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SP ICING DEVICE FOR JOINING THE ENDS OF BELTS.
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FIG. 1.

FIG. 2.

FIG. 3.

FIG. 4.

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SPLICING DEVICE FOR JOINING THE ENDS OF BELTS.

UNITED STATES PATENT OFFICE.


To all whom it may concern:

Be it known that I, OTTO CZARAN, subject of Austria-Hungary, and resident of Long Island City, in the county of Queens and State of New York, have invented certain new and useful Improvements in Splicing Devices for Joining the Ends of Belts, of which the following is a specification.

This invention relates to splicing machines for joining the ends of belts and the like.

The construction embodies means for forming the ends of the belt to the desired shape and means for holding the ends under the pressure while the cement is setting to make a permanent splice joint.

In the drawing forming a part of this specification,

Figure 1 is a vertical longitudinal sectional view of the machine embodying my invention and disclosing the cutting portion of the die;

Fig. 2 is a vertical cross-sectional view on line 2—2 of Fig. 1;

Fig. 3 is an inverted plan view of the cutting die and the under surface of the pressing means for holding the ends of the belt together while the cement is setting.

Fig. 4 is a view illustrating the ends of the belt as they appear after splicing and discloses the novel form of the splice joint.

Referring in detail to the drawing, A indicates the main frame in the base of which is formed the female portion B of the die. C indicates the presser portion in which is formed a housing C' for the male portion D of the die. The housing is provided with end guiding means E and E' on which trave in slots F and F' formed in the frame A. The portion D of the die is provided with a stem D' which extends upward through the casting C in sliding relation therewith, terminates in a bifurcated portion D'' and a pin I extends through the sides of the bifurcated portion and the slot H' formed in the operating lever C, one end of which is pivoted to the frame A as at H. A helical spring J is interposed between the top of the presser element C and abuts the underside of the bifurcated portion D'' of the stem D' and serves to hold the die portion D in its normal upper position in the element C.

Formed in the base portion B is also a groove B' which registers with a groove B'' formed in the presser portion, so that when the upper presser portion is forced downward the grooves B' and B'' will form a complete circle corresponding to the diameter of the belt to be spliced. The opposite sides of the housing is also provided with semicircular grooves at each end indicated by C', C'' which also are located opposite corresponding grooves C', C'' formed in the base portion. The portion D of the die is formed as illustrated in Fig. 3 and the female portion of the die is formed in the base plate to correspond to the male portion. When the two ends of the belt to be spliced are put into the machine with the ends abutting these would rest in alinement with the line 2—2 in Fig. 1. When the lever is forced downward the spring forces the presser portion C down upon the belt to hold the same in firm contact with the female portion of the die and a further movement of the lever increases the pressure on the ends of the belt through the instrumentality of the spring J, while the male portion D of the die cuts the ends of the belt to the proper shape, so that when they are placed together as shown in Fig. 4 they form a spear-head jointed. As illustrated, the slotted portion indicated by L in the end L' is formed by one end of the die D and the projecting central portion M is formed in the end M' by the opposite end of the portion D both of which act, of course, in cooperation with the corresponding female portions of the die.

After the ends of the die thus formed and put together with cement, as illustrated in Fig. 4, the ends are placed in the slot B' and the upper part of the presser portion B'' is forced down upon the belt to squeeze the ends firmly together and thus insure a strong joint.

It is obvious that if the belting is of different shape the grooves B', B'', and C', C'' can be made square instead of round, or of any other desired shape to correspond to the given cross-section of belting.

Having thus described my invention, I claim:

1. A belt splicing device comprising a base portion having two female die portions formed therein and a groove conforming to the shape of the belt to be spliced, cutting dies located above said female portions and in alinement therewith, means whereby said cutting dies may be forced downward into engagement with the female portions there-
of, and means for holding the two ends of a belt, and means co-acting with said cutting dies to hold the belt in position to be acted upon thereby.

2. A splicing device for round belting comprising a housing member and a base member having means for simultaneously shaping the two ends of the round belt so as to form an interlocking joint when said ends are fitted one into the other and means extending over the entire length of said shaped ends for applying pressure to said ends.

3. A belt splicing device comprising a base portion having two female die portions formed therein and a groove conforming to the shape of the belt to be spliced, cutting dies located above said female portions and in alinement therewith, means whereby said cutting dies may be forced downward into engagement with the female portions thereof, and means for guiding said cutting dies in alinement with said female die portions.

4. A belt splicing device comprising a base portion having two female die portions formed therein and a groove conforming to the shape of the belt to be spliced, cutting dies located above said female portions and in alinement therewith, means whereby said cutting dies may be forced downward into engagement with the female portions thereof, and means for guiding said cutting dies in alinement with said female die portions, means for holding the two ends of a belt and means co-acting with said cutting dies to hold the belt in position to be acted upon thereof.

5. A belt splicing device comprising a frame comprising the base portion and a presser portion, a housing in said presser portion, a stem, cutting dies held to said stem operating within said housing, and corresponding female die portions located in said base portion.

6. A belt splicing device comprising a frame comprising the base portion and a presser portion, a housing in said presser portion, a stem, cutting dies held to said stem operating within said housing, and corresponding female die portions located in said base portion.