

(No Model.)

W. RICHARDSON & T. C. BAITER.

THREAD WAXING ATTACHMENT FOR SEWING MACHINES.

No. 354,237.

Patented Dec. 14, 1886.

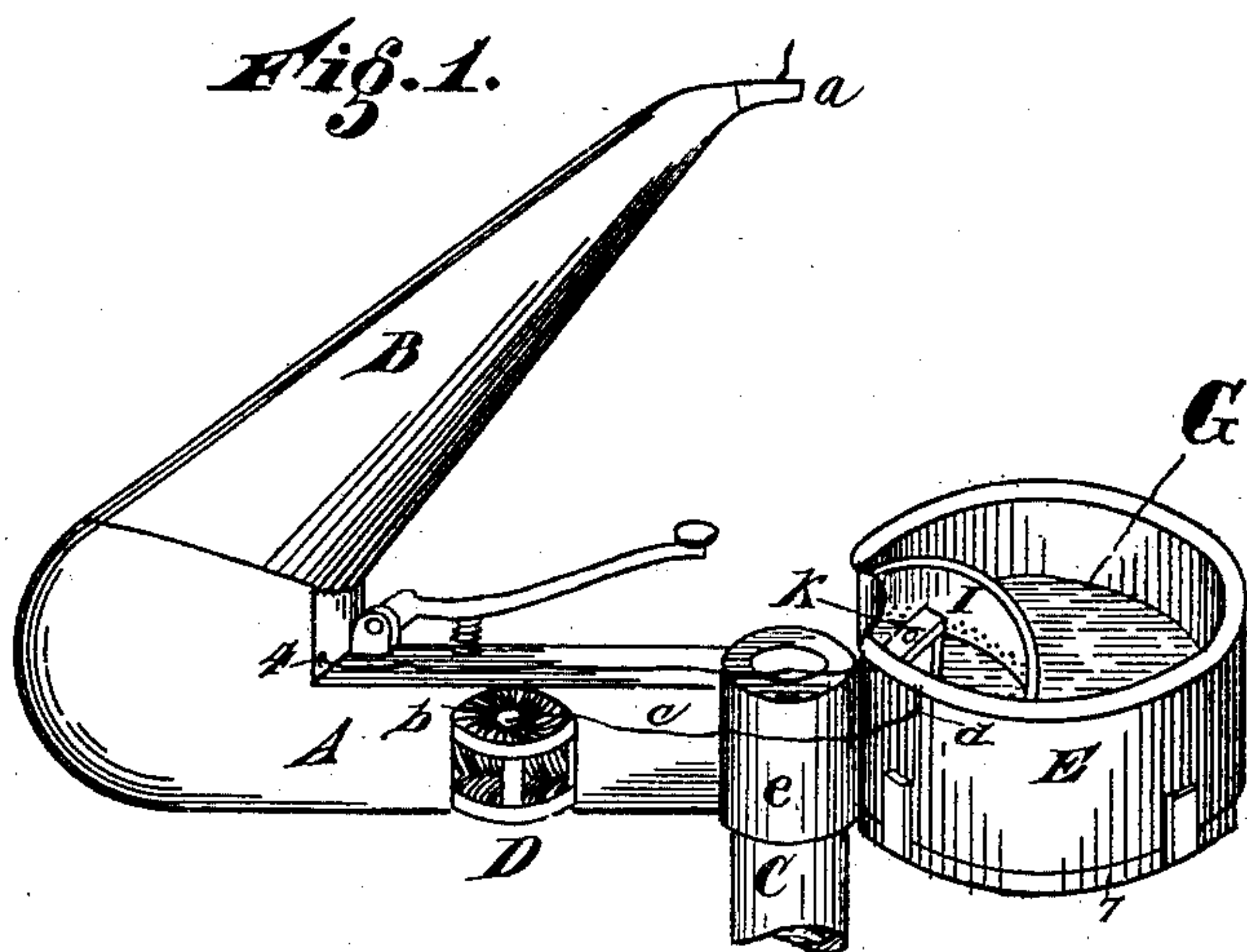


Fig. 2.

