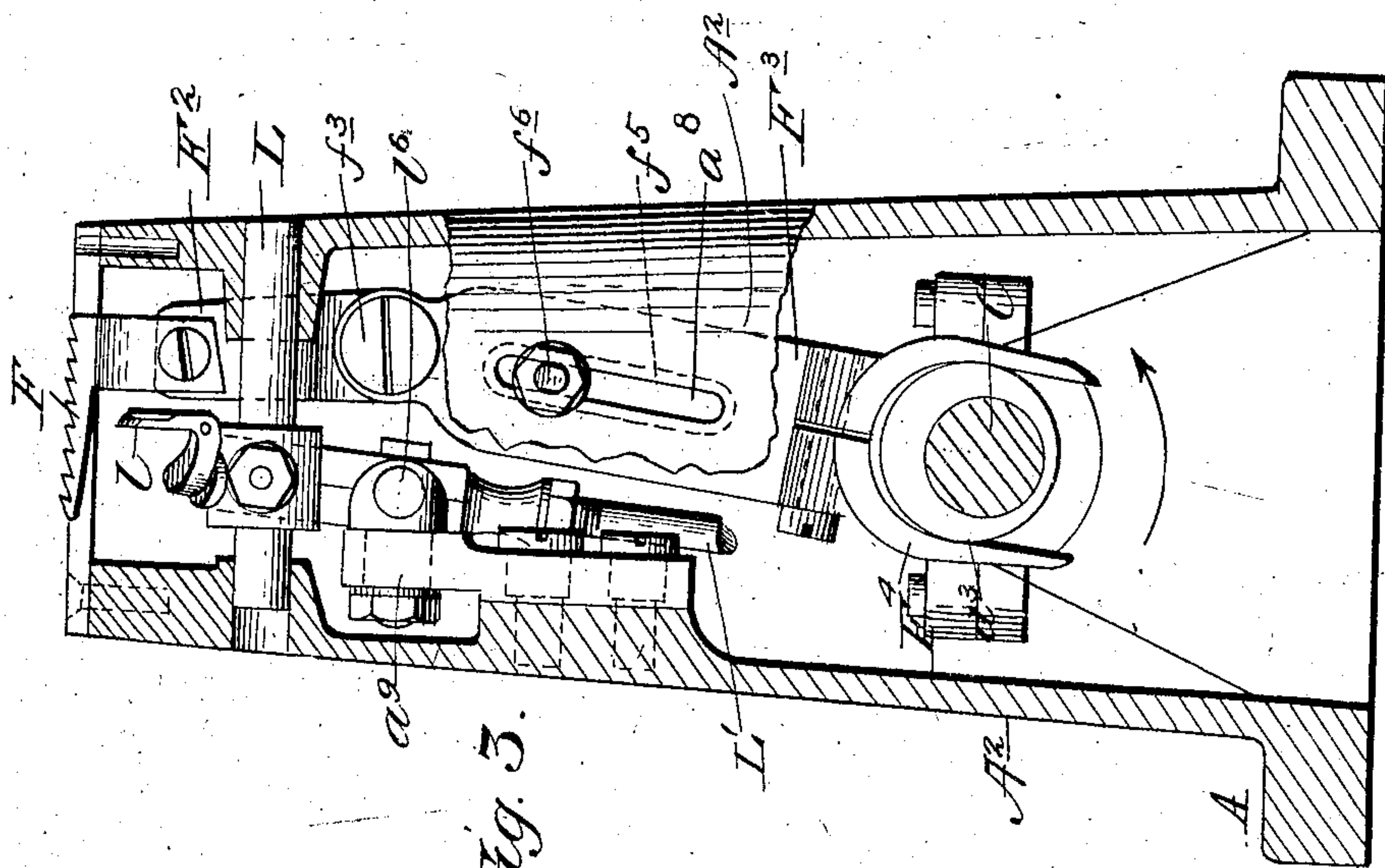


Fig. 5.

Witnesses
F. L. Ormand.
Albert Popkins.

by
Lawrence Onderdonk
Sturtevant & Greely
Attorneys

UNITED STATES PATENT OFFICE.

LANSING ONDERDONK, OF NEW YORK, N. Y., ASSIGNOR TO UNION SPECIAL SEWING MACHINE CO., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SEWING-MACHINE.

No. 839,078

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed May 21, 1901. Renewed July 12, 1906. Serial No. 325,883.

To all whom it may concern:

Be it known that I, LANSING ONDERDONK, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in sewing-machines, and particularly to what may be called a "post" machine, in which the work-plate is a vertically-arranged post containing the feeding and looper mechanisms and upon the upper end of which post the cloth-plate is supported.

The present invention is an embodiment of the apparatus shown, described, and claimed in an application filed by me of even date herewith, Serial No. 61,272, the features herein claimed being such as render the same of value for post machines *per se*.

Said invention therefore consists in the various matters hereinafter described, and referred to in the appended claims.

In the accompanying drawings, which illustrate the invention, Figure 1 is a side elevation of a sewing-machine embodying my improved features, part of the same being broken away and part being shown in section. Fig. 2 is a plan view of the same, partly in section. Figs. 3 and 4 are respectively right and left hand side elevations, partly in section, of the post and operating parts for the looper and feeding mechanisms.

In the drawings, A represents the base or standard, from which rises the gooseneck B, and A' is the case member, which incloses the greater portion of the driving-shaft C, to which power is applied in the usual manner. At the left-hand end of the case member A' rises the hollow post or work-support A², supporting on its upper end the cloth-plate and within which the feeding and looper mechanisms and their operative connections to the driving-shaft are contained.

