WILLIAM BUTTERFIELD.

Improvement in Rivets.

No. 115,432. Patented May 30, 1871.

Fig. 1.

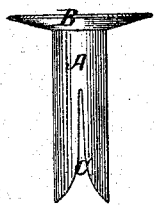

Fig. 2.

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM BUTTERFIELD, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND CHARLES E. WOODMAN, OF SAME PLACE.

IMPROVEMENT IN RIVETS.

Specification forming part of Letters Patent No. 115,432, dated May 30, 1871.

I, WILLIAM BUTTERFIELD, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Rivets, of which the following is a specification:

Figure 1 is a side elevation of my invention; Fig. 2 is a view of the same in use; and Fig. 3, a similar view in the process of heading or clinching.

The object of my invention is to produce a rivet which can be headed without the use of a bur, being adapted more particularly to the manufacture of shoes and other light articles, where the time required and the expense of setting rivets with burs render them unavailable in such manufacture. My invention consists of a rivet having a head and shank like the ordinary kind, the shank, however, being provided with a slit extending from the point nearly to the head, the mouth of the slit being enlarged by the rounding of the inner sides, so as to present two sharp edges at the point of the rivet, as will hereinafter more fully appear.

In the drawing, A represents the shank of the rivet, which is provided with the head B. C represents a slot in the shank A, which slot extends from the point of the same a suitable distance toward the head thereof, dividing the same lengthwise, and tapering outwardly at the mouth in such manner as to leave the ends of the shank A pointed, as shown in Fig. 1.

Operation.

The rivet is inserted in the leather or other material in the usual manner, and headed by blows on the pointed ends of shank A, the blows separating the parts of the shank in opposite directions, the two sides rolling or curving over, as shown in Fig. 3, until they clinch into the surface of the material D, the points, owing to their rounded shape, turning inwardly and entering the material D, as shown in Fig. 2, thus securely fastening the rivet.

It is the rounded shape of the inner sides of the points which, under percussion, secures the perfect rolling over of the points; no other shape would secure this end, the reason being obvious.

When this rivet is headed down—that is, the points rolled over—there are no jagged or frayed edges, as will be found in using the ordinary rivet, which renders it unfit for the manufacture of shoes and various other articles, while my rivet presents a smooth and perfect head without bur, and free from broken edges, by reason of which I obtain the entire strength of the rivet, for the points roll over so evenly that their strength is not impaired.

This rivet can be manufactured by machinery at slight cost, while its simplicity, convenience, and strength establish its superiority over other rivets.

As great an advantage as any is that this rivet can be readily set by machinery as easily as an eyelet. This is an advantage that has been aimed at by many inventors, but not before reached to any desirable degree of perfection.

Either the cost of the manufacture of the rivets or their construction has rendered them useless in this connection.

The shank A may be provided with two slots, C, at right angles and intersecting each other, thus dividing it into four portions instead of two. The effect in either case is the same, a square blow on the points rolling them over evenly.

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

The rivet described, having the slotted shank A, the slot dividing the shank into rounded and pointed sections, substantially as described.

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

WILLIAM BUTTERFIELD.

Witnesses:

CARROLL D. WRIGHT,

C. E. WOODMAN.