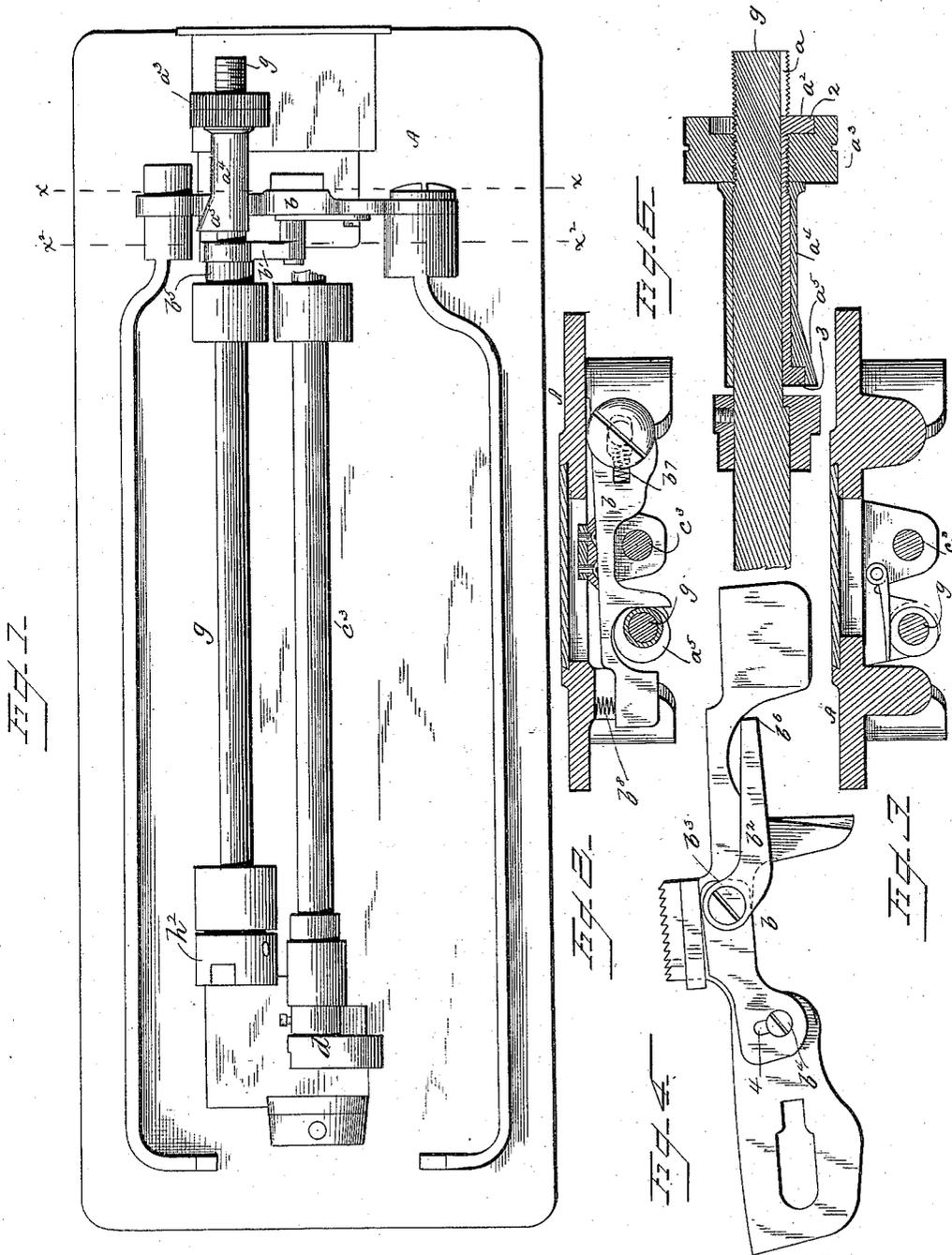


(No Model.)

E. T. THOMAS.
SEWING MACHINE.

No. 309,665.

Patented Dec. 23, 1884.



Witnesses
H. L. Ostrand
Wm. H. Finckel

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UNITED STATES PATENT OFFICE.

EDDY T. THOMAS, OF NEW YORK, N. Y., ASSIGNOR TO THE NEW HOME SEWING MACHINE COMPANY, OF ORANGE, MASSACHUSETTS.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 309,665, dated December 23, 1884.

Application filed April 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDDY T. THOMAS, of New York city and State, have invented an Improvement in Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object certain improvements in the feeding mechanism.

My present improvements are shown as embodied in a machine substantially such as described in United States Letters Patent No. 276,503, granted to me April 24, 1883.

The different features and combinations in which this invention consists will be specifically set forth in the claims at the end of this specification.

Figure 1 represents an under side view of a sewing-machine containing my improvements; Fig. 2, a section of Fig. 1 on the dotted line x ; Fig. 3, a section on the dotted line x^2 ; Fig. 4, an inner side view of the feed-dog on a larger scale, and Fig. 5 is a sectional detail of the end of the feed-operating shaft and its adjustable cam on a larger scale.

The feed-bar-operating shaft g , arm h^2 , and hook-operating shaft e^3 and its slotted arm d , are substantially the same as shown and described in Patent No. 276,503 referred to, where the same devices are described by like letters, and herein the said shaft will be operated as in the said patent, or they may, if desired, be operated as in United States Letters Patent No. 277,084, granted to me May 8, 1883. The feed-operating shaft is provided with a longitudinal groove, a , which is extended backward for about three inches, and receives the key a^2 , having projections 2 3, one at each end. The sleeve a^4 , having the cam-projection a^5 to actuate the feed-dog b to move the fabric or material forward over the bed-plate A, is made to surround the threaded outer end of the shaft g , as best shown in Fig. 5, and also to surround the said key, and between the end of the said sleeve and the pro-

jection 2 of the key is placed the milled nut a^3 , preferably recessed at its front face to receive the said projection 2, the nut also surrounding the shaft g . Rotation of the nut a^3 upon the threaded rotating shaft g independent of the regular rotation of the said shaft moves the cam a^5 longitudinally upon the shaft g , and brings a part of it, of greater or less radius, opposite, to strike the feed-dog b and move it longitudinally a greater or less distance, according to the position of the said cam a^5 on the said shaft. The feed-dog b at its rear side is provided with an adjustable lever, b^2 , (see Fig. 4,) having its fulcrum on a screw or stud, b^3 . This lever at one end is slotted, as at 4, to receive a screw, b^4 , by which the said lever may be adjusted so as to elevate or depress its outer end, b^6 , with relation to the periphery of cam b^2 , fast on the shaft g , the said cam, by its action upon the lever b^2 , serving to raise the feed-dog for the proper distance, the extent of the lifting of the feed-dog depending upon the adjustment of the lever b^2 . The spring b^7 effects the backward and the spring b^8 the downward movement of the feed-dog.

I claim—

1. The feed-dog, feed-operating shaft, grooved or splined and threaded as described, and the threaded key, combined with the sleeve, its attached feed-moving cam, and the nut to adjust the said sleeve and cam on the said shaft, substantially as described.

2. The feed-bar and the slotted lever b^2 , the fulcrum-screw b^3 fixed thereon, and the shaft g , and cam b^5 thereon, combined with the screw b^4 , to hold the said lever fixedly in adjusted position, the said lever fitting the said fulcrum-screw, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDDY T. THOMAS.

Witnesses:

G. W. GREGORY,
B. J. NOYES.