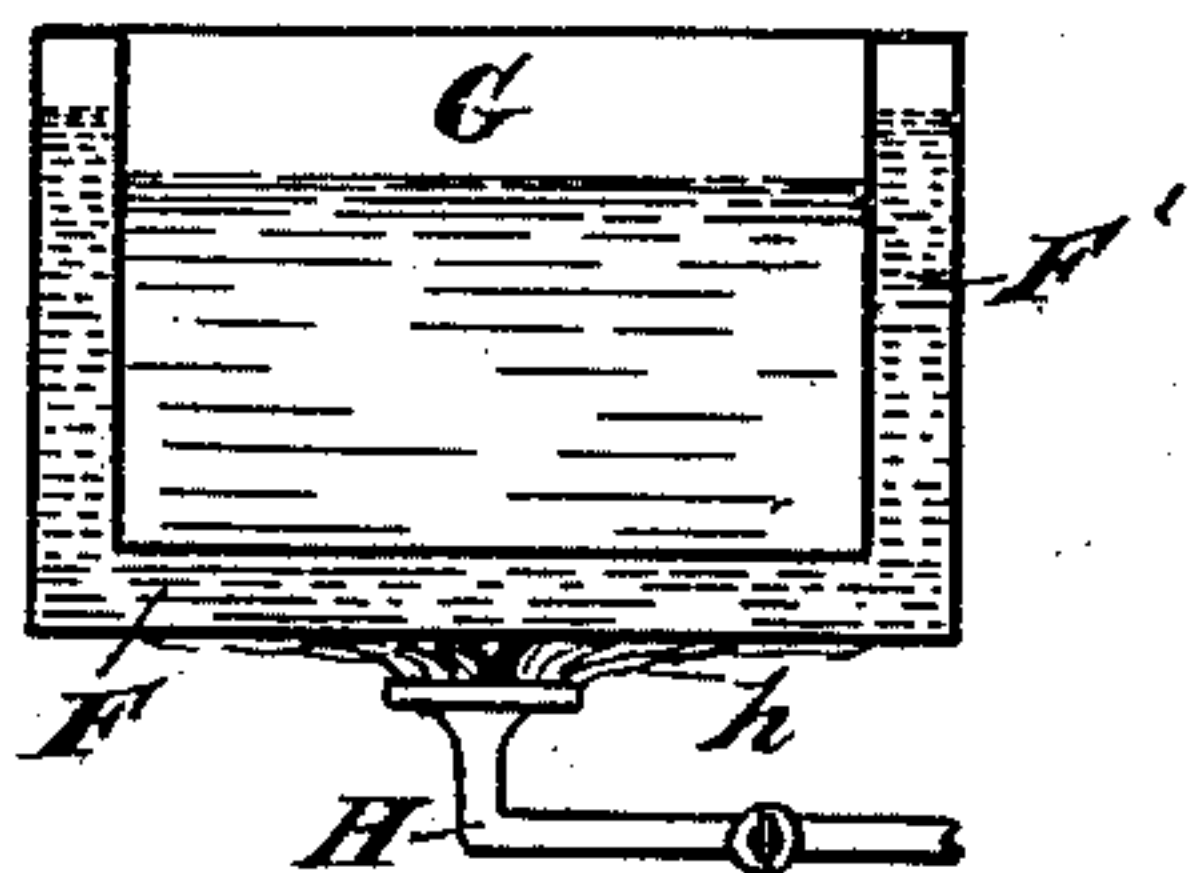


Fig. 3.

