No. 891,358. PATENTED JUNE 23, 1908.

J. W. MORGAN.

SEWING AWL.

APPLICATION FILED JUNE 27, 1907.

Fig. 1.

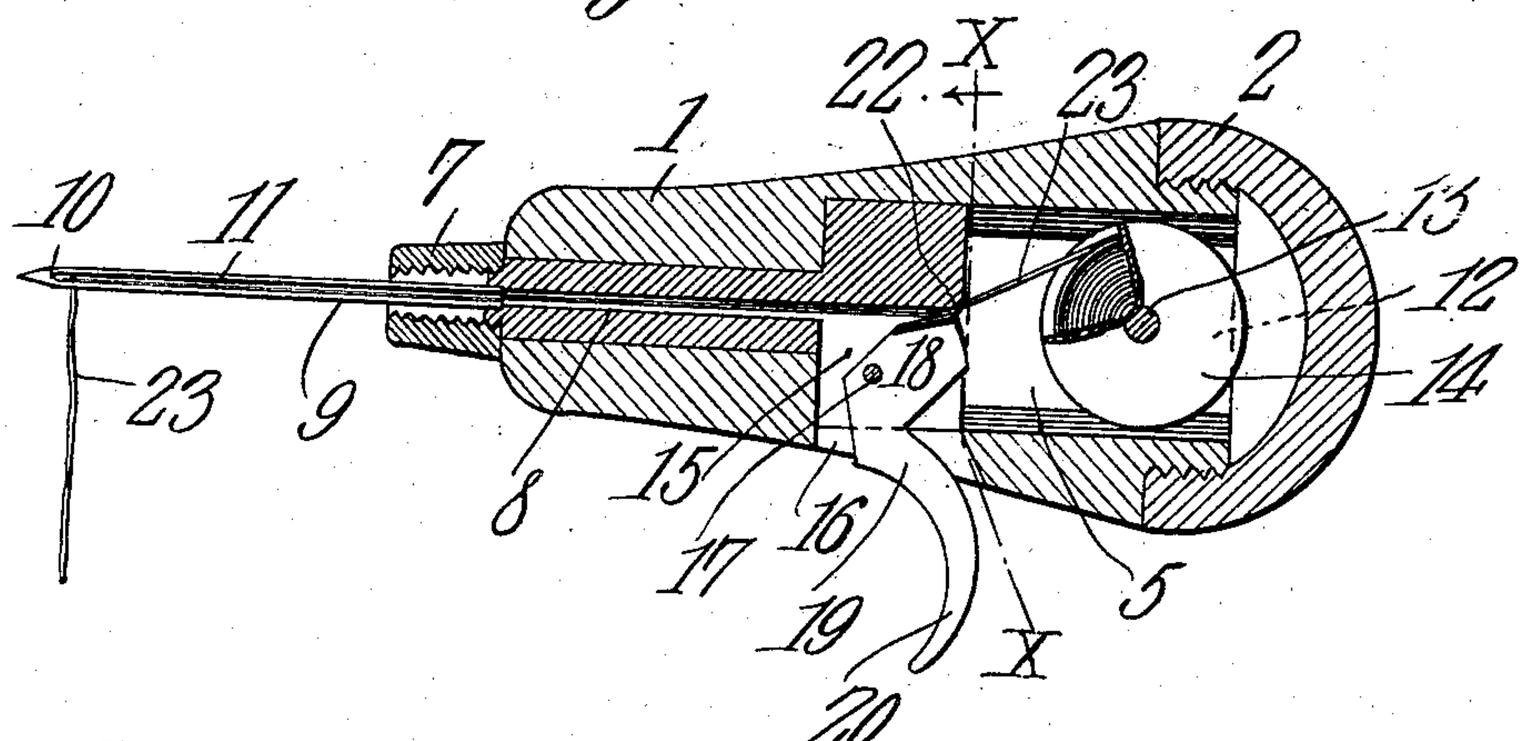


Fig. 2.

