

(No Model.)

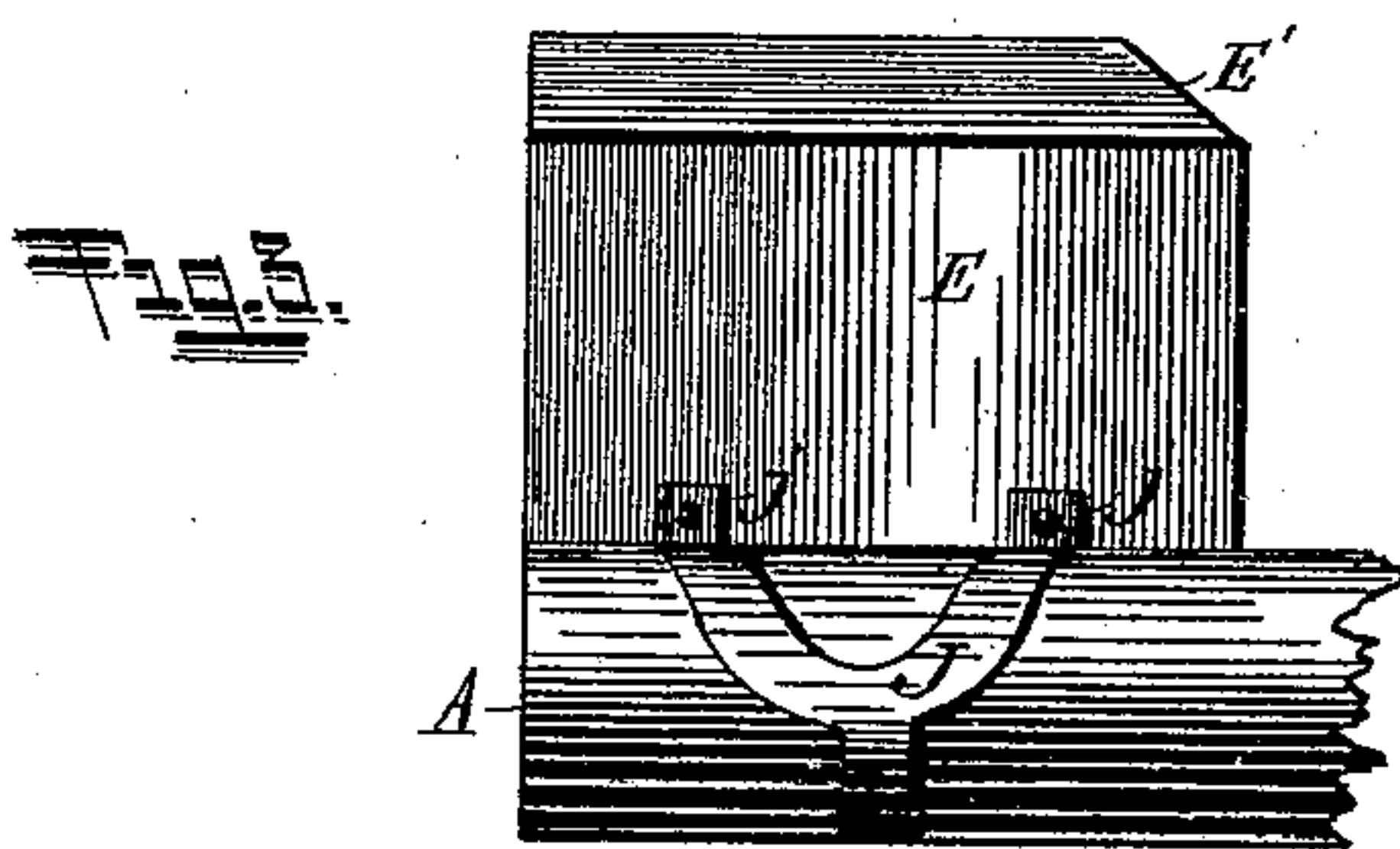
