

No. 680,582.

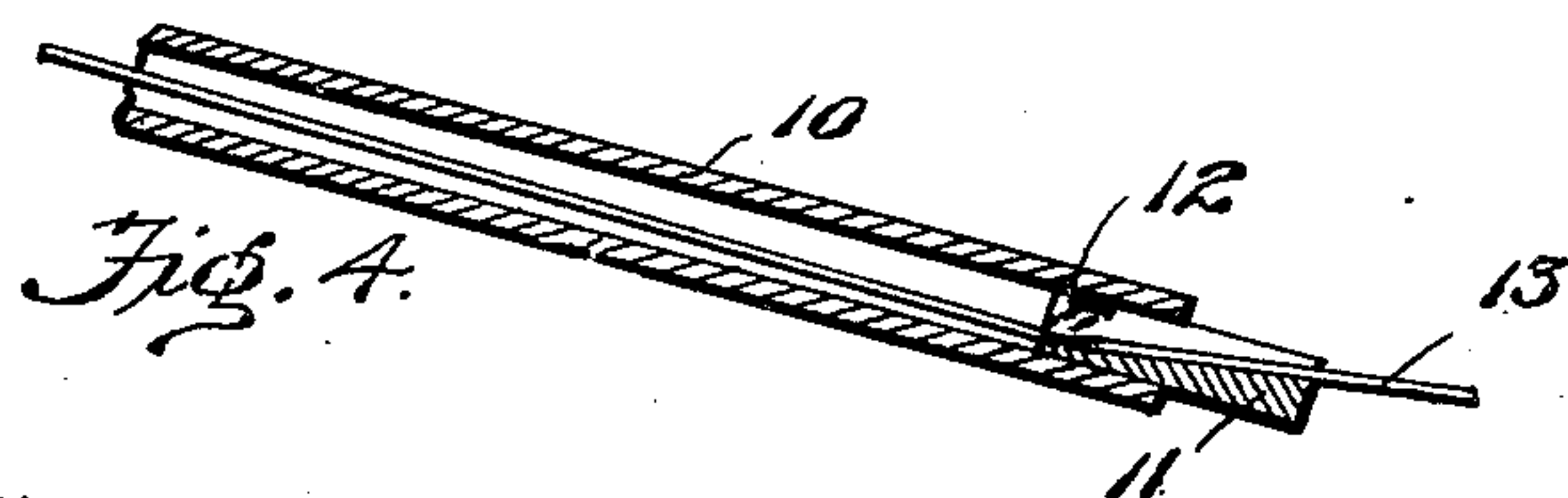
