April 25, 1933. C. B. ALEXANDER 1,906,128

CONNECTER FOR REPAIRING METALLIC MEASURING TAPES

Filed Dec. 11, 1931

Fig. 1.

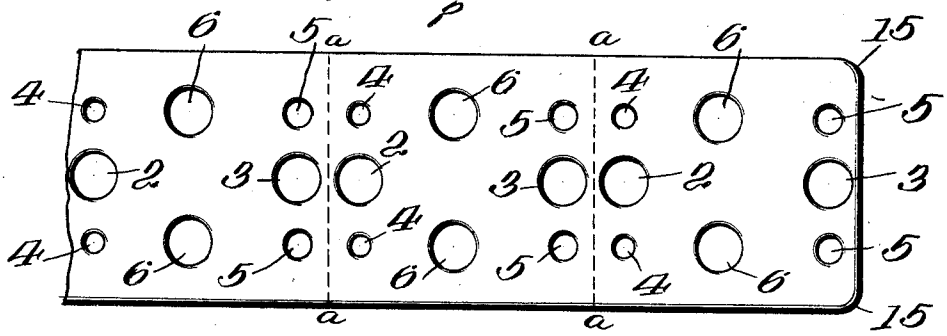


Fig. 2.

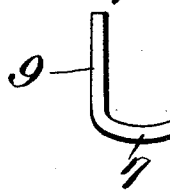


Fig. 3.

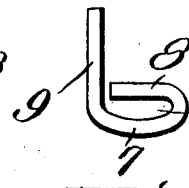


Fig. 4.

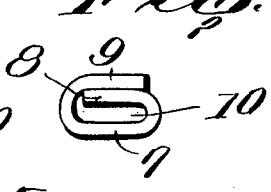


Fig. 5.

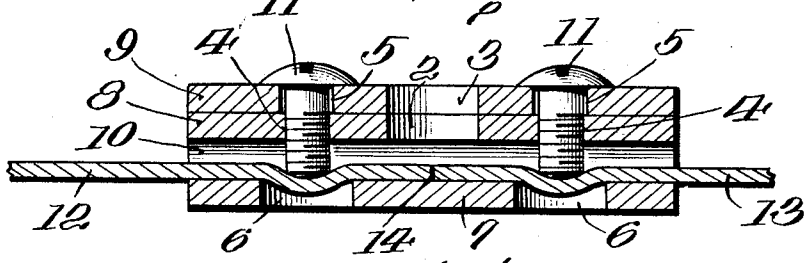
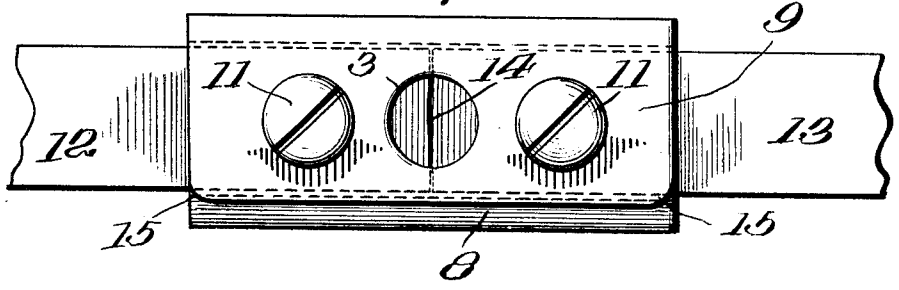


Fig. 6.



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UNITED STATES PATENT OFFICE

CLINTON B. ALEXANDER, OF WASHINGTON, DISTRICT OF COLUMBIA

CONNECTER FOR REPAIRING METALLIC MEASURING TAPES

Application filed December 11, 1931. Serial No. 580,469.

The invention relates to new and useful improvements in a connecter or device for repairing metal measuring tapes. In my Patent No. 721,411, granted February 24, 1903, there is shown a device for repairing metal measuring tapes which includes a sleeve formed from tubing which is flattened and provided with clamping devices for joining the ends of the tape. The present invention is an improvement on the device disclosed in my prior patent, and has for its object to provide a connecter or device of the type shown therein which can be made from a flat metal strip by punching, folding and threading operations.

In the drawing—

Figure 1 is a plan view of a metal strip which has been perforated preparatory to the cutting of the strip into blanks for the forming of my improved connecter;

Fig. 2 is an end view showing the folding of the blank into U-shape;

Fig. 3 is a view showing the further folding of one of the side portions into parallelism with the body portion of the blank, but spaced therefrom so as to receive the ends of the tape;

Fig. 4 is an end view of the final folded blank forming the connecter;

Fig. 5 is a longitudinal sectional view through a connecter as shown applied to a tape for joining the ends thereof, and

Fig. 6 is a top plan view of the parts shown in Fig. 5.