The horizontal driving-shaft C is mounted in bearings in the standard A and case member A' and at its left-hand end within the lower portion of the post A² is provided with two eccentrics d² d³, the former carrying a wrist-pin d⁴ in the form of a ball.

The feed-dog F is secured in the upper end

of the main feed-operating lever F², the lower end of said lever being strapped to the larger eccentric d² on the driving-shaft C, thus giving the up-and-down motion to the feed-dog. This lever F² is further acted upon by the auxiliary lever F³, forked at its lower end f⁴ to straddle the smaller eccentric d³ of driving-shaft C. This lever is pivoted at its upper end to the right side of lever F² by a pivot-screw f³. Said lever F³ is further provided between its ends with a longitudinal fulcrum-slot f⁵, through which passes the enlarged rounded portion of the fulcrum-bolt f⁶, having a flattened threaded end, as shown in Fig. 3, mounted adjustably in an inclined vertically-disposed slot a⁸ in the post A². By adjusting this bolt f⁶ the throw of the feed-dog may be lengthened or shortened to vary the stitch.

It will be seen that the main lever effects the raising and lowering of the feed-dog and also raises the lever F³, the latter sliding on the bolt f⁶, and that in the further rotation of the eccentrics d² d³ the auxiliary feed-lever F³ will be rocked on its axis f⁶, so as to rock the main lever and impart the forward and backward movements to the feed-dog.

L is a short shaft mounted to slide and rock in bearings formed on opposite sides of the vertical post A² and provided with a socket or sockets for the reception of the shanks of a looper or loopers l. These sockets may be formed in separate collars or clamps, but are preferably formed in a clamp l', embracing the looper-shaft, which clamp is provided with a ball l², engaged by a socket l³ on the upper end of the looper-operating lever L', the lower end of the lever L' having a socket l⁴ to receive the ball on the wrist-pin d⁴, carried by eccentric d².

To impart the necessary sliding or needle-avoiding movements to the looper-supporting shaft, I provide a transverse vertically-rocking tubular bearing L², pivoted at l⁵ to a bracket a⁹ on the inside of the post A², and in this bearing slides the shank l⁶ of the ball l⁷, engaged by the socket l⁸ on the lever L', just below socket l³.

It will be seen that as the lower end of lever L' is carried around by the wrist-pin d⁴ its upper end will rock the looper-shaft and also oscillate on the ball l⁷, and so reciprocate the looper-shaft to give the needle-avoiding movements to the looper.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A sewing-machine, comprising a casing member, and a hollow work-supporting post projecting vertically therefrom, a driving-shaft within said casing member and projecting into said hollow post, having two cams or eccentrics and a wrist-pin therein, a feed-dog, a vertically-arranged feed-operating lever supporting said feed-dog on its upper end and at its lower end operatively engaging one of the cams or eccentrics, an auxiliary lever operatively connected with the other cam or eccentric, a looper mechanism with connections between the same and the wrist-pin on the driving-shaft, said feeding and looper mechanism being arranged within the hollow vertical post; substantially as described.

2. A sewing-machine, comprising a casing member, and a hollow work-supporting post, projecting vertically therefrom, a driving-shaft within said casing member, and projecting into said hollow post, and having two cams or eccentrics and a wrist-pin, a feeding mechanism including a feed-dog supported at the upper end of the work-supporting post and connections between the feed-dog and the cams or eccentrics, a sliding and rocking looper-support, a looper carried thereby and a looper-operating lever pivotally connected with the looper-support and having also pivotal connection with said vertical post, and operatively connected at its lower end with the wrist-pin on the driving-shaft, said feeding and looper mechanism being located within the hollow vertical post; substantially as described.

3. A sewing-machine, comprising a casing member and a hollow work-supporting post projecting vertically therefrom, a driving-shaft within said casing member projecting into said hollow post, and having on its end two cams or eccentrics and a wrist-pin, a feeding mechanism operatively connected with both the cams or eccentrics and including a feed-dog located in the upper end of said work-support post, and a looper mechanism operatively connected with the wrist-pin and a looper located in the upper end of said post operated thereby, said feeding and looper mechanism being contained within the hol-

low work-supporting post; substantially as described.

4. A sewing-machine comprising a casing or framework having a horizontal and a vertical member, and a shaft journaled in the horizontal member, and provided at the base of the vertical member with two cams or eccentrics and a wrist-pin, of a main feed-operating lever connected at its lower end to one of said cams or eccentrics, a feed-dog located in the upper end of said vertical member and connected with said feed-operating lever, an auxiliary lever slidingly pivoted between its ends to vertical base member, pivoted at its upper end to the main feed-operating lever, and embracing with its lower forked or slotted end the other of said cams or eccentrics, a rocking and sliding looper-shaft at the upper end of the vertical case member, and a looper-operating lever connected at its lower end to the said wrist-pin, pivotally connected at its upper end to the said looper-shaft, and having a pivoted and sliding connection below the looper-shaft with said vertical case member, said feeding and looping mechanism being entirely contained within the vertical member; substantially as described.

5. A sewing-machine, comprising a casing member, and a hollow work-supporting post, projecting vertically therefrom, a driving-shaft within said casing member, and projecting into said hollow post, a feeding mechanism including a feed-dog located at the upper end of the work-supporting post and with connections between the feeding mechanism and the driving-shaft, a sliding and rocking looper-support, and a looper-operating lever pivotally connected with the looper-support and having also pivotal connection with said vertical post, and operatively connected at its lower end with the driving-shaft, said feeding and looper mechanism being located within the hollow vertical post; substantially as described.

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

LANSING ONDERDONK.

Witnesses:

F. A. NORTH,
M. VAN WAGNER.