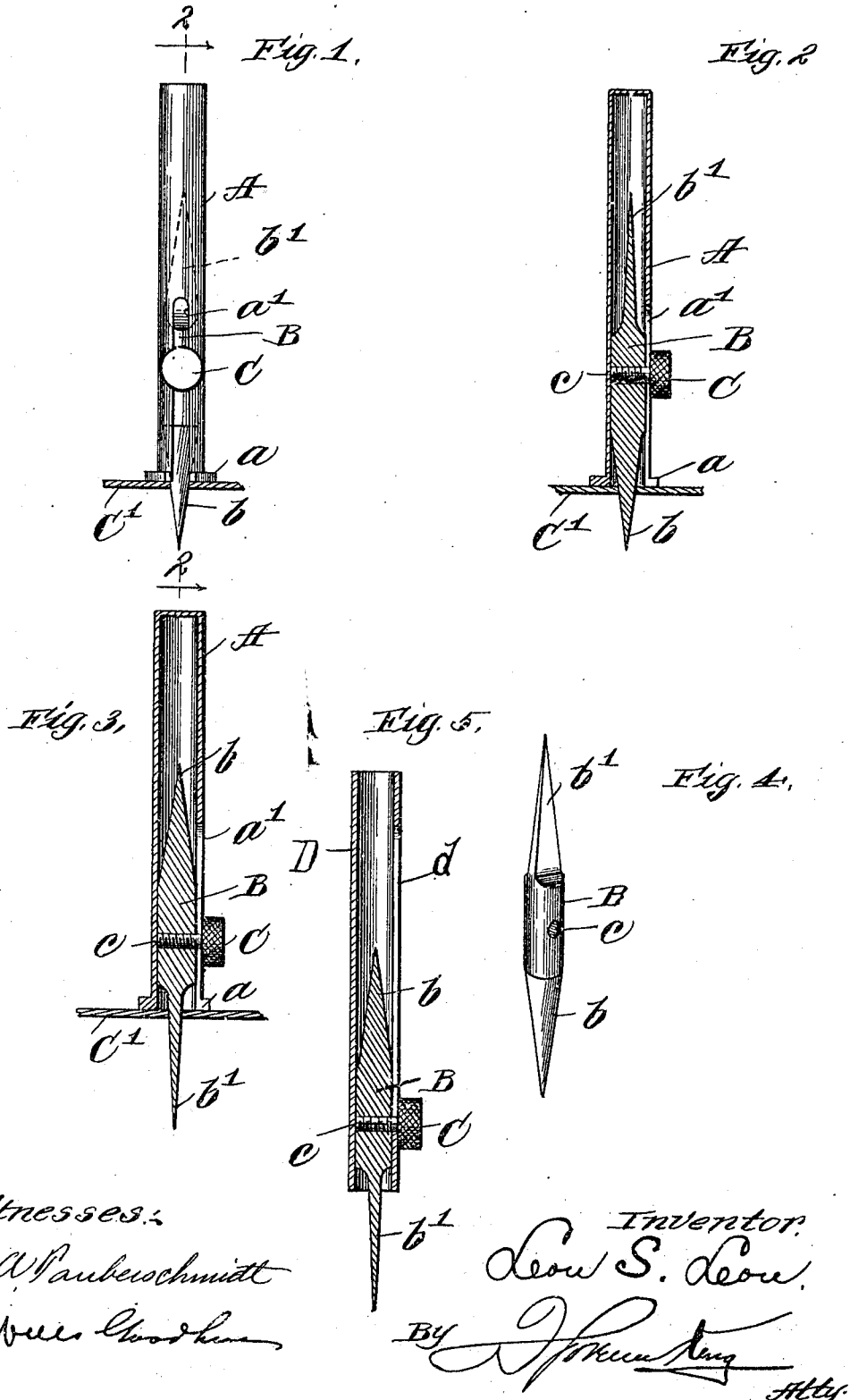


L. S. LEON.
EMBROIDERY PIERCER.
APPLICATION FILED JULY 26, 1909.

953,149.

Patented Mar. 29, 1910.



UNITED STATES PATENT OFFICE.

LEON S. LEON, OF CHICAGO, ILLINOIS.

EMBROIDERY-PIERCER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LEON S. LEON, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Embroidery-Piercers, of which the following, taken in connection with the drawing, is a description.

My invention has for its object the production of a piercer or stiletto designed to be used for perforating embroidery patterns in fabrics of various kinds.

Another object of my invention is to provide such an instrument with a shield or covering for the piercer that when it is not in use it may be folded or telescoped into a small space and the points protected.

