J. BREUER.

POWER BELT.

APPLICATION FILED JULY 2, 1920.

1,420,962. Patented June 27, 1922.

Fig. 1.

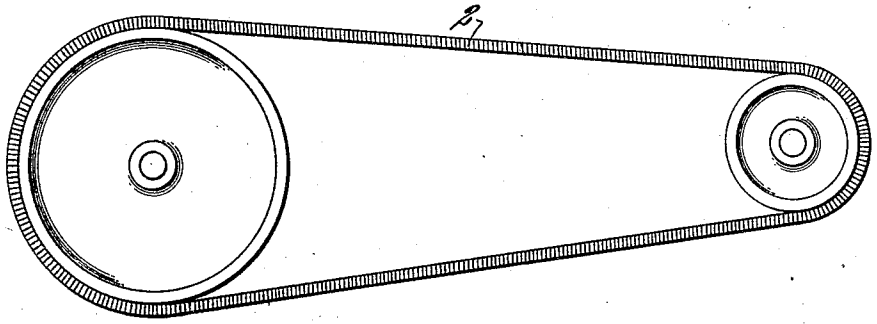


Fig. 2.

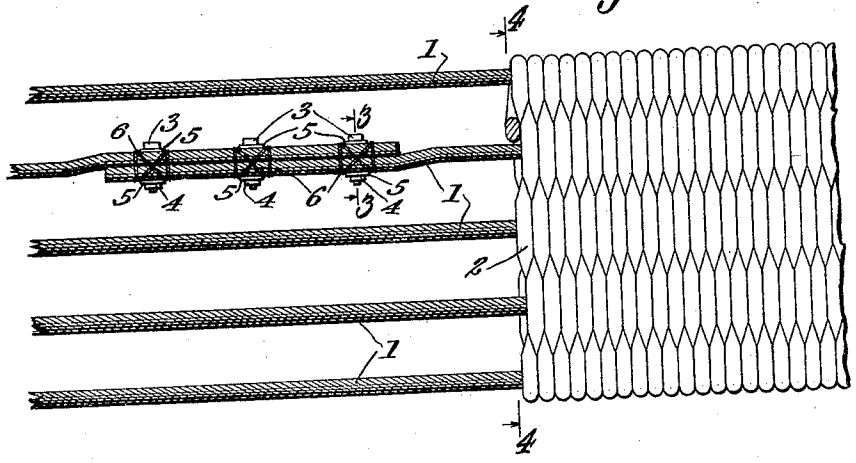


Fig. 3.

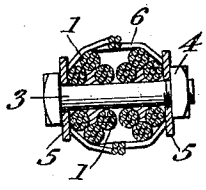
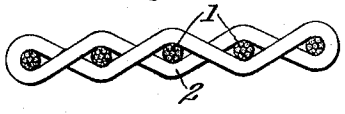


Fig. 4.



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UNITED STATES PATENT OFFICE.

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POWER BELT.

1,420,962. Specification of Letters Patent. **Patented June 27, 1922.**

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To all whom it may concern:

Be it known that I, JACOB BREUER, a citizen of the United States, residing at Marion, in the county of Smyth and State of Virginia, have invented a certain new and useful Improvement in Power Belts, of which the following is a full, clear, and exact description.

The object of this invention is to provide a belt for driving machinery, which will not stretch when wet, and which is especially useful in plants where water is the source of power.

The invention consists of a belt, preferably an endless belt, composed of longitudinal strands of wire cable or metal in other forms, laid after the manner of warps, and a filling or weft of basketwork or wickerwork, using for the latter withes of willow, cane, rattan or other natural or prepared material that is substantially unaffected injuriously by water or moisture, as I will proceed now to explain and finally claim.

In the accompanying drawings illustrating the invention in the several figures of which like parts are similarly designated, Figure 1 is a side elevation of an endless belt mounted upon pulleys. Fig. 2 is a plan view, on a larger scale, of a fragment of the belt partly filled or completed. Fig. 3 is a cross-section on line 3—3 of Fig. 2, and on a larger scale, illustrating in connection with Fig. 2 a form of splice for the longitudinal strands. Fig. 4 is a cross-section of the belt on line 4—4, Fig. 2.

Longitudinal strands 1, of suitable number and suitably spaced apart, are properly supported to receive the filling 2. The strands may be wire cables or other suitable flexible metallic forms. The meeting ends of these cables may be spliced or connected in any suitable way, as for example, by arranging the ends in parallel relation as shown in Figs. 2 and 4, opening the strands for the passage of through bolts 3, and tightening up the bolts by means of nuts 4, with or without the washers 5, and then wrapping the bolted portions, as at 6, with wire or other suitable means, so as to form a splice or joint that will afford the least possible obstruction to the filling or weft, and that will not part.

As shown in Figs. 2 and 4, the filling 2 is woven about the strands 1 in the manner of basket-weaving, the withes of the filling being bent around the outside strands so as to present like surfaces on opposite sides of the weft, and so as to avoid projections, the ends of the withes preferably being located at any point in the surface between the outside strands.

As already stated, the filling may be of willow, cane or rattan, or other natural or prepared similar material; and in the case of willow or other withes, they may be used with the bark on or with the bark removed.

A belt constructed in the manner described costs less to manufacture than a corresponding belt of leather, and in addition it does not become hot in running, and is not injuriously affected by either water or oil, and will not stretch. It is sufficiently flexible to bend easily around a pulley and to hug the pulley with sufficient traction to run smoothly and efficiently.

Variations in details of construction are permissible within the principle of the invention as herein explained and hereinafter claimed.

What I claim is:—

1. A belt, composed of longitudinal substantially inelastic or non-stretching strands, arranged parallel and serving as a warp, and a basketwork filling applied to said strands.

2. A belt, composed of longitudinal substantially inelastic or non-stretching strands arranged parallel and serving as a warp, and a basketwork filling of vegetable withes.

3. A belt, composed of longitudinal substantially inelastic or non-stretching strands arranged parallel and serving as a warp, and a basketwork filling interwoven with the longitudinal strands and having similar faces on both sides.

4. A belt, composed of longitudinal substantially inelastic or non-stretching strands arranged parallel and serving as a warp,

and a weft of willow, cane or rattan applied to said strands and presenting like faces on opposite sides.

5. In a belt of the character described, longitudinal substantially inelastic or non-stretching strands arranged parallel and serving as a warp and having the meeting ends spliced transversely by through bolts and reinforcing wrappings.

6. An endless non-stretchable belt, composed of warp of wire cables, and a basket-work weft of withes.

In testimony whereof I have hereunto set my hand this 30 day of June, A. D. 1920.

JACOB BREUER.

Witnesses:

GEO. F. COOK,

KATHERINE L. PICKLE.