In the carrying out of the invention, the metal strip 1 having the edges thereof rounded, is perforated as shown in Fig. 1 of the drawing. The perforations 2 and 3 are for the purpose of producing a sight opening, so that the ends of the tape may be properly placed relative to each other for clamping. The openings 4, 4 are threaded, while the openings 5, 5 are of slightly larger size and may or may not be threaded. The openings 6, 6 are of still larger size, and are unthreaded. The purpose of these openings will be described later.

A strip is cut along the line *a*—*a*. This forms a blank from which the connecter is made. The connecter is folded into a U-shape, thus providing a body portion 7 with an upstanding side portion 8 and an upstanding side portion 9. The upstanding side portion 9 is of slightly greater height than the upstanding portion 8. This upstanding portion 8 is then folded into substantial parallelism with the body portion 7, but is spaced therefrom to provide a passageway 10 adapted to receive the ends of the tape which are to be connected. The side portion 9 is folded down into a position so as to overlap the side portion 8. When the side portions 8 and 9 are brought into lapped relation, the opening 4 in the side portion 9 at one end thereof is directly over the opening 5 in the side portion 8. The opening 4 in the other end of the side portion 9 is directly over the opening 5 in the side portion 8. Screws 11, 11 are placed through the respective openings 5 and are threaded into the openings 4. The openings 6, 6 are in the main body portion 7 and are directly beneath the opening 5. The opening 6 in the side portion 9 is directly over the opening 6 in the side portion 8.

When a metal tape breaks, it is desired to join the ends of the tape so that the broken ends will abut, thus providing a tape of practically the same length as the tape before it is broken. The section 12 of the tape is placed in the connecter in the passage 10, and the end thereof is caused to contact with and abut against the end of the section 13 directly beneath the sight openings 2 and 3. The meeting ends are indicated at 14. This enables the one who is connecting the broken sections of the tape to see that the ends are properly brought together. The screws 11 are then turned in against the tape, and will indent or bend the tape into the openings 6. These screws are so proportioned that they will firmly clamp the ends of the tape in the connecter and will also firmly join the overlapping side portions of the connecter, thus forming in effect, a tubular connecter or device operating to accomplish all the functions of the tubular connecter of my prior patent.

While I have described the blank as folded into U-shape, after which one side is folded down and then the other, it will be under-

stood that these operations may all be performed in sequence in a single machine. Preferably, the strip is punched, sheared and bent into U-shape in one operation, that is, the operation of one machine. It is then subjected to devices for folding the side portions into lapping relation as shown in Fig. 4. The formed device is then presented to a threading tool for threading the opening 4. The screws are inserted in these threaded openings, and this completes the connecter. The connecter is very simple in construction. Furthermore, connecters for different widths of tape may be made from the same strip of metal. The only change necessary is to vary the length of the blank and the positioning of the perforations therethrough. This greatly lessens the cost of manufacture over the form wherein the connecters are made from specially drawn tubing, and a tube for each size has to be provided.

During the cutting of the strip to form the blanks, the corners are rounded as indicated at 15 in Figures 1 and 6 of the drawing. The blank is cut so that when it is folded, any burr left on the metal incident to cutting is at the inner edge of the folded part. In the stock strip as furnished, the side edges are rounded, and therefore, in the completed connecter the edges of the ends are all rounded and the connecter is entirely free from any sharp corners.

It is obvious that minor changes in the details of construction can be made without departing from the spirit of the invention as set forth in the appended claim.

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

A connecter for repairing metallic measuring tapes comprising a metal blank bent so as to form a flat sleeve adapted to receive the ends of the metal tape, the side portions of said blank being overlapped and provided with openings therethrough adjacent the ends, the opposite wall of the connecter having an opening of larger diameter in alignment with each of the first-named openings, screws passing through the overlapping portions and having a threaded connection with the inner lapping portion only, said screws having heads thereon overlying the outer lapping portion, said screws being dimensioned so as to secure the lapping sections in intimate contact with each other and to engage the metal tape overlying the openings in the opposite wall of the connecter for bending said tape into said openings, and thus firmly joining the ends of the tape.

In testimony whereof, I affix my signature.

CLINTON B. ALEXANDER.