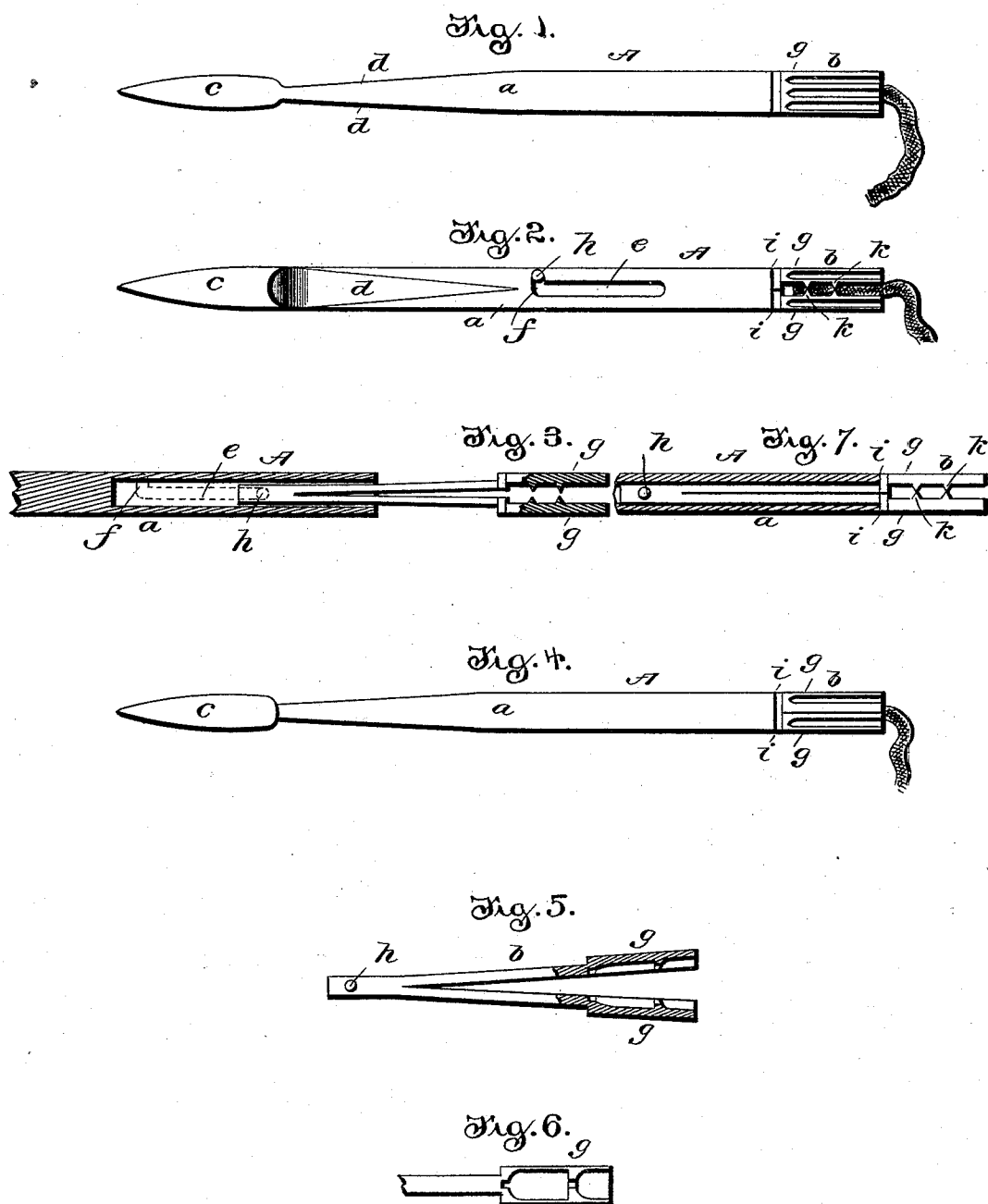


(No Model.)

B. F. CURRAN.
BELT LACING NEEDLE.

No. 405,536.

Patented June 18, 1889.



Witnesses:
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UNITED STATES PATENT OFFICE.

BENJAMIN F. CURRAN, OF DUNKIRK, OHIO.