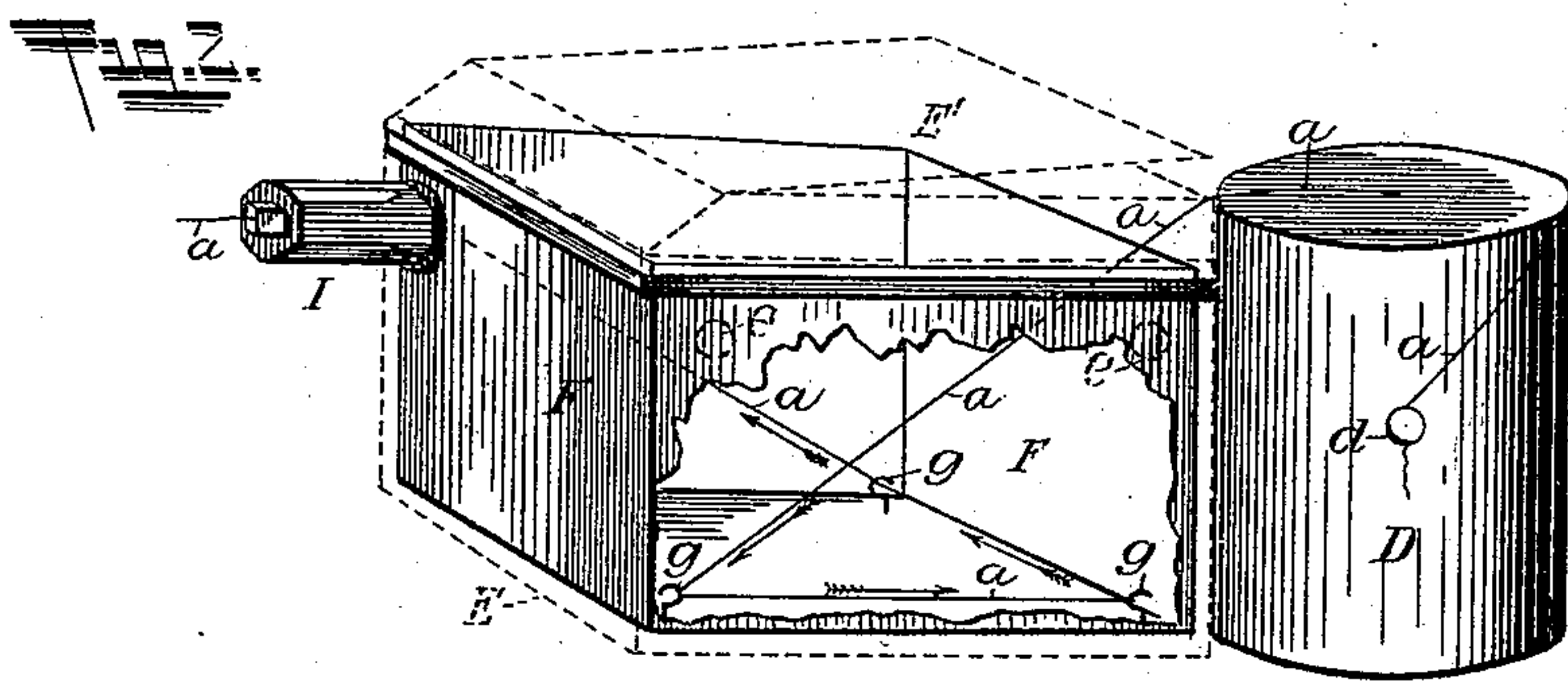
2 Sheets—Sheet 2.

