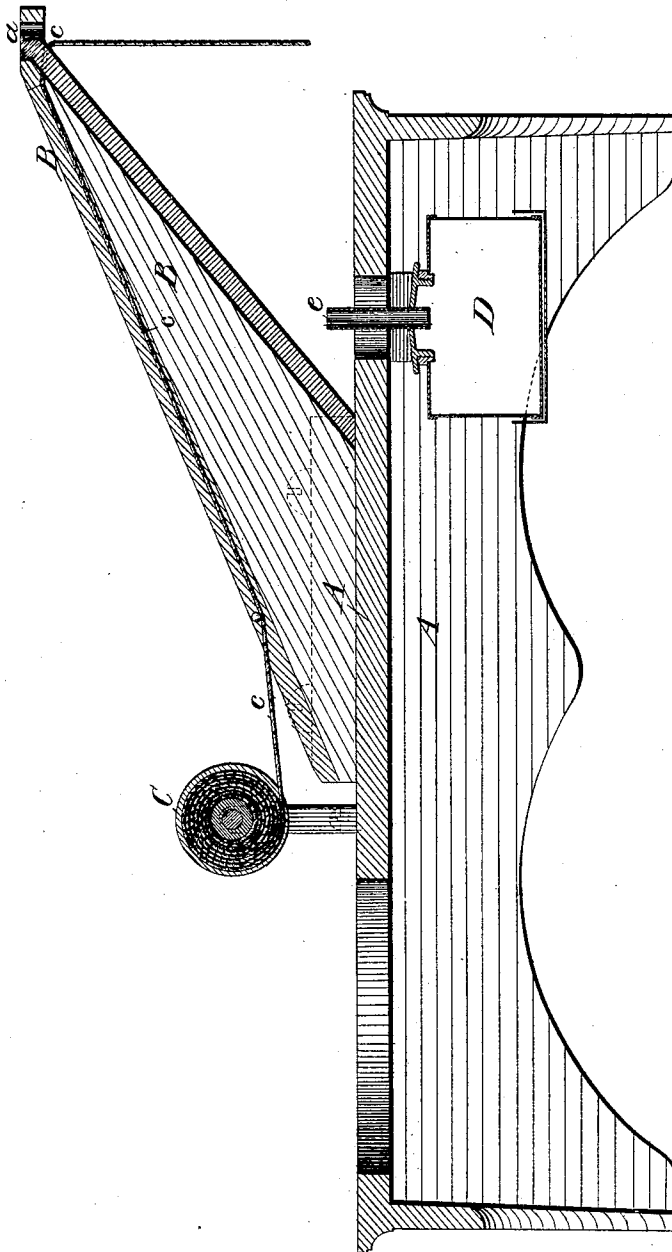


R. W. DREW.

Attachment for Sewing Machines.

No 39,092.

Patented June 30, 1863.



Witnesses:
B. A. Stoughton
Harv. Fenwick.

Inventor:
Reuben W. Drew.
By atty *A. B. Stoughton.*

UNITED STATES PATENT OFFICE.

REUBEN W. DREW, OF PLYMOUTH, ASSIGNOR TO ALFRED B. ELY, OF
NEWTON, MASSACHUSETTS.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 39,092, dated June 30, 1863.

To all whom it may concern:

Be it known that I, REUBEN W. DREW, of Plymouth, in the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Attachments for Waxed-Thread Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and which represents a section through what is known as a "horn-machine" for sewing on the soles of boots and shoes, but which is equally applicable to any other sewing-machine using what is termed a "waxed thread."

In the use of clear waxed thread in sewing-machines it has been found that the rooms or apartments where used must be highly heated to make the waxed thread sufficiently pliable to work in and through a machine, and so great has been the difficulty of making threads waxed with clear shoe-maker's-wax sufficiently pliable, or flexible to work in machines that an inferior article of wax, or, rather, of a composition of a softer nature, has been resorted to, which is actually injurious to the thread, either rotting it or evaporating and leaving the thread dry. After much experiment I have succeeded in making an attachment to a sewing-machine using a waxed thread that is perfectly practical and highly useful, enabling me to use waxed threads in any room or building under any temperatures.

My invention relates and is applicable to any sewing-machine using waxed threads, and whose parts to which the heat is applied are made of metal, whatever may be its construction and mode of operation, but so that the heat may be distributed over the waxed thread without allowing the flame to injure it; and it consists in the application of heat by the flame of a lamp, or of a gas-burner, or their equivalents, to a sewing-machine using waxed threads, for the purpose of warming the thread and rendering it pliable, and thus applicable to machine-sewing under any temperatures of the external air.

To enable others skilled in the art to make and use my invention, I will proceed to de-

scribe its application to what is termed a "horn-machine" for sewing on the soles of boots and shoes, its application to other boot and shoe or leather sewing machines being equally obvious without any modification of the general plan other than within the scope of any mechanic or attendant on such machines.

A represents the base of a sewing-machine, on which is arranged a metallic horn, B, over which the shoe or boot to be sewed is placed, the sewing-point being at or near the point *a*.

C is a spool or bobbin carrying a waxed thread, *c*, which may pass along the horn B, in a groove or otherwise, to the sewing-point *a*, where, by means of a needle, hook, bobbin, or other appliances well known for forming a stitch in or through the article to be sewed, it may be interlocked into stitches.

Under the frame or base A, I arrange a lamp, D, the wick-tube of which may project through said base, so that its flame may, by conduction or the direct application of its heat, warm the metal horn sufficiently to in turn warm the wax of the thread *c*, and thus render it pliable and flexible at the point where it is to be passed through the leather or other material to be sewed by it and interlocked into a stitch or stitches. It is obvious that any flame other than a lamp will serve the same purpose—such as gas; but a burning-fluid or gas with the least quantity of crude carbon in it will be more cleanly. The lamp or flame may be placed elsewhere than where shown; but I have shown a convenient place for its location. The lamp may be removable or accessible for replenishing or otherwise.

Having thus fully described the nature, object, and purpose of my invention, what I claim is—

The application of heat by or through the flame of a lamp, gas-burner, or their equivalents, to waxed-thread sewing-machines, in the manner substantially as described, for the purpose of warming the thread and rendering it pliable.

REUBEN W. DREW.

Witnesses:

DANL D. BRODHEAD,
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