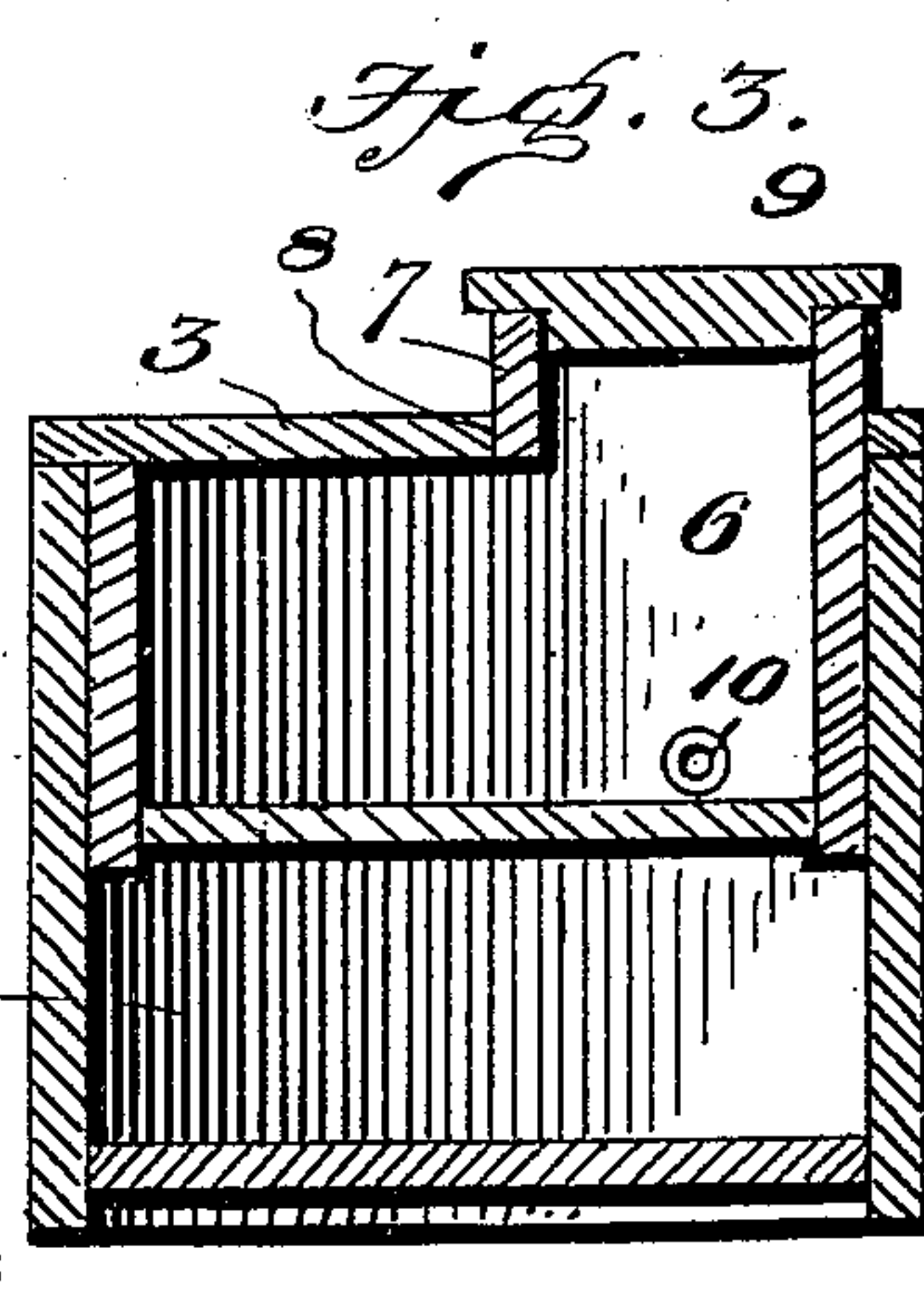
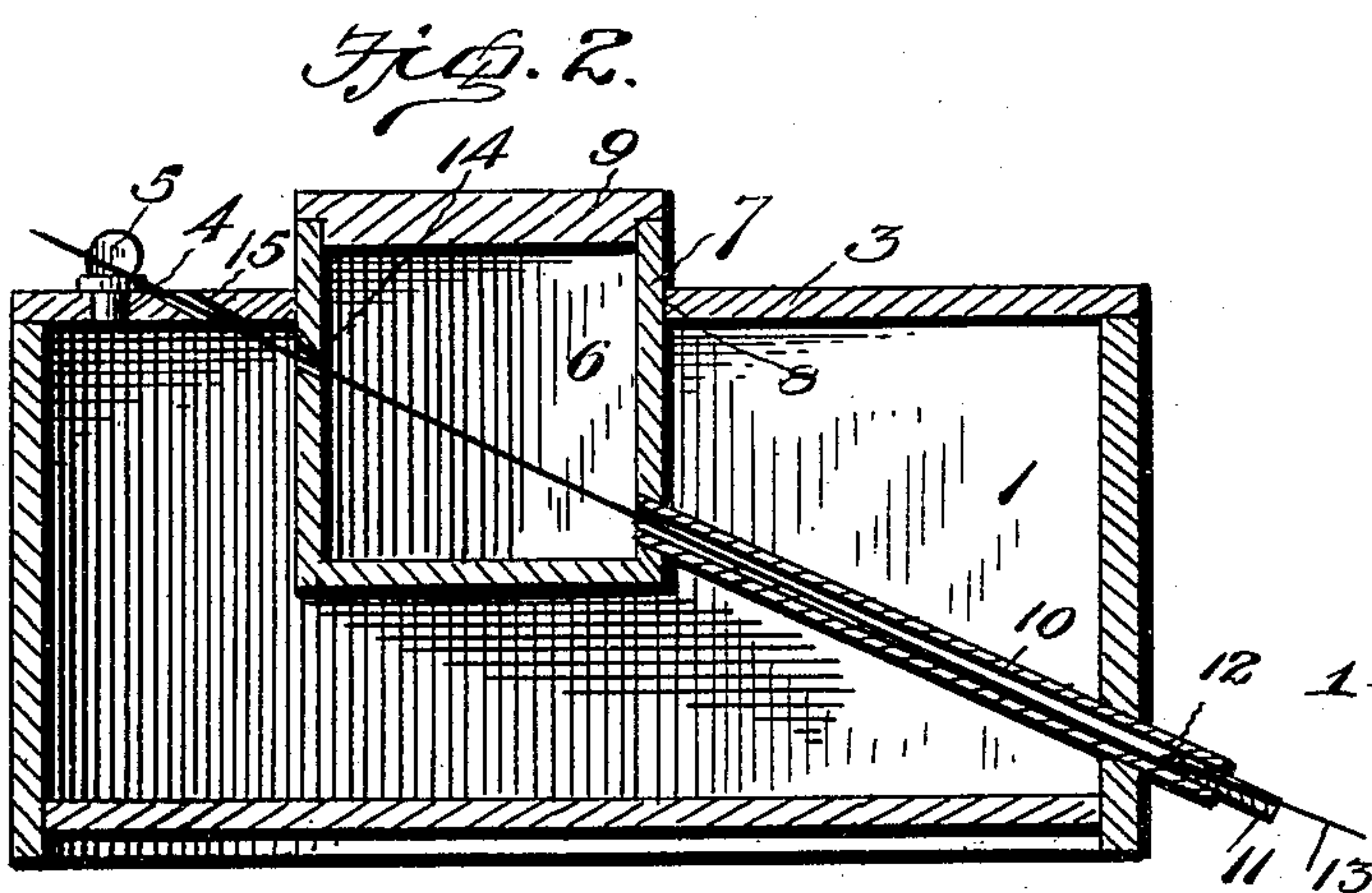
