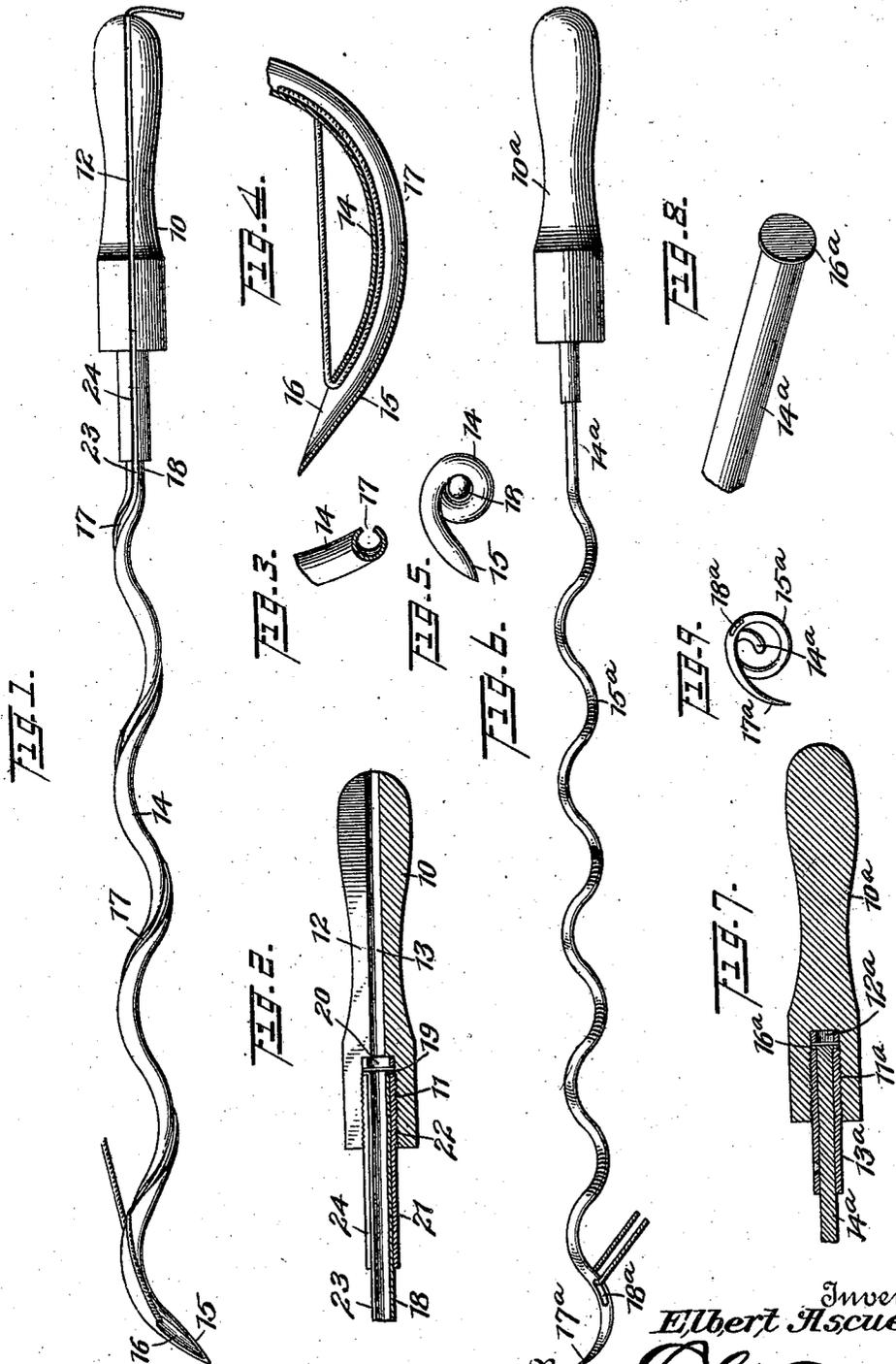


No. 847,452.

PATENTED MAR. 19, 1907.

E. ASCUE.
SEWING DEVICE.
APPLICATION FILED NOV. 29, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

ELBERT ASCUE, OF BLUM, TEXAS, ASSIGNOR OF ONE-THIRD TO R. H. CRANK,
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SEWING DEVICE.

No. 847,452.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed November 29, 1905. Serial No. 289,708.

To all whom it may concern:

Be it known that I, ELBERT ASCUE, a citizen of the United States, residing at Blum, (R. F. D., No. 2,) in the county of Hill and State of Texas, have invented a new and useful Sewing Device, of which the following is a specification.

