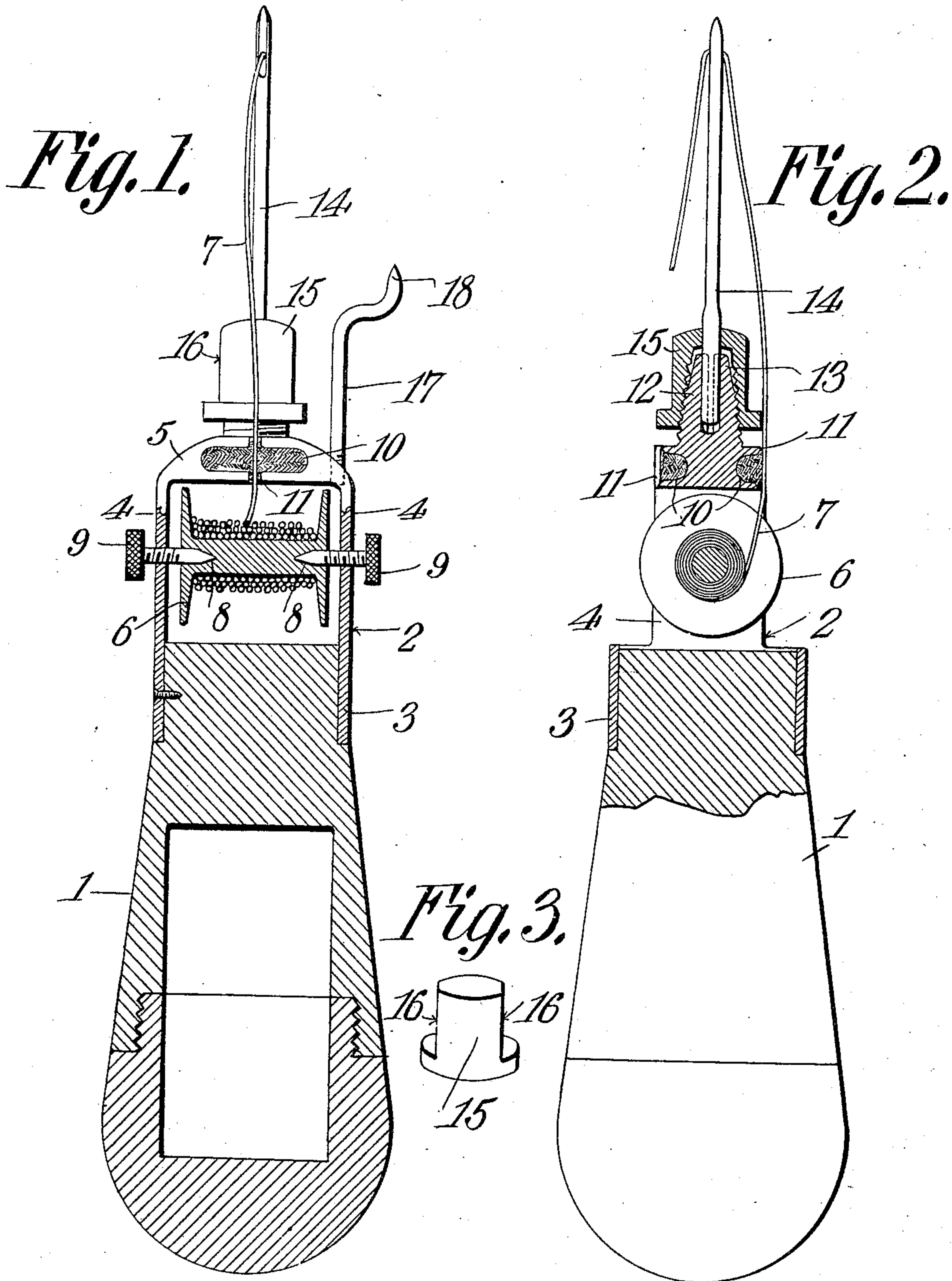


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PATENTED NOV. 5, 1907.

S. E. S. CLARK.
PUNCHING AND STITCHING TOOL.

APPLICATION FILED AUG. 17, 1906.



WITNESSES:

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SEALY E. S. CLARK, OF GAGE, OKLAHOMA TERRITORY.

PUNCHING AND STITCHING TOOL.

No. 870,492.

Specification of Letters Patent.

Patented Nov. 5, 1907.

Application filed August 17, 1906. Serial No. 331,090.

To all whom it may concern:

Be it known that I, SEALY E. S. CLARK, a citizen of the United States, residing at Gage, in the county of Woodward and Territory of Oklahoma, have invented

5 a new and useful Punching and Stitching Tool, of which the following is a specification.

This invention relates to a punching and stitching tool.

The objects of the invention are, first, to regulate the tension on the thread so as to control the feed thereof to the needle; second, to wax the thread in an automatic manner as it is fed to the needle; and third, to form at each punching or stitching operation a depression in the material which is being operated upon so

15 as to indicate the position of the next succeeding stitch or perforation.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any of its advantages.

In the accompanying drawings forming part of this specification: Figure 1 is a vertical section, partly in elevation, of a device constructed in accordance with the invention; Fig. 2 is a view at a right angle to Fig. 1; and Fig. 3 is a perspective view of the needle cap.

Like reference numerals indicate corresponding parts in the different figures of the drawings.

