No. 660,500. Patented Oct. 23, 1900.

L. FROHNERT.

SHEAVE FOR CABLE ROADS.

(Application filed July 24, 1900.)

(No Model.)

Fig. 1.

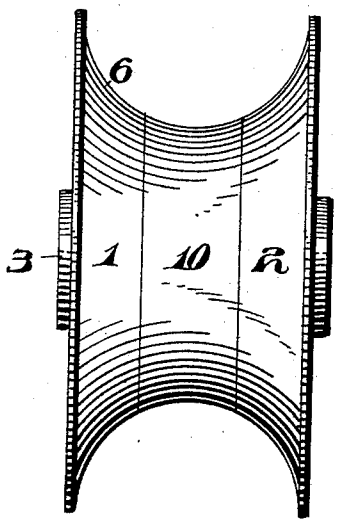


Fig. 2.

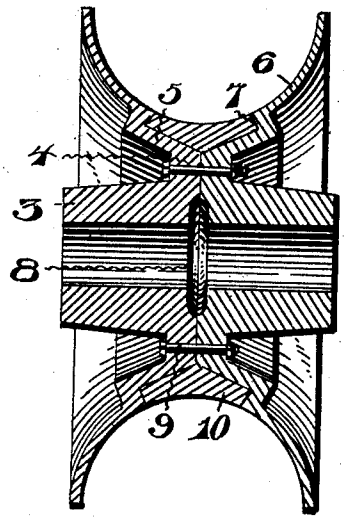


Fig. 3.

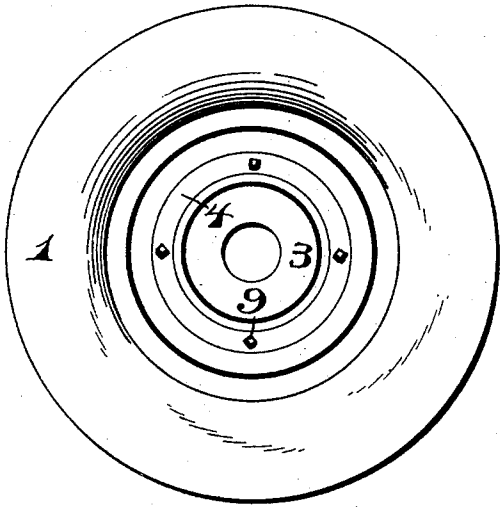
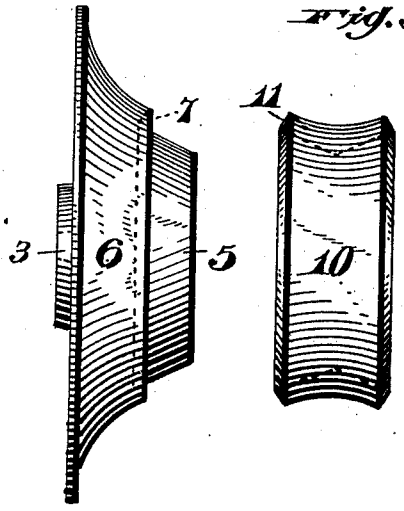


Fig. 4.

Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS FROHNERT, OF CONNELLSVILLE, PENNSYLVANIA.

SHEAVE FOR CABLE-ROADS.

SPECIFICATION forming part of Letters Patent No. 660,500, dated October 23, 1900.

Application filed July 24, 1900. Serial No. 24,738. (No model.)

To all whom it may concern:

Be it known that I, LOUIS FROHNERT, a citizen of the United States of America, residing at Connellsville, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Sheaves for Cable-Roads, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in sheaves, and is particularly adapted for use in connection with the draw ropes or cables of pit or other cars used in mining, although the same can be adapted for various purposes.

The invention aims to construct a sheave with a removable bearing-band upon which operates a draw rope or cable and when the same becomes worn can be removed and a new one substituted without destroying the entire sheave, thereby overcoming the removal of the entire sheave when the same has become worn at the center thereof. Furthermore, the invention aims to construct the bearing-band in such a manner that if the same becomes cracked it will not fall from its place until the tie-bolts which secure the sections of the sheave together are removed.

A further object of the invention is to construct a sheave which shall be extremely simple in construction, strong, durable, efficient in its use, and comparatively inexpensive to manufacture.

With the above and other objects in view the invention consists in the novel combination and arrangement of parts, which will be hereinafter more fully described, and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a front view of my improved sheave. Fig. 2 is a cross-sectional view thereof. Fig. 3 is a side view of the same. Fig. 4 is a front view of one of the sections of the sheave. Fig. 5 is a front view of the bearing-band.

Referring to the drawings by reference-numerals, 1 and 2 indicate the sections of the sheave, which are each provided with a hub portion 3, web portion 4, a bearing-cone 5, formed integral at one end with a web, and at its opposite end with the inner face of the converging rim 6, forming a shoulder 7. At the inner end of each of the hubs 3 is formed a cut-away portion 8 to receive a suitable lubricant. The sections of the sheave are secured together by means of the tie-bolts 9, extending through the web portion. The reference-numeral 10 denotes an annular bearing-band having a beveled edge 11, a segment-shaped outer face, and a wedge-shaped inner face.

When the bearing-band is in position, the wedge-shaped inner face engages the bearing-cone of each section, the beveled edge, the shoulder 7, and the segment-shaped outer face being a continuation of the converging rim of each of the sections. The shoulder 7 securely retains the bearing-band in position when the sections are secured together, and the band cannot be removed unless the tie-bolts are loosened and the sections taken apart. By this construction it will be readily seen that when the sheave becomes worn it will only be the bearing-band. Consequently the same can be removed and replaced at will without destroying the remaining portion of the sheave, thus overcoming such objectionable feature when the sheave is constructed of one piece.

It is thought the many advantages of my improved construction can be readily understood from the foregoing description, taken in connection with the accompanying drawings, and it will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

A sheave comprising two equal rim portions having concave faces, a bearing-cone formed integral with each rim, a web formed integral with each of said cones, an outwardly-extending hub formed integral with each of said webs, said hubs being recessed on their inner ends, and tie-bolts engaging the webs

of the two sections for securing the same together, combined with a bearing-band provided with beveled edges to engage shoulders provided therefor on the rim portions, said band having a concave outer face and a wedge-shaped inner face, as and for the purpose described.

In testimony whereof I affix my signature in the presence of two witnesses.

LOUIS FROHNERT.

Witnesses:
JOHN NOLAND,
H. C. EVERT.