

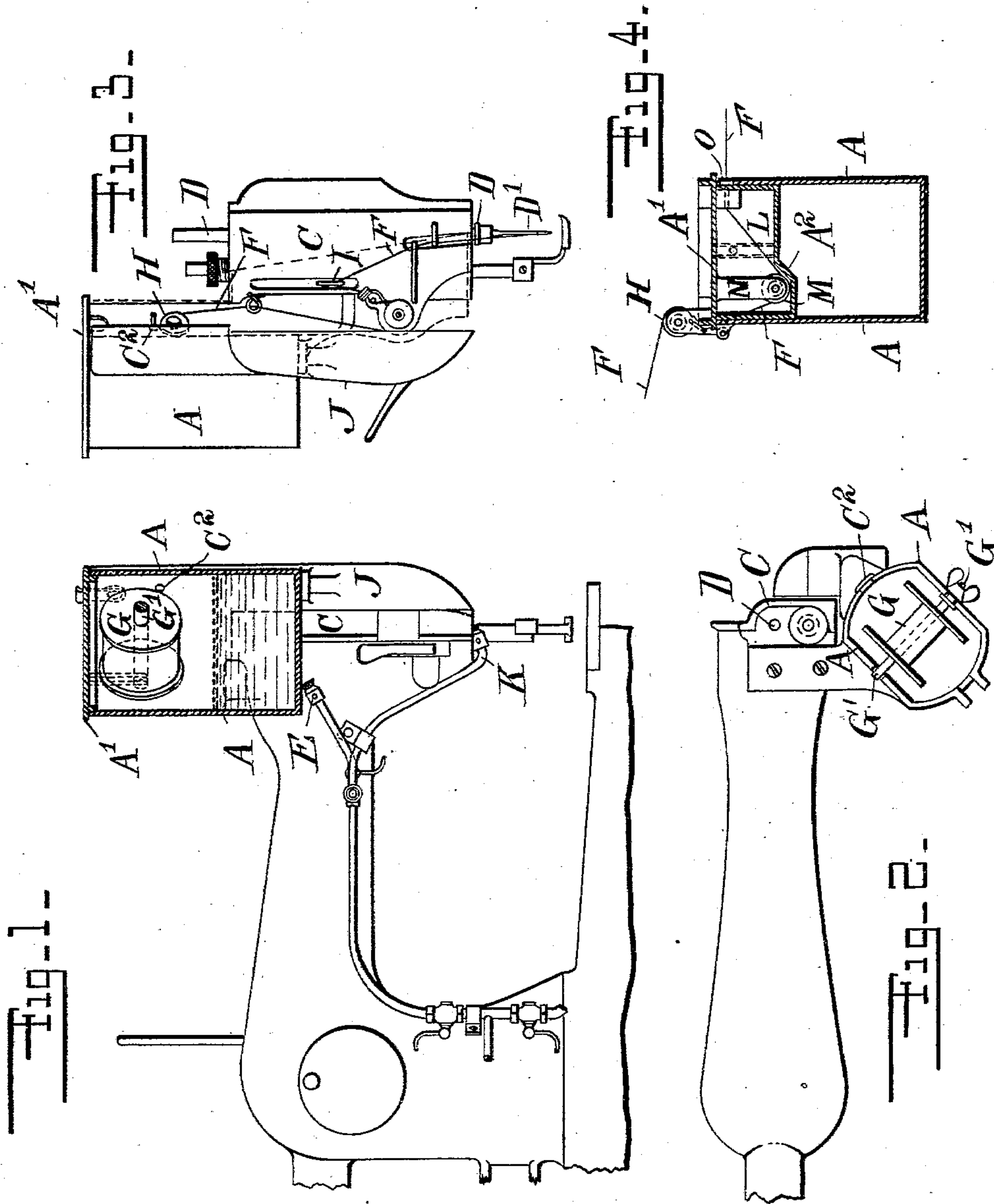
No. 715,431.

Patented Dec. 9, 1902.

P. SHATFORD.
WAXED THREAD SEWING MACHINE.

(Application filed Jan. 25, 1902.)

(No Model.)



WITNESSES

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UNITED STATES PATENT OFFICE.

PHILIP SHATFORD, OF DALMUIR, SCOTLAND, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, A CORPORATION OF NEW JERSEY.

WAXED-THREAD SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 715,431, dated December 9, 1902.

Application filed January 25, 1902. Serial No. 91,178. (No model.)