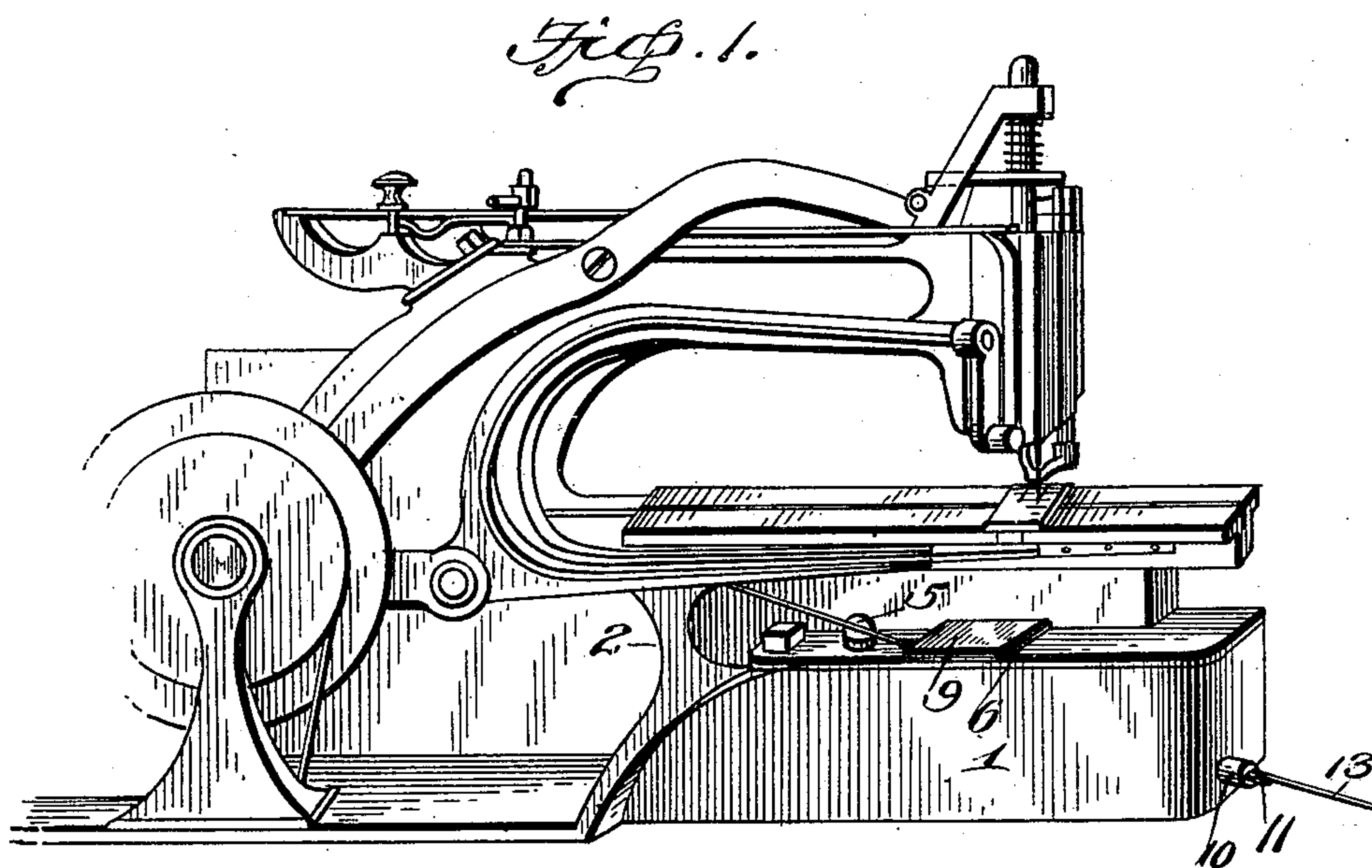
Patented Aug. 13, 1901.

