July 13, 1926. 1,592,416

R. H. E. BROWNELL

DRIVING BELT FOR USE ON CONE PULLEYS AND THE LIKE

Filed April 22, 1926

Fig. 1.

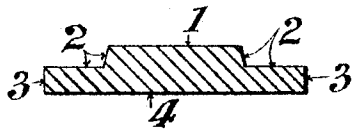


Fig. 2.

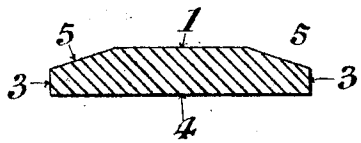


Fig. 3.

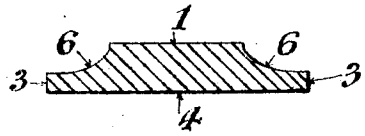


Fig. 4.

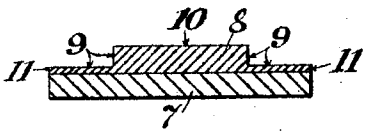


Fig. 5.

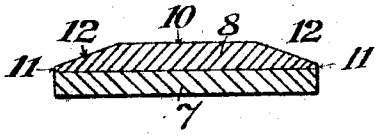
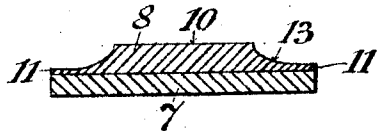


Fig. 6.



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UNITED STATES PATENT OFFICE.

RICHARD HENRY ELLISON BROWNELL, OF STOCKPORT, ENGLAND.

DRIVING BELT FOR USE ON CONE PULLEYS AND THE LIKE.

Application filed April 22, 1926, Serial No. 103,882, and in Great Britain November 11, 1924.

This invention relates to that kind of leather driving belt for cone pulleys and the like wherein the inner or driving surface of the belt is made of reduced width.

Previous to my invention it is known to produce leather belts of this kind by building them up of an outer layer and a narrower inner layer, the two layers being secured together by cement, stitching, rivets and the like.

The object of my invention is to produce an improved form of the hereinbefore specified kind of leather belt which will obviate separation of the inner or driving surface from the wider outer or non-driving surface under the stresses and strains which the belts are exposed to in use, thus increasing the durability of the belts.

I attain this object by the means illustrated in the accompanying sheet of drawings, in which—

Figures 1, 2 and 3 show the cross-sections of belts according to one construction but of different cross-sectional shapes.

Figures 4, 5 and 6 show the cross-sections of belts according to another construction but of different cross-sectional shapes.

Referring to Figure 1 of the drawings, I take a piece of leather of suitable width and thickness and secure the ends together, for example by splicing, to form an endless belt. I then remove material from the inner side 1 of the belt, for example by cutting so as to form an endless rebate 2 at each edge 3 thereof. The inner or driving surface 1 of the belt is thereby reduced in width and is thus narrower than the outer surface 4, the cross section of the belt having the appearance of a shorter rectangular superposed on a longer rectangle, the two rectangular sections being however integral with each other. Thus the belt is composed of a single piece of material and there are therefore no attached layers to become separated when the belt is in use.

It is to be understood that the belt may be built up of two or more lengths spliced together end to end to form one continuous belt.

In lieu of rebating the belt, the same may be chamfered on its inner side 1 either with a flat chamfer 5, as illustrated in Figure 2 or with a concave chamfer 6, as illustrated in Figure 3, to produce a driving surface 1 of less width than the outer surface 4 of the belt.

In the construction illustrated in Figures 4 to 6 I form the belt of an outer layer 7 of leather and an inner layer 8 of leather, these layers being for example each about half the thickness of the finished belt. The inner layer 8, which may for example be of ordinary leather has rebates 9 formed, for example by cutting at its inner or driving side 10 along its two edges 11, as illustrated in Figure 4, or has the said edges chamfered, for example by cutting with a straight chamfer 12, as illustrated in Figure 5, or with a concave chamfer 13, as illustrated in Figure 6, thus reducing its driving surface 10 in width. The two edges 11 are thus reduced to a comparatively small thickness. The outer layer 7, which for example may be of chrome leather and is of the same thickness as the centre part of the inner layer 8, is attached to the outer surface of the inner layer 8 by means of cement, and/or rivets, stitching or the like. Owing to the comparatively small thickness of the outer edges 11 of the inner layer 8, the edges 11 present comparatively little resistance to the bending and compressing action exerted on them by the outer layer 7. Therefore the cement or the like attaching them to the outer layer 7 is not unduly strained and is sufficiently strong to prevent the edges 11 from breaking loose or separating from the outer layer. The cement or the like between the centre or thicker portion of the inner layer 8 and the outer layer 7 is sufficiently strong to prevent separation of the thicker part of 8 from the outer layer 7 when assisted by the unbroken connection of the outer layer 7 with the thinner parts or edges 11 of the inner layer 8.

I claim—

1. A leather driving belt comprising two layers of initially equal width secured together to form a back portion and a front portion which is of less width than the said back portion and has a driving surface, the said front portion being provided on and formed integral with one of the said two layers.

2. A leather driving belt composed of a strip of leather having portions of the leather removed at the sides of the strip to reduce the width of the driving surface relative to the back of the belt and a strip of

leather equal in width and secured to the back of the belt.

3. In a leather driving belt for use on cone pulleys, an endless band of leather, parallel rebates formed at the edges and driving side of the band by removal of leather therefrom and a second endless band of leather of the same width as the first named band and secured to the non-driving side of the first named band.

In testimony whereof, I have signed my name to this specification at Manchester, in the county of Lancaster, England, this 12th day of April, 1926.

RICHARD HENRY ELLISON BROWNELL.