This invention relates more particularly to means for sewing bags, but is not necessarily limited to this use, as it may be successfully employed for various other purposes.

The principal object is to provide a simple instrument having a helical needle that can be passed through the goods and withdrawn therefrom to form stitches without the necessity of twisting or turning the hand that operates said instrument, thereby providing a sewing device that is exceedingly convenient to use and one that may be operated with comparatively great rapidity.

Two embodiments of the invention are illustrated in the accompanying drawings; but an inspection of the claims will show that said invention is not limited to these disclosures.

In the said drawings, Figure 1 is a side elevation of one embodiment. Fig. 2 is a detail longitudinal sectional view through the handle-grip, showing the mounting of the needle therein. Fig. 3 is a detail sectional view. Fig. 4 is a longitudinal view through the pointed end of the needle. Fig. 5 is an end elevation of the device. Fig. 6 is a side elevation of another embodiment of the invention. Fig. 7 is a longitudinal sectional view through the handle-grip, showing the mounting for the needle. Fig. 8 is a detail perspective view of the rear end of the needle-stem. Fig. 9 is an end elevation of the device illustrated in Fig. 6.

Similar reference-numerals designate corresponding parts in all the figures of the drawings.

Referring first to the embodiment shown in Figs. 1 to 5, a handle-grip 10 is employed, provided in one end with a longitudinal axial bore 11, that terminates short of the other end. A thread-receiving channel 12, formed longitudinally in one side of the handle-grip, communicates with the bore 11 and is preferably provided with an enlarged portion 13 in line with said bore. In connection with the handle-grip there is employed a tubular helical needle 14, the main body of which is

provided with a plurality of whirls or spirals of substantially equal radius. One end of the needle is pointed, as shown at 15, and is disposed on a curve of greater radius than the intermediate whirls. This, it is thought, will be apparent by reference to Fig. 5. The pointed end is open, forming an eye 16, and the needle has a longitudinally-disposed channel 17, communicating with the hollow interior of said needle and terminating short of the opening or eye 16, as shown in Fig. 4.

The rear end of the needle is provided with an axial hollow stem 18, which is journaled in the bore 11 of the handle, said stem terminating at its inner end in an annular enlargement 19, that operates against a thrust-bearing 20, located at the inner end of the bore, said thrust-bearing being in the form of a split ring. A sleeve 21 is threaded, as shown at 22, into the bore 11, with its inner end opposed to the enlargement 19 of the stem 18 and forming a draft-bearing. This sleeve projects beyond the handle-grip and constitutes an elongated journal-bearing for the stem. The said stem has a continuation 23 of the channel 17 of the needle, and the sleeve 21 is also provided with a longitudinally-disposed channel 24, arranged in alignment with the channel 12 of the grip. The channel portion 23 of the needle thus moves into and out of alignment with the channels 12 and 24 upon the rotation of the needle.

The needle may be used in a variety of ways, either with separate short threads or with a continuous thread fed from a ball or spool. The needle is threaded by passing the twine or thread through the channel contiguous to the point and then pulling the end of said thread through the eye, leaving the free end outside the needle. The main line of thread or twine is then introduced into the needle by passing it through the channel, and said line is then extended through the handle. While the device can be employed for sewing either with a double or single thread, in employing the latter the free end is drawn through the eye until a length is exposed that is a little longer than the width of the sack to be sewed. The needle is forced through the material by a steady longitudinal pressure upon the handle-grip which is held against rotation. The whirls or spiral configuration of the needle causes the same to turn through the material and rotate in

the handle-grip, thus forming the stitches. The enlarged or offset portion is important, as it gathers up the cloth and properly feeds it to the whirls in rear of the same. The elongated journal-bearing for the stem of the needle serves to prevent the lateral movement of the stem, so that the hand employed for pushing the needle through the goods can properly direct said needle. When the needle is entering or passing through the material being sewed, its rear end will of course be rotating against the thrust-bearing 20, and when said needle is being withdrawn the enlargement 19 is then rotating against the draft-bearing, or, in other words, the inner end of the sleeve 21. These various bearings are preferably made of hard metal, so that they will not be subject to excessive wear. Consequently it will be apparent that the device will be durable. Furthermore, no particular skill is necessary in operating the same, for the direct thrust and pull upon the handle is all that is necessary to cause the needle to enter and be withdrawn from the goods and at the same time form the necessary stitches. It will also be evident that the size and number of whirls or spirals in the needle may be varied as desired without in any manner affecting the invention.