The reference numeral 1 indicates a handle which may be of any suitable form and construction. The handle 1 is provided with a yoke 2 which, in the embodiment of invention illustrated, comprises a ferrule 3 having parallel integral arms 4—4 connected with each other at their outer ends by an integral cross-piece 5. A spool or thread-holder 6 for the thread 7 is mounted between the parallel arms 4—4 of the yoke 2, and is formed in its opposite ends with depressions 8. The means for holding the spool or thread-holder 6 in position and for exerting an adjustable tension upon the thread so as to control its feed, preferably consists of a pair of adjusting screws 9 which are threaded through the parallel arms 4 of the yoke 2 in such manner that their inner ends fit into the depressions 8 in the spool 6. It will be obvious that the adjusting screws 9 serve as trunnions for holding the spool or thread-holder in position and for permitting the necessary rotation thereof. By loosening the screws 9 to a slight degree, the spool or thread-holder 6 will be permitted to rotate freely so as to feed a large quantity of thread to the needle, and by tightening said screws

the rotary movement of the spool or thread-holder will be retarded so as to exert tension upon the thread and, therefore, decrease the amount which is fed to the needle.

The means which I provide for automatically waxing the thread as it is fed to the needle, preferably consists of a pair of wax-holders 10, which are mounted upon opposite sides of the cross-piece 5 and preferably are in the nature of small cups having open-ended slots 11 constituting guide means for the thread. In operation, a small quantity of wax is forced into each wax-holder 10 and as the thread 7 passes through one of the said wax-holders it is automatically waxed. The two wax-holders 10 are provided for the reason that it sometimes becomes desirable, when the supply of wax in one holder is exhausted, to loosen the adjusting screws 9 and reverse the spool 6 so that the thread will be fed through the slot 11 in the other wax-holder. It will be apparent that other means than the small cups 10 can be employed for holding the wax.

The needle holding means preferably consists of a split socket 12, which is mounted upon the cross-piece 5 and is formed with a conical outer end 13, the end of said split socket nearest the cross-piece 5 being threaded, as shown. After the needle 14 has been fitted into the split socket 12, a threaded cap 15, which is formed with a conical depression to fit the conical end 13, is passed over the needle and screwed down upon the split socket 12 so as to force the different members thereof together and thus cause them to clamp the needle. The cap 15 preferably is formed with a plurality of flattened faces 16 to adapt it to be readily secured in position with a small monkey wrench or other implement whenever necessary.

The means for regulating the distance between the different perforations or stitches, preferably consists of a stitch gage 17 which is in the nature of a crank bar having a pointed outer end 18 and a threaded inner end 19 which is fitted into a threaded socket in the cross-piece 5. As shown in the drawing, the pointed outer end 18 of the crank bar or stitch gage 17, is adapted to clear the threaded cap 15 when said stitch gage is rotated toward the needle 14, whereby the pointed end 18 can be disposed very close to the needle whenever it is desired to form close stitches. By rotating the stop gage 17 so as to dispose its pointed end 18 a greater or lesser distance away from the needle 14, the distance between the different stitches or perforations can be readily regulated, it being understood that each time the needle 14 is passed through the material, the pointed end 18 of the stitch gage 17 forms a slight depression in the material so as to indicate the point at which the needle 14 should be inserted upon the next operation thereof.

The improved punching and stitching tool of this invention is strong, simple, durable and inexpensive in construction as well as thoroughly efficient in operation.

What is claimed is:

- 5 1. In a stitching tool, the combination with a body portion or handle, and a needle suitably mounted thereon, of a pair of bearing members arranged in alinement and adjustable relatively to each other and to the handle or body portion and having conical inner ends, and a thread supply
- 10 spool having axially arranged recesses to receive the proximate ends of the bearing members and adapted to supply thread to the needle.
- 15 2. In a stitching tool, the combination with a handle portion, and a needle suitably mounted thereon, of a pair of bearing members embodying set screws arranged in alinement and adjustable relatively to one another, and a spool for supplying thread to the needle having axially arranged recesses adapted to receive and cooperate with the proximate ends of the said set screws, relative adjust-
- 20 ment of the set screws serving to adjust the tension of the thread supplied to the needle.
- 25 3. In a stitching tool, the combination with a handle, of a yoke having its arms secured to the handle, a needle arranged on the intermediate portion of the yoke in alinement with the handle, a thread supplying device mounted between the arms of the yoke for feeding thread to the needle, and a waxing device arranged on the intermediate portion of the yoke and in alinement with the needle and the thread supplying device for automatically waxing the
- 30 thread as it is drawn therefrom.
4. In a stitching tool, the combination with a handle, of a yoke having its arms attached to the handle and provided with an intermediate portion extending transversely

of the handle and having an inwardly extending recess, a waxing substance contained in said recess, a needle at- 35 tached to the intermediate portion of the yoke at the forward side thereof, and a thread supplying reel arranged between the arms of the yoke and in alinement with the needle and the wax receiving recess.

5. In a stitching tool, the combination with a handle or 40 body portion, of a yoke having its arms secured to the handle and provided with an intermediate cross piece having recesses extending from the opposite sides thereof, a thread supplying spool journaled between the arms of the yoke in rear of the said recesses, of a waxing substance 45 contained within the said recesses, and a needle secured to the yoke in alinement with the spool and the wax containing recesses.

6. A device of the character described, comprising a 50 handle, a yoke consisting of a ferrule having a pair of arms and a cross-piece, a spool mounted between said arms, adjusting screws extending through said arms and engaging said spool for exerting tension upon the thread, wax- 55 holders connected with the cross-piece of said yoke, a split socket mounted upon said cross-piece and having a coned end, a needle mounted in said socket, a cap having a coned portion for holding said needle in position, and a stitch gage comprising a crank bar having a pointed outer end adapted to clear the upper end of said cap and a threaded 60 inner end adapted to engage said cross-piece.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SEALY E. S. CLARK.

Witnesses:

C. A. LAMB,

HENRY L. STACK.