S. A. ALLEN.

WAX HEATER AND THREAD WAXER FOR SEWING MACHINES.

No. 370,440.

Patented Sept. 27, 1887.



Witnesses
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UNITED STATES PATENT OFFICE.

SIDNEY A. ALLEN, OF AUBURN, MAINE.

WAX-HEATER AND THREAD-WAXER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 370,440, dated September 27, 1887.

Application filed May 9, 1887. Serial No. 237,602. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY A. ALLEN, a citizen of the United States, residing at Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Wax-Heaters and Thread-Waxers for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of wax-heating and thread-waxing attachments for sewing-machines wherein a rotating horn is provided with a combination of devices or attachments which are particularly adapted to the "Gordon-McKay" sewing-machines, but which is also applicable to sewing-machines of the ordinary construction.

To this end the invention consists in the novel construction and arrangement of the several parts, as will be hereinafter more specifically described, and pointed out in the claims.

In the accompanying drawings, to which reference is had and which fully illustrate my invention, Figure 1 is a front elevation of my invention. Fig. 2 is a perspective view of the wax-tank and thread-holder, and Fig. 3 is a detail showing the attachment of the wax-box to the shank of the horn.

Similar letters of reference indicate corresponding parts in the several figures.

In the drawings, the letter A represents the shank of an ordinary rotating horn, and B the horn, which is secured to the forward end and upper part thereof at an angle of about forty-five degrees; or said horn may be formed integrally with the shank.

C is a vertical rotating spindle upon which the several devices are mounted and by which they are rotated.

Secured at the rear end of the shank A and near the top of this spindle C, by means of nails or any suitable means, is one end of a curved spring, c, the other end of which is secured to the bottom of a thread-holding cylindrical box, D, having an opening in the center of its front side, through which the shank of a button, d, enters to secure it to the box. To this button d is secured one end of a

ball of thread, a, which is passed out through a hole made in the top at the edge of the box. The fastening of this end of the ball of thread which the box contains is simply for convenience in retaining this end fastened to keep from losing it. The other end of the ball of thread a is passed up in the box and out through a hole made in the center of the top of the box and over the top or cover downwardly into a quadrilateral wax-tank, E, having a jacket surrounding it, which is heated by means of a lamp for heating and melting the wax contained in said tank. This tank E, with its jacket, is secured to the side and rear end of the shank A of the horn B by means of a bifurcated metallic strip, J, the bifurcated ends j j of which being nailed or screwed to the tank E upon one side, the main portion of the strip J embracing the shank A and securing it in a similar manner as the bifurcated ends of the strip are secured to the tank E.

At the right-hand corner, in front of the tank E, an opening is made between the top of the tank E and cover E', the latter being raised for that purpose, as shown by dotted lines in Fig. 2 of the drawings. The course taken by the thread a after it enters the wax-tank E is clearly shown by means of arrows represented in the figure above referred to, said thread a passing around a number of hooks, which will be hereinafter explained, secured to the bottom of the tank E and disposed at each corner of the same, the front portion of the tank E being partially broken away for displaying the movement of the thread through the melted wax.

Rigidly secured to the bottom of the tank by means of hangers h h is a tray, H, for holding the lamp for heating the outside wall or jacket of the tank and melting the wax contained therein preparatory to waxing the thread, as stated. The jacket of the tank E has upon one or its front side two perforations, e e, by means of which air is admitted within the jacket and furnishes a draft for supporting the combustion of the lamp.

Within the bottom of the tank E, and secured and located in the corners of the same, are two or more hooks, g, around which the thread a traverses after leaving the cylindrical thread-box D, said thread a describing an

gles in its movement of about forty-five degrees upon its entrance into and its exit from the wax-tank E to and through a hexagonal stripper-plug, I, located and projecting from the upper and left-hand corner of the tank E, from whence it passes onto a tension-truck, G, journaled in standards *g'*, secured in any suitable manner to the upper part and forward end of the shank A of the horn B. From this tension-truck G it is carried up through the horn B and passes out through the smaller end or top of the horn, where it is fed to the needle of a sewing-machine in the usual manner.

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

1. The combination, with the horn B, of the shank A and spindle C, the latter being formed integrally therewith and supporting the thread-box D, having the button *d* for holding the stationary end of the thread *a*, all constructed and arranged as herein described, and for the purposes set forth.

2. The combination, with the horn B, having the shank A and vertical rotating spindle C, as described, of the thread-box D and tank

E, having the wall or jacket surrounding the same, and hooks *g*, disposed in the corners of said tank, and around which the thread is passed in horizontal and angular manner from the thread-box D on entering the tank, and passing out therefrom through the stripper-plug I, perforations *e e* in the jacket, and loose cover E, to allow the thread to enter the tank, all constructed, arranged, and operated as set forth.

3. The combination, with the horn B, shank A, and vertical rotating spindle C, of the thread-box D, wax-tank E, constructed as described and provided with a depending tray, I, for holding the lamp, the standards *g'*, having the tension-truck G journaled in their upper ends, all constructed, arranged, and operated as herein set forth, and for the purposes specified.

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

SIDNEY A. ALLEN.

Witnesses:

GEORGE C. WING,
L. W. ATTWOOD.