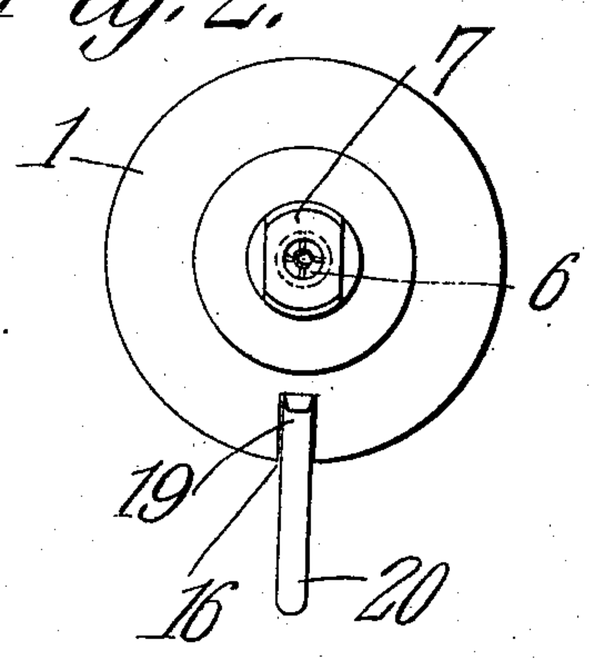


Fig. 3.

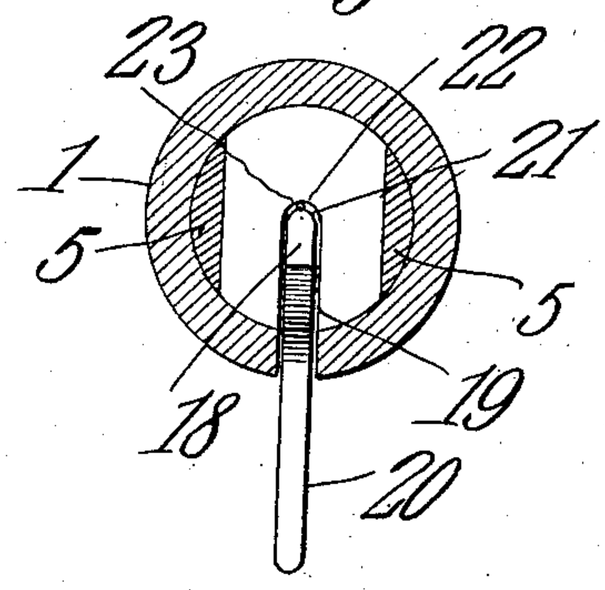
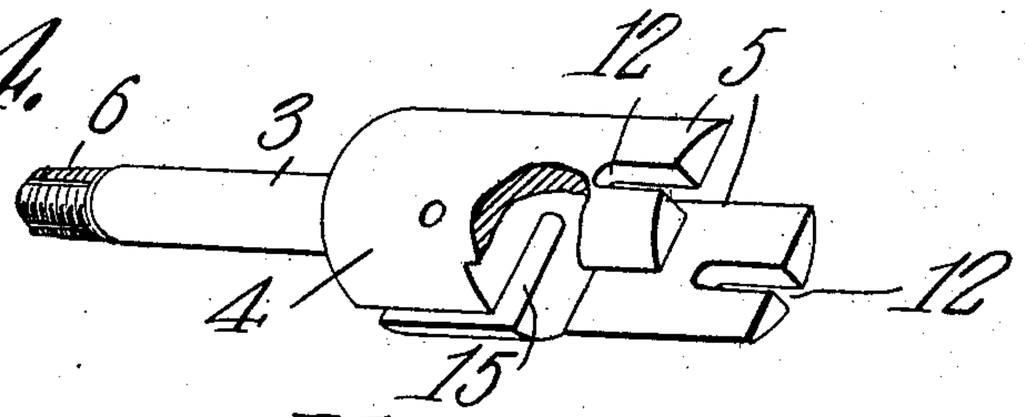


Fig. 4.



