E. SMITH.

WAX POT FOR SHOE SEWING MACHINES.

APPLICATION FILED AUG. 12, 1909.

984,446. Patented Feb. 14, 1911.

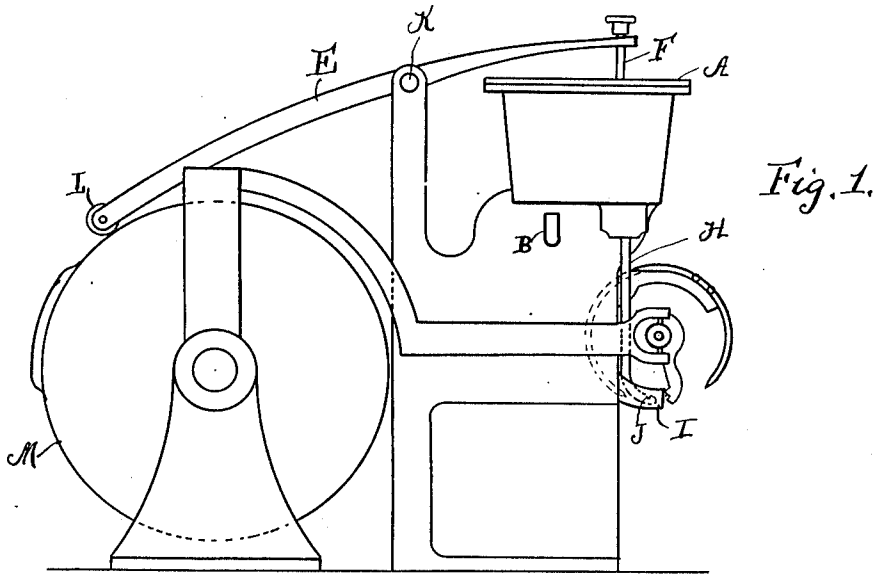

Fig. 1.

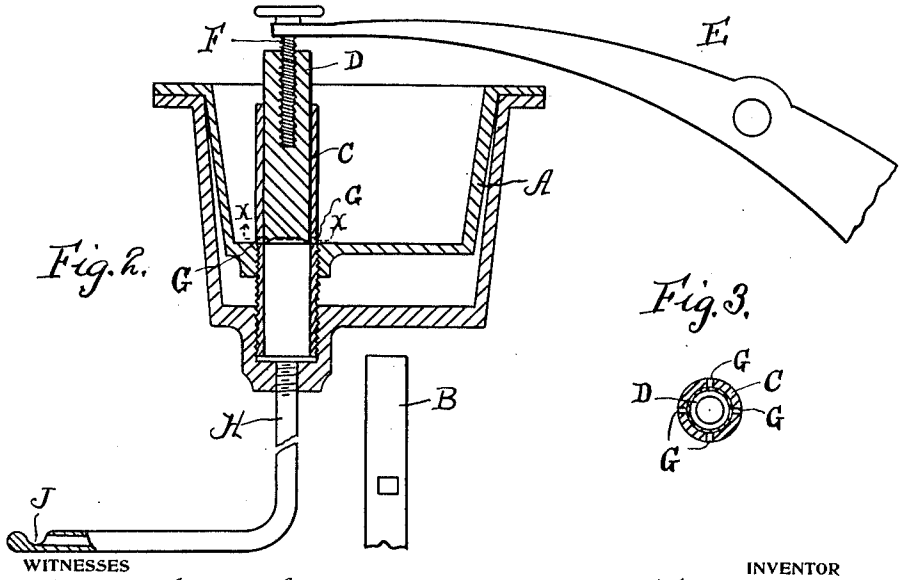

Fig. 2.

Fig. 3.

WITNESSES

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WAX-POT FOR SHOE-SEWING MACHINES.

984,446. Specification of Letters Patent. Patented Feb. 14, 1911.

Original application filed May 4, 1908, Serial No. 430,886. Divided and this application filed August 12, 1909. Serial No. 512,479.

To all whom it may concern:

Be it known that I, EUGENE SMITH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Wax-Pots for Shoe-Sewing Machines, of which the following is a specification.

My invention relates to a new and useful improvement in wax pots for shoe sewing machines, such as shown in my application Number 430,886, filed May 4, 1908, of which the present application is a division, and has for its object to provide a simple and effective device for delivering wax to the thread of such a machine at the most advantageous point.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1, is a side elevation of a portion of a shoe sewing machine showing the location of my improved wax pot, and a cam for operating the same. Fig. 2, a section of the wax pot showing the delivery tube leading therefrom, and Fig. 3, a section at the line *x*—*x* of Fig. 2.

In shoe sewing machines it is very essential to apply wax to the thread prior to its being used for the formation of stitches, and heretofore this has been accomplished by drawing the thread through the wax pot, back of the machine, the result being that when the machine is stopped temporarily the wax would be chilled, and before the machine could be again used it was necessary to draw off the previously waxed thread, but I overcome this defect by providing a water jacketed wax pot A, beneath which is located the Bunsen or other burner B in any suitable manner. Within this pot is secured the pump barrel C, the lower end of which is threaded through the bottom of the inner casing of the wax pot and into the outer casing, as clearly shown in Fig. 2, and in this pump barrel is fitted the plunger D.

E is a cam lever, in the outer end of which is swiveled the adjusting screw F, which latter is threaded into the plunger D so that by manipulating this screw the normal position of the plunger within the pump barrel will be adjusted. Holes G are formed through the pump barrel on a level with the bottom of the inner casing of the wax pot so that when the plunger is moved upward a certain amount of wax will be drawn from the pot into the barrel, and when the plunger moves downward it will first eject the surplus wax from the barrel until its lower end passes the holes G, after which it will force the wax through the tube H. The under side of the plunger is hollowed to facilitate its action.

The wax tube H leads to a point just back of the work rest I of the sewing machine, and has a groove J formed in its outer end in alinement with the travel of the needle and awl, and as the wax is forced through this tube it will issue through this groove through which the thread is drawn and consequently wax will be applied to the thread at the proper point, namely at the work.

The cam lever E which operates the plunger of the wax pot is pivoted at K and carries the roll L which rides upon the periphery of the cam disk M, the contour of which is such as to operate this lever at predetermined times for feeding the wax at the proper time relative to the movements of the awl and needle.

From this description it will be seen that instead of applying the wax as has heretofore been done with the thread back of the tension and take-ups, through which it must pass and be abrased thus lessening its efficiency when it finally reaches the work, the wax is here applied to the thread just prior to the latter being drawn into the work, which is of great advantage in this class of machines.

Having thus fully described my invention, what I claim as new and useful, is—

1. A wax pot for shoe sewing machines consisting of an inner and an outer casing forming the water compartment between said casings, a barrel located within said pot having holes therein, each approximately on a level with the inner casing, a plunger adapted to slide within the barrel, means for operating the plunger, and a tube leading from the barrel through which the operations of the plunger will cause wax to be applied to the thread, said tube terminating in

close proximity to the work, being operated upon by the machine and having a groove therein through which the thread is drawn to receive the wax as specified.

2. In a wax pot, the combination of an inner casing, an outer casing forming a water compartment around the inner casing, a barrel threaded through the bottom of the inner casing and into a socket formed in the outer casing, in such manner as to expose a portion of the barrel to the hot water contained in the water compartment, said barrel having holes therein on a level with the bottom of the inner casing, and a plunger fitted to slide in said barrel, as and for the purpose set forth.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

EUGENE SMITH.

Witnesses:
EDW. W. ANTICE,
S. M. GALLAGHER.