A further object of my invention is to provide in the same instrument a piercer having two points, either of which may be easily adjusted for use with the same handle.

Other objects and advantages in my construction will be hereinafter more fully pointed out in the following description.

In the accompanying drawings I have illustrated what I now consider the preferred form of my construction, it being obvious that the size, proportion and material out of which the device is made may be varied without departing from the spirit of my invention, and in these drawings Figure 1 is a side elevation of my invention; Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1, illustrating one end of the piercer in position for use; Fig. 3 is a view similar to Fig. 2 illustrating the piercer in reversed position; Fig. 4 is an elevation of the piercer removed from the cylinder. Fig. 5 is a sectional view of a modification.

A represents a cylinder, preferably although not necessarily closed at one end thereof. An outwardly extending circumferential shoulder *a* surrounds the open end of the cylinder. An elongated slot *a'* extends from the open end of the cylinder to approximately the middle of the cylinder as shown.

B is a piercer which is of slightly smaller diameter than the inside of the cylinder. This piercer tapers to a point at each end thereof, the shank at one end *b* being round in cross section and adapted to make a round hole in the fabric, while the opposite end *b'* is flat and adapted to make an elongated opening in the fabric.

c is a small interiorly screw threaded bore

arranged in the body of the piercer B and in this bore is a set screw C by means of which the piercer is adjusted inside of the cylinder A. By inserting the piercer B into the bore of the cylinder A and tightening this screw the piercer is adjusted to the position wanted and securely held. By slightly loosening the set screw the piercer may be moved in the cylinder, but cannot be displaced on account of the shoulder *a* which will not allow the head of the screw to pass over it until it is further unscrewed for that purpose. When it is desired to use the opposite end of the piercer the user removes the piercer from the cylinder by loosening the set screw sufficiently to pass over the shoulder *a* and out of the elongated slot *a'* when the piercer may be reversed and the opposite end exposed as shown in Fig. 3. By adjusting the screw along the slot *a'* the point to be used may be extended as much or as little as desired below the shoulder *a*, said shoulder *a* acting as a gage in the use of the device.

C' is the fabric which the piercer is perforating, Figs. 1 and 2 illustrating the round point of the piercer adjusted to extend through the fabric a portion of its length, and Fig. 3 with the flat point of the piercer being used.

When not in use the set screw C is loosened, the piercer is moved entirely inside of the cylinder or shield A and the screw tightened to hold it in position, when both points are protected and the instrument occupies much smaller space than those heretofore used.

Referring to Fig. 5 which is a modified form of construction, the cylinder D is open at both ends and is provided with an elongated opening *d* extending nearly to each end of the cylinder. The piercer B and adjusting screw C is the same as that heretofore described. In this form the piercer does not need to be removed from the cylinder to reverse the point, but simply loosen the set screw C and move it toward one end or the other to expose the point it is desired to use. When not in use the screw is secured mediate of the length of the cylinder and both points of the piercer will be inside of the cylinder.

I claim:—

1. In an embroidery piercer, the combination of a cylinder having an open end and also provided with an elongated slot extend-

ing through the open end thereof, an outwardly-extending circumferential shoulder surrounding the open end of said cylinder, a double-pointed reversible piercer adjustable inside of said cylinder, and means movable radially, of said cylinder for locking the piercer in adjusted position; said locking means adapted to abut against said shoulder for preventing removal of the piercer from the cylinder.

2. In an embroidery piercer, the combination of a cylinder having an elongated slot therein, a shoulder surrounding one end of said cylinder, a double-pointed piercer movable in said cylinder, and piercer-locking means carried by the piercer and movable radially of the cylinder for securing said piercer, said locking means also movable within and without the plane of said shoulder, said locking means and shoulder forming exit-preventing means for the piercer when said locking means is located within the plane of the shoulder.

3. In an embroidery piercer, the combination of a cylinder having an open end and also provided with an elongated slot extending from said open end thereof, an out-

wardly-extending circumferential shoulder surrounding the open end of said cylinder, a double-pointed piercer, and locking means for adjustably securing the piercer within said cylinder, said locking means cooperating with said shoulder for preventing the removal of the piercer from the cylinder.

4. In an embroidery piercer, the combination of a cylinder having an elongated slot therein, a shoulder surrounding one end of the cylinder, a double-pointed piercer movable in said cylinder, and a locking member movable in and out of alinement with the periphery of the shoulder for adjusting the operating point of said piercer, said locking member and shoulder forming a removal-preventing means for the piercer when said member is located within the plane of the shoulder.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LEON S. LEON.

Witnesses:

WELLS GOODHUE,
F. H. KING.