(No Model.)

H. ROYER.

Needle for Belt Lacing.

No. 237,908. **Patented Feb. 15, 1881.**

Fig. 1.

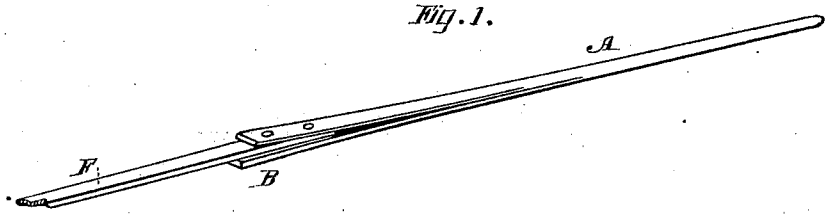


Fig. 2.

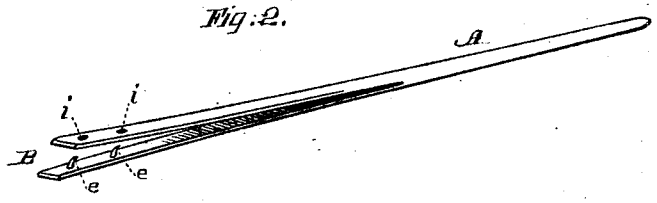


Fig. 3.

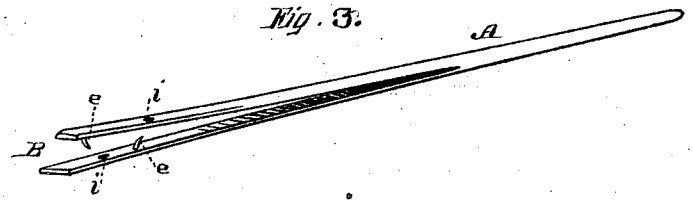
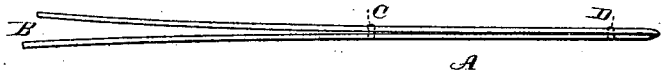


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

HERMAN ROYER, OF SAN FRANCISCO, CALIFORNIA.

NEEDLE FOR BELT-LACING.

SPECIFICATION forming part of Letters Patent No. 237,908, dated February 15, 1881.

Application filed August 9, 1880. (No model.)

To all whom it may concern:

Be it known that I, HERMAN ROYER, of the city and county of San Francisco and State of California, have invented a Needle for Belt-Lacing; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a novel device by which the rawhide thong or threads or other material which is used to connect the ends of belts is drawn and laced through the holes or eyelets prepared for its reception, causing the belts to be secured with greater facility than has hitherto been attained.

In the accompanying drawings, Figures 1, 2, 3, and 4 are views of my needle.

My invention consists of a rigid bar, A, of metal, of any convenient length, tapering from the head to the point, which may be sharp or rounded, as desired. It is made of one piece of metal, having its larger or head end split to such a distance toward the point as will give to it sufficient elasticity, as shown at B; or it may be made of two distinct pieces of metal corresponding in shape, so as to fit closely and be riveted together at C D toward the head, to give sufficient elasticity to hold the end of the lacing or thong between them. At the split end one or more sharp projections, *e*, are firmly inserted in one of the sides, of such a length as to take firm hold of the cord or thong placed upon them, and having a slight inclination toward the point, for the purpose of holding more firmly and supporting the cord or thong, which, by the resistance in its passage, pulls in the opposite direction. If desired similar points may be inserted on both sides. Opposite these points holes *i i* are made, wherein these projections, after passing through the thong, fit, thereby adding to their own strength the support of the opposite side.

The manner in which I use the needle is as follows: I separate the head ends sufficiently to introduce the cord or thong, the end of which I place upon the projections, which will impale the cord or thong F and hold it firmly. The projections are forced through the cord or thong and fit their points into the holes prepared as above described. The thong is thus neatly and effectually held by the needle with only a single thickness to be drawn through.

This device is of great value for lacing belting, and for drawing cords or thongs through holes prepared for the purpose without folding the thong, so as to present more than one thickness for resistance when it is drawn through.

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

A lacing-needle having elastic sides and holding-points, and provided with holes placed opposite said holding-points.

In witness whereof I have hereunto set my hand.

HERMAN ROYER.

Witnesses:

S. H. NOURSE,

FRANK A. BROOKS.