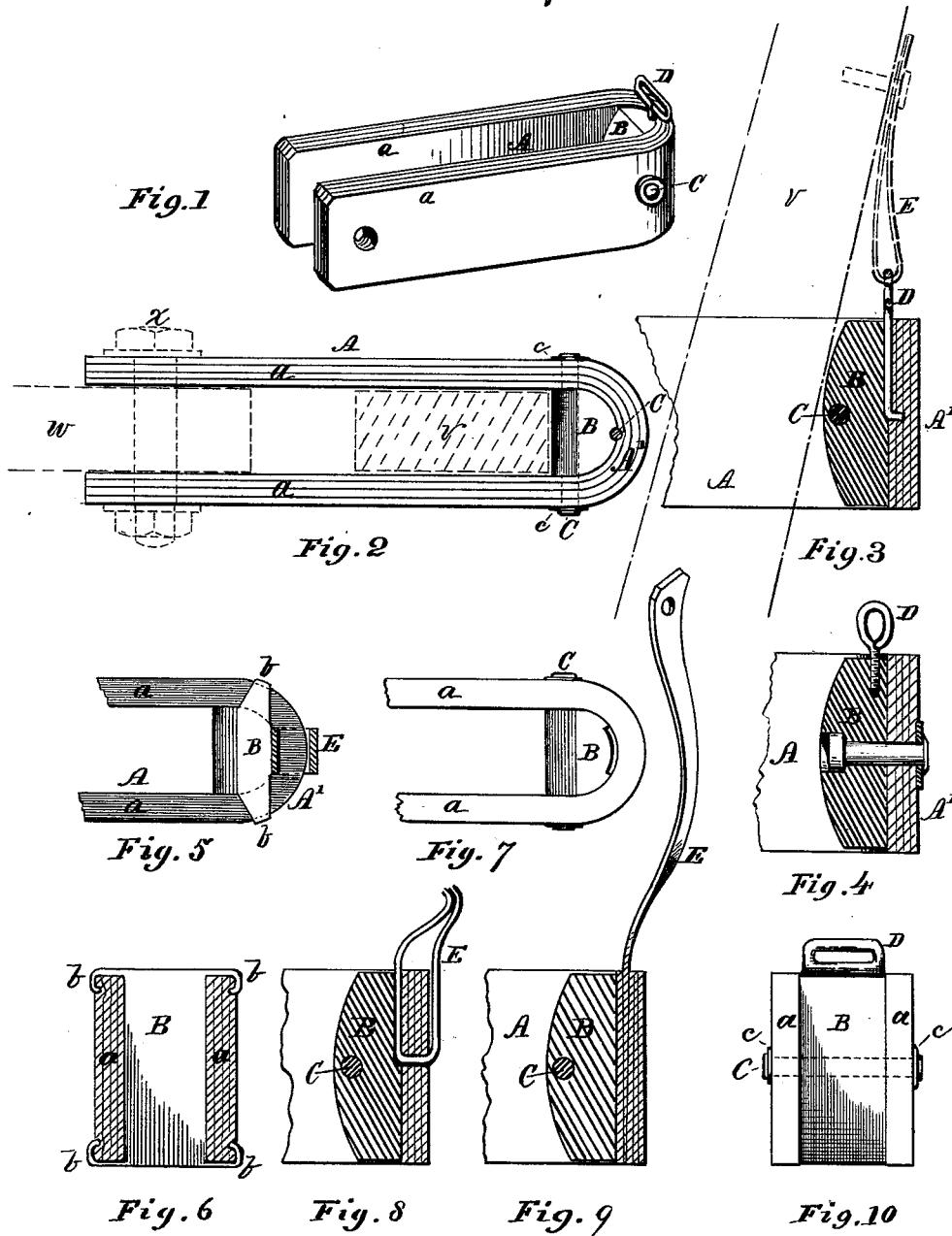


E. S. STONE.
 Picker-Staff Strap for Looms.

No. 202,675.

Patented April 23, 1878.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN PICKER-STAFF STRAPS FOR LOOMS.

Specification forming part of Letters Patent No. **202,675**, dated April 23, 1878; application filed January 21, 1878.