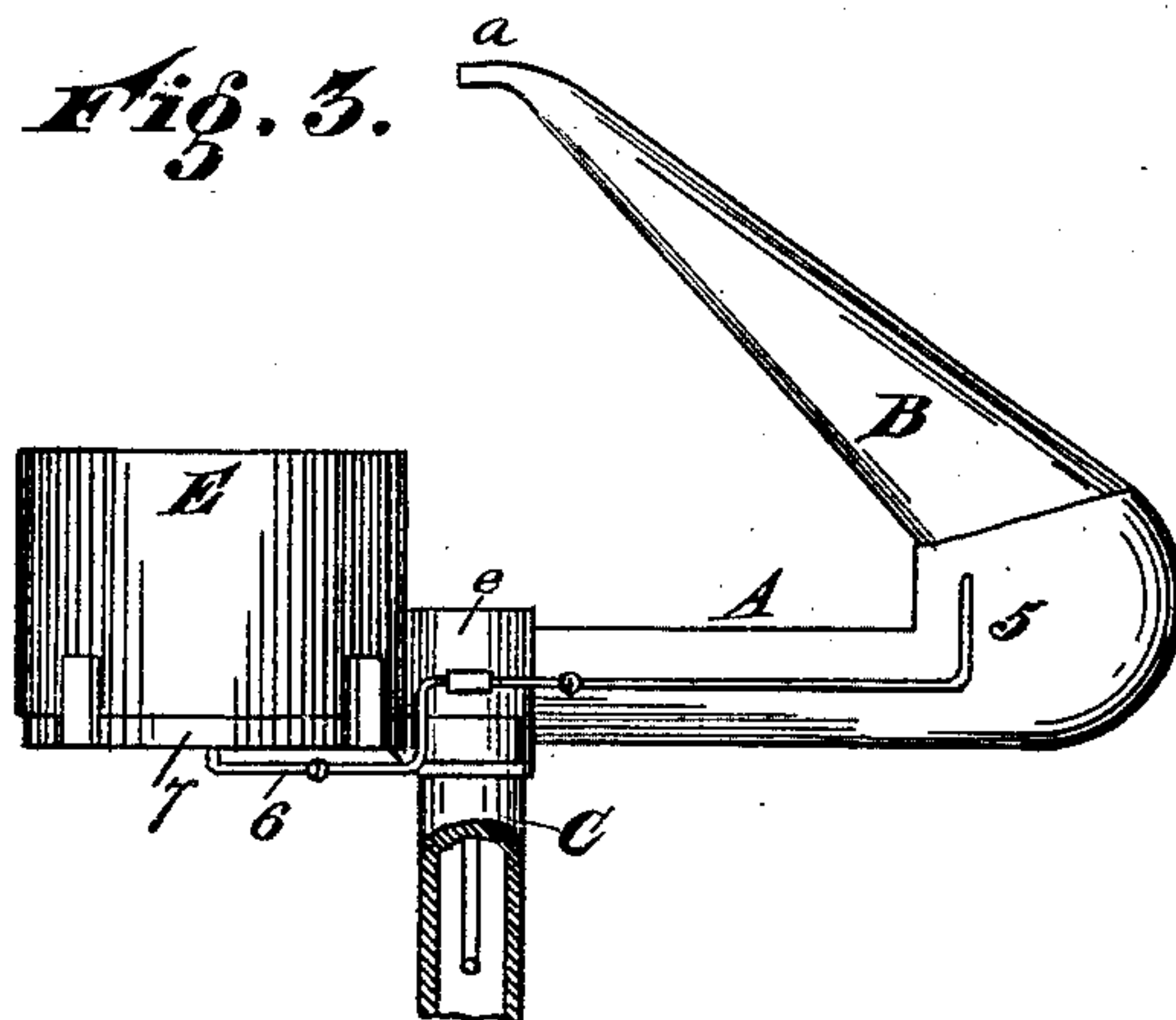
