

(No Model.)

J. A. BOWLER  
BOX STRAP.

No. 522,875.

Patented July 10, 1894.

Fig. 1

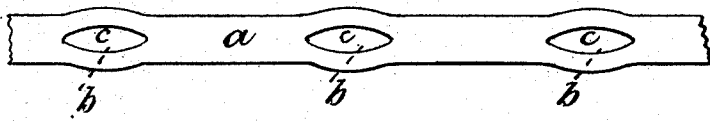


Fig. 2



Fig. 3

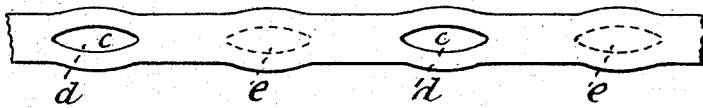


Fig. 4



Fig. 5

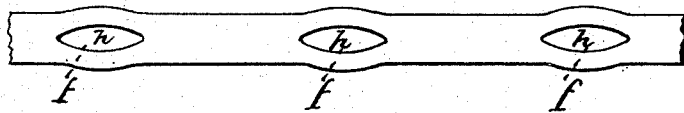


Fig. 6



Witnesses.

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C. H. Mitchell

Inventor.

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# UNITED STATES PATENT OFFICE.

JOHN A. BOWLER, OF NEW YORK, N. Y.

## BOX-STRAP.

SPECIFICATION forming part of Letters Patent No. 522,875, dated July 10, 1894.

Application filed May 20, 1892. Serial No. 433,781. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. BOWLER, a citizen of the United States, and a resident of New York, county and State of New York, have invented a new and useful Improvement in Box-Straps, of which the following is a specification.

This invention has for its object, the production of a box strap having practically uniformity of metal throughout its length with equal strength at the parts where the nails are driven through it, as at the solid parts; of less width than the ordinary metal band box straps; so prepared as to admit of the holding nails being driven through it without previously puncturing the nail holes; and possessing perfectly smooth edges and surfaces so that it can be freely handled without danger of injury to the hands of those whose business calls for the handling of it or of boxes bound with it. To this end I make a flat band of suitable iron or steel much narrower and considerably thicker than the ordinary flat metal band of equal strength, and in this band, at suitable intervals, form, by means of suitable tools, depressions, recesses or indentations which are elongated in direction longitudinally in the strap. These depressions extend nearly through the strap, merely leaving thin webs at the bottoms thereof, without disturbing the uniform flatness of the under side of the strap; the metal which is displaced by the formation of these indentations being forced out laterally on both sides without increasing the thickness but increasing the width of the strap at these parts.

The invention embraces modifications of this general construction of my improved strap which will be given hereinafter.

Figure 1 represents part of a box strap, made according to my invention, showing the depressions or indentations formed in one side of it. Fig. 2 is a transverse section of the same through one of the indentations. Fig. 3 shows part of a strap with the indentations formed alternately in the two sides of it. Fig. 4 is a transverse section of the same. Fig. 5 shows the indentations formed in both sides but opposite one another, leaving the thin web in the central part of the strap, and Fig. 6 is a transverse section of the same through one of the indentations.

The dimensions of these box straps are somewhat exaggerated in the drawings to more clearly show their constructions.

The band of metal *a* which in practice, for general use will be about one-quarter of an inch wide, may be made by any of the well known methods, but preferably by flattening a round wire of suitable gage, as by this method the edges will be somewhat rounded and perfectly smooth.

The recesses or indentations *b, b*, are formed by pressing punches of the desired shape in one face of the band, but not entirely through it, so that the metal is in no wise broken to leave or form fins or feather edges to be a source of annoyance or danger to those using the strap.

The web *c* is sufficiently thin to give way readily to the point of the nail driven through it. The burr edge of the nail hole, being forced into the wood when the nail is driven home, assists in holding the strap in position. The nail heads enter the recesses or indentations and are thus protected.

Some of the indentations *d d* are formed in the strap shown in Figs. 3 and 4, on the opposite side to the indentations *e e*, said indentations *d d* and *e e* being equally spaced but alternately formed in the body of the metal. The object of this construction is to make the strap reversible, so that it is immaterial which side is placed upwardly to receive the nails. Another way by which this object may be attained is shown in Figs. 5 and 6, in which indentations *f, g*, are formed in the two sides directly opposite each other, leaving the thin web *h* as a bottom, common to them both, in the central part of the strap. The indentations in this form of strap, as well as in the others, may be made by suitably formed rollers as is well understood by those familiar with the rolling of metals.

The indentations are, in all of the views shown oval in form, but this may be departed from, no particularity of form being necessary to the strap performing the desired function when under the influence of the driving of the nails, the essential feature being that the indentations, at their central parts, be wide enough to allow the free starting of the points of the nails through the webs, and that they be long enough to allow the sides of the

strap to spread laterally without the body of the metal splitting longitudinally.

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

1. A box strap having indentations, for the reception of nails, formed in its two sides thereby making a reversible strap.
2. A box strap consisting of a flat metal band having longitudinally elongated indentations formed in its two sides the bottoms of said indentations being thinner than the body of the strap.
3. A box strap having indentations, for the reception of the nails, formed in its two sides, the indentations in one side being alternately arranged in relation to the indentations in the other side.
4. A box strap composed of a band of metal provided with recesses at intervals throughout its length the bottoms of the recesses be-

ing a web of less thickness than the body of the band and with the edges of the band spread or curved outwardly laterally on the opposite side edges of each recess, substantially as set forth.

5. A box strap composed of a metal band provided with recesses in its face at intervals throughout its length, each recess being elongated in the direction of the length of the strap and the bottom of which is a web of less thickness than the body of the band, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 19th day of May, 1892.

JOHN A. BOWLER.

Witnesses:

C. W. MITCHELL,  
GEO. H. STARRETT.