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SEWING-AWL.

No. 891,358. Specification of Letters Patent. Patented June 23, 1908.

Application filed June 27, 1907. Serial No. 381,132.

To all whom it may concern:

Be it known that I, JOHN W. MORGAN, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Sewing-Awl, of which the following is a specification.

This invention has reference to improvements in sewing awls, and its purpose is to provide a device wherein the thread is carried in the handle of the awl and automatically fed as desired, while the thread may be put under tension at the will of the operator in order that the parts to be sewed together may be firmly united, the thread forming what is known as the lock-stitch.

The invention consists essentially in a suitable handle having its rear end closed by a suitable cap, and in this handle there is fitted a casting or forging arranged to receive one end of a spool of sewing thread, which thread is conducted through an axial channel to and along a groove in the side of the needle to the eye of the latter. At a suitable intermediate point the casting carries a trigger-like clamp arranged to engage the thread so that when the needle is forced through the cloth or other material to be sewed, loops may be formed thereby and the extended end of the thread may be carried through said loops and then on the withdrawal of the needle the tension device may be operated to draw the loops as tight as the strength of the thread permits.

The invention will be fully understood from the following detailed description, taken in connection with the accompanying drawings forming part of this specification, in which,—

Figure 1 is a central longitudinal section of the device, with some parts shown in elevation; Fig. 2 is a front view, showing the needle in cross section; Fig. 3 is a section on the line *x*—*x* of Fig. 1, looking toward the front of the device; and Fig. 4 is a perspective view of the forging or casting carried by the awl handle, with a part broken away.

Referring to the drawings, there is shown a handle 1, suitably hollowed out to receive certain parts and provided with an end screw-cap 2, the exterior shape of the handle and cap being that commonly employed for sewing awls. Fitted to the interior of the handle is a metallic block, shown in perspective in Fig. 4. This block consists of a stem 3 arranged to fit axially in the forward portion of the awl handle, and this stem is expanded at the rear into a cylindrical block 4 provided with two rearwardly extending parallel wings 5 having their inner faces flat and parallel, and their outer faces conforming to the curvature of the exterior of the block 4. The outer end 6 of the stem is designed to project beyond the front end of the handle and is there threaded and provided with longitudinal cross slits. This threaded portion 6 receives a nut 7, the construction being such that when the nut 7 is screwed on to the threaded end 6, the wings formed by slitting the end 6 are forced together by the application of the nut, which may be slightly tapered for this purpose. Through the stem 3 and end 6 there is a central axial perforation 8 which, where it extends through the end 6, is sufficiently enlarged to receive the butt end of an awl needle 9 such as is used in sewing awls. This needle is provided with an eye 10 near its point and from this eye to the butt end of the needle there is a longitudinal side groove 11.

In the rear end of each wing 5 of the block 4 there is formed a longitudinal recess 12. These two recesses are for the purpose of receiving the journal 13 of a spool or reel 14 on which is wound the thread to be used for sewing. The wings 5 reach to the rearmost end of the handle 1 and when the cap 2 is removed the reel or spool 14 may be removed from its seat between the wings 5, or, after being refilled, may be replaced therein. When the cap is in place the spool is prevented from escaping from the recesses 12, so that its journals are always confined therein except when the cap is removed.

The axial passage 8 extends all the way through the stem 3 and block 4 and opens into the space between the wings 5. In the block 4 there is a radial slot or recess 15 leading from the exterior of the block to the passage 8, and in the handle 1 is a slot 16 leading into the slot or recess 15.

Pivotally secured to the block 4 by a suitable pin 17 is the head 18 of a lever 19 extending through the slot 16 and terminating exterior to the handle in a trigger-like finger-hold 20. The inner edge of the head 18 is rounded, as shown at 21, and the axial end of the slot or recess 15 is likewise rounded in conformity with the rounded end of the head 18, while the axial wall of the passage 8 is

rounded, as shown at 22, where it opens to the space between the wings 5. The trigger-like lever 19, with its head 18 and bearing edge 21, constitutes the tension device.