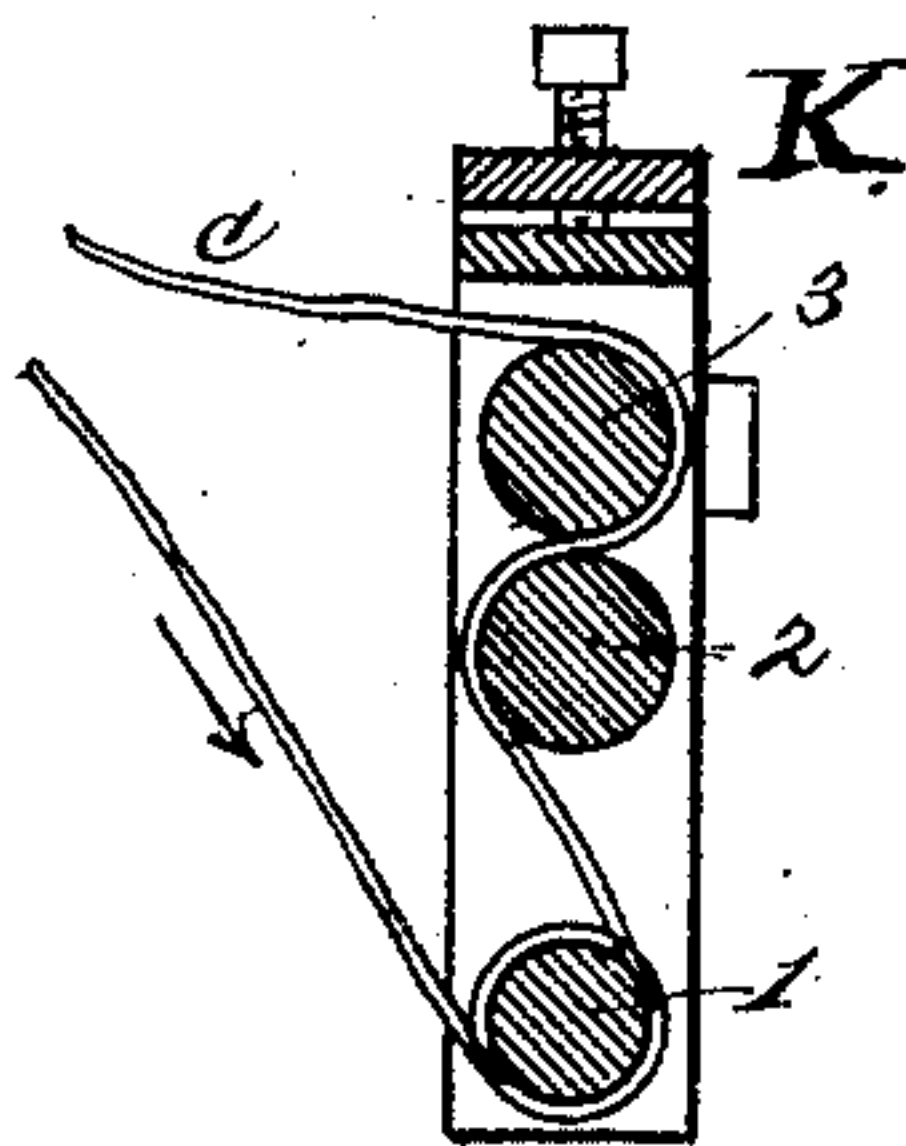