BELT-LACING NEEDLE.

SPECIFICATION forming part of Letters Patent No. 405,536, dated June 18, 1889.

Application filed March 28, 1889. Serial No. 305,144. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CURRAN, a citizen of the United States, residing at Dunkirk, in the county of Hardin and State of Ohio, have invented certain new and useful Improvements in Lacing-Needles; 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 has relation to improvements in lacing-points for needles to be used in lacing the ends of belts and the like, and the novelty will be fully understood from the following description and claims when taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation of my improved lacing device. Fig. 2 is a similar view taken in a plane relatively at right angles to Fig. 1, so as to illustrate the means for locking the two sections. Fig. 3 is a longitudinal sectional view showing the two parts extended in a position to receive the rawhide or lacing-cord and the point portion of the forward section broken away. Fig. 4 is a side elevation of a modification. Fig. 5 is a side elevation, partly in section, of the rear clamping-section removed. Fig. 6 is a detail view of one of the spring-jaws; and Fig. 7 is a sectional view of the forward or point section, with the clamping-section shown in elevation therein.

Referring by letter to the said drawings, A indicates my improved needle or lacing-point. This needle consists of two sections—a forward hollow or tubular section *a* and a rear clamping or holder section *b*. The forward or point section *a* is reduced at its forward end, as shown, and has a swell or enlarged portion *c*, at the inner end of which is a flattened portion *d*. At the base of this swell the flattened portions are preferably formed at opposite sides, so as to facilitate the drawing of the same in lacing and facilitate the turning in applying and removing the lacing-cord. This forward section is provided at a suitable point in its hollow or tubular portion with a longitudinal slot *e*, having at its forward end an offset-slot *f*, so as to form what may be termed a bayonet-slot, and which is

adapted to receive a stud or lug on the holder-section, as will be presently explained.

The rear holding or clamping section *b* is composed of two spring or clamping jaws *g*. This rear section is preferably composed of a single piece of spring-steel slitted for a sufficient distance of its length, so as to form the two branches which terminate in the clamping-jaws, and the said section is designed to enter the tubular portion of the section *a*, and carries a stud or lug *h* near its forward end, which travels in the slot *e* of the tubular portion of the section *a*, and may be moved into the offset *f* thereof. These spring-branches formed from the rear section *b* may have an external shoulder near their rear ends, as shown at *i*, to abut against the rear end of the section *a* when the said clamping-section has been inserted to its fullest extent, and serves as a means of notification that the section should be turned to lock them. The rear ends of these spring-jaws *g* are adapted to receive between them the attaching portions of the lace or rawhide. These engaging portions or inner walls of the jaws have an interspace formed between them to receive the end of the lace or cord, and are provided with teeth *k* to bite upon the said lace and firmly hold it.

In Figs. 1 and 2 of the drawings I have illustrated the jaws as being flat on their inner sides and armed with teeth, while in the modification I have shown the inner sides of the jaws as circularly recessed and the teeth formed in the recesses thereof. In this latter construction it is necessary in applying the lace or rawhide to first cut it down or taper it, so that it may fit within the recesses of the jaws, while in the main construction the end of the lace may be placed within the jaws in its normal position and the obstructing edges cut away or tapered after it has been secured.

From the foregoing description, taken in connection with the annexed drawings, the operation and advantages of my invention will be obvious; and it will be seen that the needle or point may be manufactured at a very small expense and used by any inexperienced person.

Having described my invention, what I claim is—

1. A lacing-needle, comprising a hollow-pointed section having a bayonet-slot formed longitudinally therein and its sides reduced in rear of its point portion, and a sliding section composed of two spring clamping-jaws, adapted to move in the hollow section and carrying a stud to move in the bayonet-slot, and having its rear end formed with teeth and adapted to receive between them a lacing-cord, substantially as specified.
2. In a lacing-needle, the combination, with a pointed hollow section having a bayonet-

slot formed therein, of a section formed with two spring-jaws adapted to slide in the hollow section and carrying a stud traveling in the said bayonet-slot, the jaws being adapted to receive a lacing-cord, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN F. CURRAN.

Witnesses:

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