To all whom it may concern:

Be it known that I, EDWARD S. STONE, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Picker-Staff Straps for Looms; and I declare the following to be a description of my said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a perspective view of my improved picker-staff strap. Fig. 2 is a plan view of the same; Fig. 3, a vertical central section through the head of the strap; and Figs. 4, 5, 6, 7, 8, 9, and 10 illustrate modifications in construction of the re-enforce and supporting loop or band.

The object of my invention is to provide a serviceable strap for the connection of picker-staffs to their operating mechanism; and my invention consists in the improved picker-staff strap, constructed substantially as hereinafter described, and pointed out in the claims.

In the drawing, A denotes the strap, made with a loop or bend, A', at the head, and with parallel returned sides *a a*, between which the picker-staff *v* is retained, the extremities being fastened to the operating-bar *w* by a bolt, *x*, or otherwise, in the ordinary manner. B indicates a metal bearing-block or re-enforce, fitted to the inner side of the bent or looped portion A', and secured firmly in position by a bolt, pin, or rivet, C, passing through the parts laterally, in the manner shown. The face of the re-enforce block B is made straight laterally, and with a convex curve vertically. Said block forms the bearing-surface against the edge of the picker-staff *v*, thus preventing the corners of the staff wearing into the strap, while it distributes the strain and shock of the picking action equally to the sides *a a*, at whatever position the contact of the staff and curved face occurs.

D indicates a wire loop let into the upper part of the strap-head between the leather and re-enforce, or otherwise secured thereto. Said loop serves to receive the band E, by which strap A is retained at proper position on the picker-staff. (See dotted lines, Fig. 3.)

These straps, which are manufactured and sold as a separate article of merchandise to replace those worn out in use, I make from remnants or pieces of old card-clothing leather from which the teeth have been extracted, or of similar waste material. Several pieces of the leather, sufficient to give the requisite size, strength, and thickness, are cemented together, and then crimped in a suitable pressing form, to impart the proper shape and hold the pieces together until the cementing material becomes set, after which the re-enforce or block B is forced to position by pressing mechanism, and the bolt or rivet C is inserted and headed down upon its washers *c*. This firmly clamps the loop A' around the back of the re-enforce block B, and retains the sides *a a* from spreading apart and straining the cement while transporting or handling previous to applying the straps to use.

If desired, new stock may be used in making the straps A; but by the employment of waste material, re-enforced and crimped as above specified, I produce a strap of equal utility at about one-half the cost of one made from new stock.

As modifications in the manner of attaching the supporting-band E, the loop D may be screwed into or cast with the block B, (see Figs. 4 and 10;) or the loop may be secured as a bail to the ends of the bolt or rivet C outside the strap A; or, again, the block B may be recessed to permit of the band E being passed around or through the loop A'. (See Figs. 5, 7, and 8.) The band E may, if desired, be cemented into the head A' of the strap A, as in Fig. 9. The method shown in Figs. 1 and 3 is, however, considered preferable.

If desired, the re-enforce B may be formed of malleable iron, with projections *b b* at bottom and top, and be secured to the strap by clinching said projections *b* over the edges of the looped portion A', as illustrated in Figs. 5 and 6. Attachment may also be made by passing the bolt or rivet through the back, as in Fig. 4.

Having described my improved picker-staff strap, what I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. A picker-staff strap for looms, provided

with a bearing-block or re-enforce fitted within the back or looped portion of the strap which surrounds the picker-staff, and against which the picker-staff works, substantially as and for the purpose set forth.

2. The improved picker-staff strap, consisting of the leather portion A, having a metallic re-enforce block, B, at the inner side of its loop A', substantially as described.

3. In combination, the strap A, re-enforce B, bolt or rivet C, and suspension-loop E, substantially as and for the purposes set forth.

4. A picker-staff strap made from remnants, waste-scrap, or pieces of old card-clothing leather, cemented together, crimped into proper form, and secured around a metal re-enforce piece or bearing-block, in the manner substantially as hereinbefore described.

Witness my hand this 18th day of January, A. D. 1878.

EDWARD S. STONE.

Witnesses:

CHAS. H. BURLEIGH,
S. E. BARTON.