Fig. 4.



Attest

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UNITED STATES PATENT OFFICE.

WILLIAM RICHARDSON AND THEODORE C. BAITER, OF CINCINNATI, OHIO.

THREAD-WAXING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 354,237, dated December 14, 1886.

Application filed November 21, 1885. Serial No. 183,549. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM RICHARDSON and THEODORE C. BAITER, residents of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Thread-Waxing Attachments for Sewing-Machines, of which the following is a specification.

This invention has for its object to provide the rotating horn of a boot and shoe sewing machine with a novel combination of devices for waxing the thread, and this we accomplish in the manner and by the means hereinafter described and claimed, reference being made to the accompanying drawings, illustrating our invention, in which—

Figure 1 is a perspective view of our invention attached to the horn of a sewing-machine; Fig. 2, a cross-section of the waxing-tank. Fig. 3 is an elevation of the side opposite to that shown in Fig. 1, showing the method of heating the wax-tank. Fig. 4 is a sectional elevation of the wax-stripper.

A represents the shank of the ordinary horn; B, the horn proper, through which the thread is passed to the wheel at the tip of the horn *a*.

D represents a rack for the twine or thread ball; *b*, the ball; *c*, the thread; C, the revolving spindle to which the horn is attached.

In operation the horn, shank, and spindle A B C are revolved or oscillated by the operator.

E represents the wax-tank, which is attached either to the spindle C or to the collar *e*, which secures the horn to the spindle C.

In Fig. 2 the wax-tank is shown in section. F F' represent a jacket around the reservoir G, in which the wax is melted. The space F at the bottom is filled or partly filled with water. H represents a gas-burner; *h*, the flame, which is consumed at the burner-tip, and impinges against the bottom of the reservoir and heats the water in the jacket F under the wax-tank. I represents a partition-stripper forming a recess, in which is placed a stripper, K. This partition is perforated with holes, so as to let the melted wax run through to the stripper, keeping back the impurities.

The ball *b* is placed in the rack B. The thread

is preferably passed through an orifice at *d* in the tank E, and passes under the roll 1 of the stripper and around rolls 2 and 3, and thence to the orifice 4 at the base of the horn B, where it is fed to the needle in the usual manner. Reservoir G and rack D, being rigidly attached to the shank of the horn, revolve with it, and the thread is unwound and waxed as it is drawn through by the needle operating at the tip of the revolving horn.

5 represents a burner for heating the horn.

6 represents a branch gas-pipe tapping pipe 5, and furnishing a tip for supporting combustion under the reservoir, as shown in Fig. 3.

The stripper is readily detachable from the tank, so it can be lifted out of the melted wax to adjust the thread, and in case of breakage or stoppage to correct the same.

7 represents a rim on which the tank E sets. It is readily detachable therefrom.

The strainer-partition in the waxing-tank extends from the bottom of the tank upward, preferably to the top thereof. The nature of the impurities to be kept back by the strainer are dirt, paper, lint, and other foreign substances which stick to wax, as well as to the ball of wax itself, which is placed in the recess back of the strainer, so that only pure strained wax is in the apartment containing the stripper. Any foraminous metallic disk, wire-gauze, or other material having meshes sufficiently coarse to allow the melted wax to pass through, and yet keep back the substances named, will serve the purpose.

Having described our invention, what we claim is—

1. The combination, with the upright rotating spindle C and the horn B, moving therewith, of a wax-reservoir connected with said spindle, an upright perforated strainer-partition, I, extended across the reservoir, the stripper K, located in the reservoir between its wall and the perforated partition, and a heater for the reservoir, substantially as described.

2. The combination, with the rotating spindle C and the shank A, having the horn B and collar *e*, of the wax-reservoir rigidly connected with the collar and projecting laterally therefrom, a strainer, I, extending across the res-

ervoir, the stripper K, located in the reservoir between the wall thereof and the strainer, and a gas-burner located directly beneath the wax-reservoir, substantially as described.

5 3. The revolving horn A B and wax-tank E, through which the thread *c* passes as it is drawn through the wax and the stripper K in tank E, and thence through the hollow horn, in combination with the branch pipes 5 and 6,
10 the former having a burner within the horn

and the latter a burner beneath the wax-tank, substantially as described.

In testimony whereof we have hereunto set our hands.

WILLIAM RICHARDSON.
THEODORE C. BAITER.

Witnesses:

ROBERT ZAHNER,
M. E. MILLIKAN.