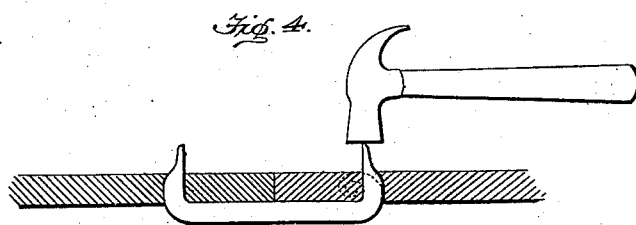
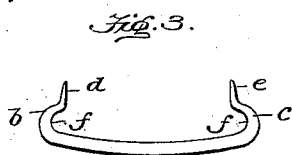
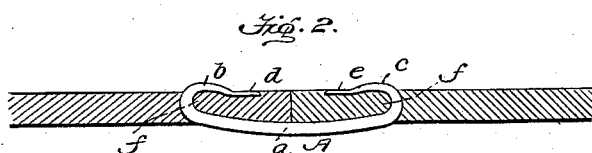
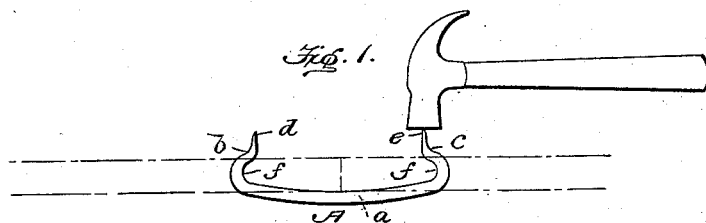


(No Model.)

H. H. JONES.
BELT FASTENER.

No. 553.243.

Patented Jan. 21, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

HARRY H. JONES, OF LANCASTER, NEW HAMPSHIRE.

BELT-FASTENER.

SPECIFICATION forming part of Letters Patent No. 553,243, dated January 21, 1896.

Application filed July 19, 1893. Serial No. 480,944. (No model.)

To all whom it may concern:

Be it known that I, HARRY H. JONES, a citizen of the United States, residing at Lancaster, in the county of Coos and State of New Hampshire, have invented certain new and useful Improvements in Belt-Fasteners; and I do hereby 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.

My present invention is an improvement in that class of belt-fasteners generally used on short light belts, which employ a long bar provided with clinching-prongs that are passed through the belt and forced or pressed into the same. It has been the common practice to construct belt-fasteners of this class with tapered prongs which stand throughout their length at right angles to the line of the horizontal body or bar, and such fasteners have also been constructed with hook-shaped prongs which are curved backward over the longitudinal bar or body of the fastener. Devices of the latter class have their hook-shaped ends terminating on a line parallel with the longitudinal bar, and these hooks are difficult of insertion into the belt. Fasteners of the former class, an example of which is shown in United States Letters Patent issued to Benjamin Hogan on June 6, 1882, No. 259,015, which have their prongs standing at right angles to the shank or body, are clinched by striking the pointed extremities with a hammer or similar implement; but practical experience has demonstrated that such prongs first bend at the upper thinner extremities thereof and they are curled or bent over in curved lines into the belt. While this manner of clinching the prongs affords a reasonably safe method of fastening the belt, it is open to the objection that the fastener cannot be moved without serious injury to the belt, the total destruction of the fastener, and without considerable effort and time because the curved thin ends of the prongs penetrate well into the belt.

The object of my present invention is to produce a fastener which has its prongs so constructed that they will bend first at their bases when struck by a hammer or implement instead of at their upper thin extremities and which will thus obviate the thin ends from

being forced into the belt, as said extremities will lie upon or be sunk slightly into the surface of the belt, whereby the fastener can be pried out or removed with comparative ease without injury to the belt and in many instances to the fastener itself, and a smoother and neater joint is produced at the meeting ends of the belt.