P. GRANT.

THREAD WAXING ATTACHMENT FOR SEWING MACHINES.

(Application filed Apr. 22, 1901.)

(No Model.)



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Witnesses

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UNITED STATES PATENT OFFICE.

PETER GRANT, OF MARQUETTE, MICHIGAN.

THREAD-WAXING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 680,582, dated August 13, 1901.

Application filed April 22, 1901. Serial No. 56,975. (No model.)

To all whom it may concern:

Be it known that I, PETER GRANT, a citizen of the United States, residing at Marquette, in the county of Marquette and State of Michigan, have invented certain new and useful Improvements in Thread-Waxing Attachments for Sewing-Machines; and I do 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 a thread-waxing attachment for sewing-machines; and its object is to provide a simple and effective device whereby the thread which is to be wound upon the bobbins may be quickly and conveniently waxed.

The invention consists of certain novel features of construction and combination of parts, as will be hereinafter more fully described, and particularly set forth in the appended claim.

In the accompanying drawings, Figure 1 is a perspective view of a harness-sewing machine having my invention applied thereto. Fig. 2 is a vertical longitudinal section through the boiler and wax-pot on the line of the waxing-tube, and Fig. 3 is a vertical transverse section through the boiler and wax-pot. Fig. 4 is an enlarged detail section through the tube 10, showing the stripper.

Referring to the drawings, 1 represents the boiler or heating chamber of my improved thread-waxing attachment, which is mounted horizontally upon the frame 2 of a harness-sewing machine and consists of a box or casing of suitable form and construction provided with a removable top or cover 3, through which access is afforded to the interior parts.