To all whom it may concern:

Be it known that I, PHILIP SHATFORD; a citizen of the United Kingdom of Great Britain and Ireland, residing at Hope Park Terrace, Dalmuir, county of Dumbarton, Scotland, have invented certain new and useful Improvements in or Relating to Waxed-Thread Sewing-Machines, (for which application for patent has been made in Great Britain, No. 5,726, dated March 19, 1901,) of which the following is a specification.

This invention relates to machines for sewing leather or other goods with waxed thread, and has for its object to provide an attachment for heating the wax or the waxed thread and maintaining the latter at a suitable temperature until it practically reaches the needle, so that the loss of thread and interruption of the work due to hardening of the wax during stoppages of the sewing operation may not be liable to occur.

In the accompanying drawings, which illustrate the invention, Figure 1 is a longitudinal elevation of a sewing-machine arm, showing the improved attachment applied thereto. Fig. 2 is a plan, and Fig. 3 an end view, of Fig. 1. Fig. 4 is a plan of a modification hereinafter referred to.

The attachment consists of a box-like heating-chamber A, with a swing or other cover A' secured to the head or face plate C of the sewing-machine close to the needle-bar D and take-up lever I, the said chamber in working with previously-waxed thread being as shown at Figs. 1, 2, and 3 and is partially filled with water, which is heated by a gas-jet, as E, or other means, so that the thread F, which is carried on a spool or reel G within the chamber A, is maintained at the temperature of the water-vapor, is kept soft, and becomes impregnated with the wax. The spool or reel G is preferably metallic; but not being exposed to the direct heat of the burner E may be of wood or like material, and it is carried on a spindle G', which may be fitted horizontally, vertically, or at an inclination in the chamber A. The use of water in the heating-chamber A may, however, be dispensed with.

The thread F from the spool G may pass through an orifice in the heating-chamber A to a tension device H, mounted on the heat-

ing-chamber A, and may pass thence through a second tension device H', mounted on the head or face plate C, thence through the eye of the take-up I, and thence to the needle D', and in order that its temperature may not fall by exposure to the air it is protected by an inclosing hollow cover J, hinged, as by a vertical pivot at J', to the heating-chamber A or to the face-plate or other part of the machine, the said hollow cover J when closed, as shown in Figs. 1 and 2, affording a chamber inclosing the tension devices H and H' and the take-up lever, so as to exclude access of cold air to the waxed thread F, a gas-jet K being also provided below the said cover J when desired to maintain the required temperature within the chamber afforded by said cover. The hinged cover J may be readily swung aside, as shown in Fig. 3, when access to the tension and take-up devices is desired, as in threading up the machine.

In working with thread which is waxed as the sewing proceeds the heating-chamber A is made to hold the wax, or a wax-box, such as is shown at Fig. 4, is fitted therein and is maintained at the required temperature either by the direct play upon the chamber of a gas-jet or by water contained in a false bottom or jacket heated by the jet E. The dry thread F is led through a tension device H² on the cover or lid A' of the chamber, down through the wax in the wax-box L, and around a roller M, fitted on an arm or bracket N, extending from the cover or lid A' to the bottom of the wax-box, and thence through a clearing-orifice O to the usual tension and take-up devices, the waxed thread F being inclosed by a cover in the manner hereinbefore described.

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

1. In a wax-thread sewing-machine, an attachment composed of a box-like heating-chamber carried upon the head or face plate of the machine, above the work-plate, combined with means for heating said chamber, and a hinged hollow cover arranged above the work-plate and affording a chamber adapted to inclose the usual tension and take-up devices through which the thread is led from said heating-chamber of the needle.

2. In a wax-thread sewing-machine, an attachment composed of a box-like heating-chamber carried upon the head or face plate of the machine, above the work-plate, combined with means for heating said chamber, a hinged hollow cover arranged above the work-plate and affording a chamber adapted to inclose the usual tension and take-up devices through which the thread is led from said heating-chamber to the needle, and means for heating the chamber afforded by said cover.

3. In a wax-thread sewing-machine, an attachment composed of a box-like chamber on the head or face plate of the machine, above the work-plate, combined with means for heating said chamber, a wax-receptacle in

said chamber through which the dry thread passes, a tension device through which the dry thread is led from the thread-supply to the wax, a roller carried on a bracket depending from the cover of the wax-chamber and arranged to dip into the wax, and a hinged hollow cover above the work-plate inclosing the usual tension and take-up devices through which the thread is led from said heating-chamber to the needle.

In witness whereof I have hereunto set my hand in presence of two witnesses.

PHILIP SHATFORD.

Witnesses:

WALLACE FAIRWEATHER,
JNO. ARMSTRONG, Jr.