A still simpler embodiment is illustrated in Figs. 6 to 9, inclusive. In this case a handle-grip 10^a is employed having an axial bore 11^a in one end. A thrust-bearing 12^a is fitted in the inner end of the bore, and a combined retaining sleeve and bearing 13^a is screwed into the outer portion of the bore and projects beyond the same. In this sleeve is journaled the axial stem 14^a of a solid helical needle 15^a, having an enlarged inner bearing 16^a, interposed between the adjacent ends of the bearing 12^a and sleeve 13^a. The outer end of the helical needle is pointed, as shown at 17^a, and said end, as illustrated in Fig. 9, is disposed on a curve of greater radius than the main whirls of the needle. An eye 18^a is formed in said outer end and is arranged to receive the thread or twine. The only difference between this structure and that already described is that the needle is solid, and consequently the thread or twine is entirely exposed. The manner of use is, however, the same as that already disclosed, and no further description thereof is believed to be necessary. The embodiment shown in the first five figures is perhaps preferable in that the main line of twine being inclosed by the needle is protected from chaffing and wear during its passage through the material.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape,

proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a sewing device of the character described, the combination with an operating-handle grip, of a helical needle having a portion journaled in and surrounded by the grip.
2. In a sewing device of the character described, the combination with an operating-handle, of a helical needle having its rear end journaled in and surrounded by the handle, and thrust and draft bearings carried by the handle and engaged by the needle upon the longitudinal movement thereof in opposite directions.
3. In a sewing device of the character described, the combination with an operating-handle, of a helical needle having an enlarged bearing portion journaled in the handle, and thrust and draft bearings carried by the handle and located on opposite sides of the bearing portion of the needle.
4. In a sewing device of the character described, the combination with an operating-handle grip, of a helical needle having a straight rear end rotatably journaled in the handle-grip and extending longitudinally thereof, said grip and needle having substantially coincident axes.
5. In a sewing device of the character described, the combination with an operating-handle grip having a bore, of a helical needle having an axial stem at one end that is journaled in the bore, and a combined retaining device and bearing carried by the handle-grip and engaged by the needle-stem.
6. In a sewing device of the character described, the combination with an operating-handle grip having a bore, of a helical needle having an axial stem at one end that is journaled in the bore, and a combined bearing and retaining sleeve fitted in the bore and surrounding the stem.
7. In a sewing device of the character described, the combination with an operating-handle grip having a substantially axial bore, of a helical needle having an axial stem at one end that is journaled in the bore, said stem having an enlargement, and a combined bearing and retaining sleeve fitted in the bore and surrounding the stem, the enlargement of said stem bearing against the sleeve.
8. In a sewing device of the character described, the combination with an operating-handle grip having a substantially axial bore, of a helical needle having an axial stem at one end that is journaled in the bore and is provided with a bearing enlargement, the other end of the needle being pointed and provided with an eye and being furthermore dis-

posed on a curve of greater radius than the main portion of the needle, and a combined bearing and retaining sleeve fitted in the outer portion of the bore and outside the enlargement of the needle-stem, said sleeve projecting beyond the grip and constituting a journal-bearing for the needle.

9. In a sewing device of the character described, a tubular helical needle having an open-pointed end, and a longitudinal channel opening through one side of its end and terminating short of said open end.

10. In a sewing device of the character described, the combination with a handle-grip having a thread-receiving channel, of a helical needle rotatably mounted on the grip and having a channel that moves into and out of alinement with the handle-grip channel.

11. In a sewing device of the character described, the combination with a handle-grip having an axial bore and a longitudinal thread-receiving channel communicating therewith, of a tubular helical needle rotatably mounted on the grip and having a longitudinal channel that moves into and out of alinement with the handle-grip channel, and a retaining-sleeve fitted in the bore of the handle-grip and surrounding the needle, said

sleeve also having a longitudinal channel with which the needle-channel moves into and out of alinement.

12. In a sewing device of the character described, the combination with a handle-grip having a substantially axial bore and a longitudinal thread-receiving channel, of a retaining-sleeve fitted in the bore and projecting beyond one end of the grip, said sleeve having a longitudinal channel alined with the channel of the grip, and a tubular helical needle having a hollow stem at one end that is rotatably journaled in the sleeve, said needle having a pointed open free end disposed on a curve of greater diameter than the main body of the needle, said needle furthermore having a longitudinal channel terminating short of the pointed end of and movable into and out of alinement with the sleeve-channel upon the rotation of the needle.

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

ELBERT ASCUE.

Witnesses:

O. L. BISHOP,
E. A. RICE.