In this top or cover 3 is formed an opening 4, closed by a plug 5, through which the heating-chamber may be supplied with water when it is desired to employ hot water as the heating medium.

Arranged transversely within the heating-chamber 1 is a wax-pot 6, which is located a suitable distance above the bottom of the chamber to provide an intervening space for the reception or circulation of the heating medium and is provided at the top with a mouth or filling extension 7, which projects upwardly to the exterior through an opening

8, formed in the said top or cover 3, and is closed by a cap or cover 9. By removing this cover access is afforded to the wax-pot to fill the same with wax or to remove the wax contained therein therefrom.

A waxing tube or pipe 10 is fitted at its inner end in an opening formed in the outer end of the wax-pot and extends on a downward inclination therefrom and has its outer end projecting to the exterior through the outer end of the boiler or heating-chamber 1. Said outer end of the tube is partially closed by a grooved nib 11, the groove in which is formed to provide a restricted space or passage for the thread. The nib partially closes the outer end of the tube to prevent the escape of the heated wax, and the escape of wax past the thread through the groove or passage in the nib is prevented by a flexible valve or stripper 12, which is adapted to yield inwardly to allow the free movement of the thread, but prevents the outward passage of the heated wax between the thread and wall of the tube. The thread 13 to be waxed is passed through the groove in the nib and through the tube into the waxing-pot and thence through corresponding openings 14 and 15, formed in the inner end wall of the waxing-pot and in the top or cover 3 of the boiler or heating-chamber 1. The end of the thread which has been passed through the opening 15 may then be connected up for winding the thread which is being drawn through the waxing device on the bobbin and the operation continued until any desired number of bobbins are filled.

In operation the wax in the melting-pot 6 is heated in any desired manner, as by means of hot water contained within the heating-chamber 1 or a current of steam or hot air supplied thereto, and the wax on melting flows by gravity into and through the waxing-tube, and as the thread is drawn there- through and through the waxing-pot the thread becomes coated with the melted wax. As the thread is drawn through the tube the flexible stripper 12 bears thereon and yields to allow the thread to freely move and at the same time prevents the melted wax from passing out between the thread and the wall of the tube and becoming wasted. If desired, the heating box or chamber 1 may be heated

by means of a lamp or burner and utilized as a receptacle for hot water, or hot water may be directly supplied to the chamber through the opening 4, or in lieu thereof suitable
5 connections may be provided to supply steam or hot air to the chamber. In some cases also the wax in a melted state may be poured into the waxing-pot and kept in such state by
10 hot water supplied to the heating-chamber through the opening 4.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily un-
15 derstood, and it will be seen that a simple and effective construction of waxing device is provided, also that by means of the inclined tube, which is located directly within the heating-chamber and exposed directly to
20 the heat, a comparatively long waxing chamber or passage is provided to insure the thorough and even waxing of the thread and prevent the wax from becoming sticky or hardening. The employment of the construction
25 and arrangement of parts described is also advantageous in that the wax feeds by gravity from the wax-pot to the waxing-tube, allowing the heating-chamber to be mounted horizontally upon the frame of the machine, thus
30 obviating the necessity of employing a spe-

cial construction of frame or mounting for the attachment.

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

In a wax-thread attachment for sewing-machines, the combination with the frame of the machine, of a heating box or chamber mounted horizontally thereon and having a removable top or cover, a wax-pot mounted
40 within said chamber and having a mouth extending to the exterior through an opening in said top or cover, a cap or cover for closing said mouth, an inclined waxing-tube communicating at one end with the waxing-pot
45 and extending to the exterior through the wall of the heating-chamber at its outer end, a nib in the outer end of the tube and having a groove for the passage of the thread, and a flexible stripper in the outer end of the
50 tube to prevent the escape of wax from the tube, substantially as described.

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

PETER GRANT.

Witnesses:

S. W. CLEARY,
PETER GRANT, Jr.