Now, let it be assumed that the spool 14 is wound full of suitable thread and that the spool is placed with its journals in the recesses 12. First, however, the thread, shown at 23, is passed through the channel 8 and into the groove 11 in the needle 9 and finally through the eye 10 of the needle. When ready to use the awl, the loose end of the thread is pulled out to a considerable distance. Now, when the awl is forced through the members to be sewed together the loose end is pulled all the way through. At the next passage of the awl through the cloth the thread will form a loop, through which the loose end on the rear face of the cloth pieces to be sewed together is passed, and the needle is then withdrawn. By pulling on the trigger 20 the rounded edge 21 of the head 18 is caused to clamp the thread against the rounded surface or shoulder 22, thereby preventing the thread from being drawn toward the needle. By pulling backward on the awl structure the thread may be put under any desired tension and the loop will be partially seated in the cloth between the surfaces thereof. When the needle is again passed through the cloth another loop is formed and the loose end is passed through the second loop, and so on from loop to loop, each loop being drawn tight in the manner described. In this manner all kinds of materials may be sewed together, including leather, sail cloth, and other heavy materials.

It will be seen that the thread feeds directly from the spool through the passage 8 without binding or twisting, since the axis of the spool 14 is in the plane of but at right angles to the axis of the passage 8. This prevents the thread from being tangled. It will also be observed that the thread passes axially through the handle and also longitudinally through the groove 11 along the entire length of the needle up to the eye. The thread is therefore prevented from coming in contact with the cloth or any obstruction. It will also be observed that by the use of the trigger-like tension device, the finger of the operator when in engagement therewith is in an easy position, assuming that the cap 2 is in the palm of the hand as is usual, and, the leverage being great, but little pressure is needed to effect the desired tension.

I claim:—

1. A sewing awl comprising a suitable handle having a removable cap at its butt end, an interior block provided with parallel wings having end recesses and a stem extension having an axial passage provided with a needle clamp at its front end beyond the front end of the handle, a thread spool or reel having its journals adapted to the recesses in the wings, and a tension device for the thread.

2. A sewing awl provided with a longitudinal passage for the thread, and a tension device comprising a lever pivoted within the body of the awl, said lever having a tension head formed on one side of the pivot point of the lever and entering the thread passage, and a trigger-like finger hold formed on the other side of the pivot point of the lever, said finger-hold being exterior to the handle and extending laterally with relation to the body.

3. A sewing awl comprising a suitable handle having a removable cap at its butt end, an interior block provided with parallel wings having end recesses and a stem extension having an axial passage and provided with a needle clamp at its front end beyond the front end of the handle, said block also having a radial slot or groove extending from its periphery to the axial passage, a thread spool or reel having its journals adapted to the recesses in the wings, and a tension device comprising a lever fulcrumed in the radial slot in the block, said lever having a head extending into the longitudinal passage through the block and a trigger-like end on the other side of its pivot from the head and extending outside of the handle.

4. A sewing awl comprising a handle provided with a screw cap at its butt end, a block within the handle having rearwardly extended parallel wings with recesses at their rear ends, said block also having a radial slot extending to its center, a stem formed integral with the block and provided with a central longitudinal passage coalescing with the radial slot in the block, said stem having its front end beyond the end of the handle formed into a needle clamp, a sewing needle adapted to the clamp and having a longitudinal side groove extending from the eye to the butt end of the needle and there coincident with the longitudinal passage through the stem, a thread reel having journals adapted to the recesses in the ends of the wings, and a clamp lever pivotally supported within the recess of the block, said clamp lever having a head with a rounded edge arranged to clamp the thread against the axial wall of the slot in the block and having a trigger-like extension on the side of the pivot remote from the head, said trigger-like extension passing through the handle and arranged exterior thereto.

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

JOHN W. MORGAN.

Witnesses:

ALEXANDER L. SHARPE,

JOHN R. LEAVELL.