May 5, 1931. C. O. STREETER 1,803,922

DRIVING BELT HAVING WEDGE SHAPED LINKS

Filed May 18, 1928

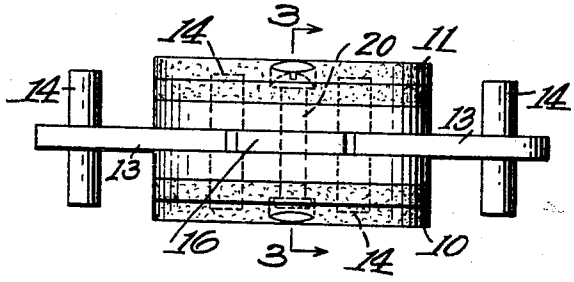


Fig. 1

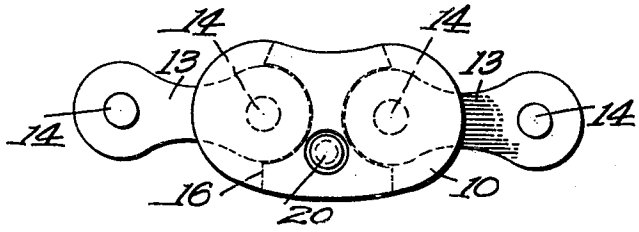


Fig. 2

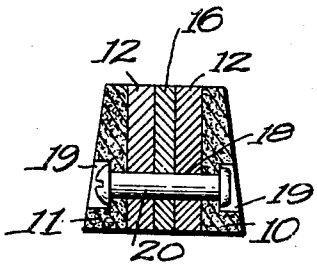


Fig. 3

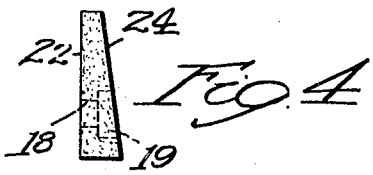


Fig. 4

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UNITED STATES PATENT OFFICE

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DRIVING BELT HAVING WEDGE-SHAPED LINKS

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This invention relates to a driving belt of the type in which leather faced links of truncated V-shaped section are provided. It has been customary to form such links by combining outer leather links, rigid and substantially unyielding inner links, and metal connecting links pivoted between the inner links.

The leather links have been formed initially of leather stock of uniform thickness throughout their surfaces and these links have been assembled with both faces parallel to the central longitudinal plane of the links. The grain side of the leather has been placed outward, as this grain side has much better power-transmitting qualities and greater durability than the flesh side of the leather.

The wedge-shaped belt section necessary for operation on grooved pulleys has been obtained by trimming or beveling the lower edges of the outer or leather links to fit the angle of the pulley grooves. This operation destroys a considerable portion of the grain surface of the leather links at the particular part of the link which engages the pulley and transmits the power, thus substantially reducing the effectiveness and durability of the belt.

It is the object of my invention to provide a construction by which the wedge-shaped section may be obtained while preserving the entire grain side of the outer links, thus obtaining the full value of the grain face of the leather. In the accomplishment of this object in the preferred form, I provide leather links having a complete outer grain surface and having an inner or flesh face cut at a desired angle to said outer face before the links are assembled.

The details of construction of my improved chain are shown in the drawings and will be more particularly pointed out in the appended claims.

In the drawings

Fig. 1 is a plan view of a portion of a chain embodying my improvements;

Fig. 2 is a side elevation thereof;

Fig. 3 is a transverse sectional view, taken along the line 3—3 of Fig. 1, and

Fig. 4 is an end view of one of the leather links.

Referring to the drawings, my improved chain comprises outer leather links 10 and 11, inner links 12, and metal connecting links 13 having pivot studs 14 fixed therein. The links 12 are of vulcanized fibre or other similar rigid and substantially unyielding material and take the endwise strain between the metal links 13 which are pivoted therein. A spacing member 16 is preferably provided between the inner links 12, holding these links apart far enough so that the metal connecting links 13 may swing freely in the operation of the chain.

A transverse opening 18 extends through the several parts of the link and is preferably countersunk to provide enlarged end openings 19. Each link is assembled by inserting a suitable fastening device in the opening 18. As shown in the drawings, a rivet 20 is inserted with its head in one of the openings 19 and the shank of the rivet is headed over in the opposite opening 19 to hold the parts securely in assembled relation.

The construction thus far described is or may be of the usual commercial form. My invention relates particularly to the construction of the outer or wedge-shaped leather links 10 and 11. I form these links by skiving off the inner or flesh side 22 (Fig. 4) of the link at a desired angle, leaving the outer or grain side 24 intact. I then assemble the links with the flesh sides 22 engaging the inner links 12 and thus secure a driving belt having outer inclined surfaces 24 formed throughout of the grain side of the leather. The tractive power of the belt is thus substantially increased, as the grain side is much superior to any other part of the belt in tractive qualities as well as in durability.

I am also able to form the inclined surfaces at the angle of the pulley groove throughout the height of the link, whereas in the previous construction only the lower portion of the link was beveled and consequently the engaging surface was only about one-half of the width of the link. If the entire face of the link had been beveled on the outside, practically the entire grain surface of the leather would have been removed, still further re-

ducing the strength and durability of the belt.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:—

1. A driving belt comprising substantially unyielding inner links, metal connecting links pivoted thereto, spacing links of a thickness substantially equal to said connecting links located between said inner links, and leather outer links assembled with said inner links, said leather outer links having their outer driving faces formed entirely of the grain face of the leather, and being substantially thinner at one longitudinal edge than at the other, whereby the outer grain face is disposed at a substantial angle to the central longitudinal plane of said belt.

2. A driving chain comprising substantially unyielding inner links of uniform thickness throughout, metal connecting links pivoted thereto, spacing members of a thickness substantially equal to said inner links located between said inner links, and leather outer links assembled with said inner links and spacing members, said leather links having their outer driving faces formed entirely of the grain surface of the leather and having their inner flesh faces skived off at an angle, whereby the outer grain surfaces are positioned to fit a pulley groove of V-shaped section and to contact therewith throughout its width.

3. A driving belt comprising substantially unyielding inner links, metal connecting links pivoted thereto, spacing links of a thickness substantially equal to said connecting links located between said inner links, and leather outer links assembled with said inner links, said leather outer links having their outer driving faces flat and continuous and formed entirely of the grain surface of the leather and said leather links being wedge-shaped in section, whereby the outer grain surfaces are positioned to engage a pulley groove of V-shaped section and to contact therewith throughout its width.

In testimony whereof I have hereunto affixed my signature.

CLAUDE O. STREETER.