To the accomplishment of these ends, my improvements contemplate bending the ends of the longitudinal bar or body to produce a recess or notch between the base of the tapered extremity and the body, the depth of such recess or notch approximating the thickness of the belt to which the fastener is to be applied. The tapered extremity of the prong, above the notch or groove, stands at right angles to the line of the bar or body, to facilitate the introduction of the prong through the hole in the belt, and when the prong is passed through the belt the latter is received in the notch or recess of the fastener and the tapered extremity of the prong is struck by a hammer or other implement, whereupon the tapered end bends first at the base thereof and is then forced over upon the belt instead of being curved or curled and forced well into the fibers of the belt.

The invention further consists of the peculiar construction of the fastener as will be hereinafter more fully described and pointed out in the claim.

To enable others to more readily understand my improvement, I have shown the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a view illustrating the position of the fastener when placed in the belt before the tapered end of the prong has been bent, the dotted lines showing the tapered end partially bent down. Fig. 2 is a view showing the fastener applied to the belt. Fig. 3 is a detail view, in side elevation, of one of my fasteners detached from the belt. Fig. 4 is a view illustrating the manner of clinching one of the old-style fasteners, the dotted lines representing the position assumed by the prong after it has been bent.

Like letters of reference denote like parts in the several figures of the drawings.

My fastener is represented at A in Figs. 1,

2, and 3 of the drawings, and it consists of the longitudinal bar or body *a*, the necks *b c*, and the prongs *d e*, all bent or formed from a single piece of bar metal. The improvement consists in so bending or curving the necks *b c* as to form the recess or grooves *f* between the base of the prongs *d e* and the bar or body *a*, the depths of the grooves or recesses approximating the thickness of the belt to which the fastener is applied.

In the manufacture of my fastener I take a piece of bar or rod metal of the proper length and appropriate cross-sectional form and bend each end around a suitable mandrel or other machine to form the curved necks *b c*, which stand upward from the body or bar *a* and provide the recesses or grooves, and then the prongs *d e* are formed by bending the extremities of the metal so they lie at right angles to the length of the bar or body *a*. These prongs *d e* are tapered or reduced in thickness from their bases toward the outer free extremities for the purpose of easily bending and clinching the prongs. The recessed parts of the fastener are nicely rounded by machinery and they are made of the best shape to stand the strain of the belt when it is in use.

To apply my fastener to a belt, one of the tapered prongs is passed through one end of the belt, so that the thickness of the latter is received in the recess *f* while the prong stands above the face of the belt, and this tapered prong is struck by a hammer or other implement. As the base or stiffer part of the prong is at a right angle, or nearly so, to the blow when it is delivered directly down upon the point, and as this part of the prong is recessed and hence not rigidly supported, as in prior fasteners, the prong bends at the base, and by repeated blows of the implement the prong is bent over to lie flat upon and somewhat sunk into the face of the belt. The other end of

the fastener is forced into and clinched upon the other end of the belt in a similar manner, and when the proper number of fasteners have been applied the ends of the belt are securely joined together and the fasteners make a neat smooth joint to enable the belt to pass easily around small pulleys.

To enable my improvement to be readily distinguished from the prior devices, I have shown by Fig. 4 the common method of clinching a fastener having its prongs standing throughout their length in a straight line at right angles to the bar or body. By reference to this figure (4) it will be noted that the thin ends of the prongs are first bent by the blows from a hammer and that the prongs are curved over and forced well into the belt.

The action of my fastener during the process of clinching is the reverse of the common fastener in that the prongs *d e* bend first at their bases and lie squarely upon the belt in contradistinction to a prong which bends first at its upper extremity and then curls over into the belt, as will be readily understood.

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

A belt fastener made from a length or bar of metal which has its ends curved upward and inward, forming recesses *f, f*, and then extending outwardly, forming the clinchable prongs *d, e*, said prongs lying in planes within the extremities of the bar to which said prongs are joined by offset necks *b, c*, substantially as and for the purposes described.

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

HARRY H. JONES.

Witnesses:

EVERETT FLETCHER,
W. H. BECKWITH.