U. T. GABA.

PULLEY.

APPLICATION FILED OCT. 30, 1908.

928,746. Patented July 20, 1909.

Fig. 1.

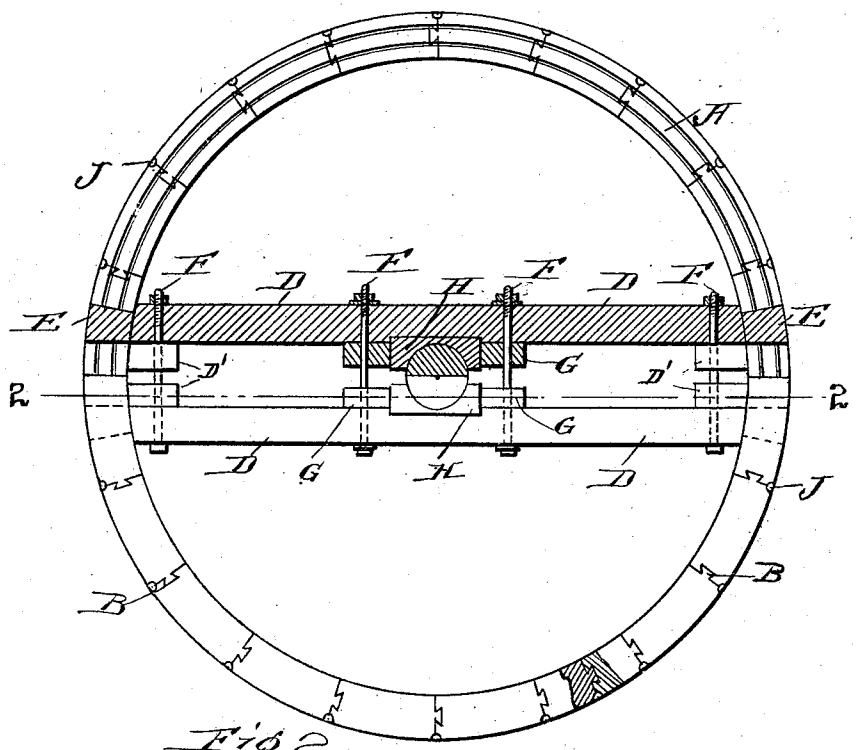


Fig. 2.

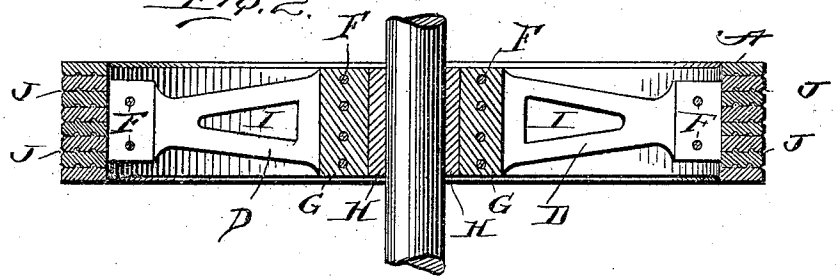


Fig. 3.

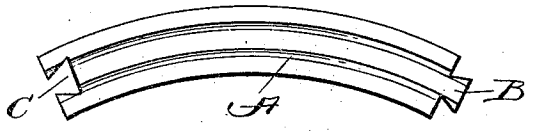


Fig. 4.

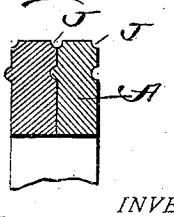
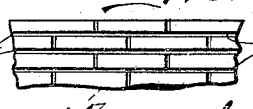


Fig. 5.



WITNESSES

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PULLEY.

No. 928,746. Specification of Letters Patent. Patented July 20, 1909.

Application filed October 30, 1908. Serial No. 460,335.

To all whom it may concern:

Be it known that I, ULYSSES T. GABA, a citizen of the United States of America, residing at Baxter Springs, in the county of Cherokee and State of Kansas, have invented certain new and useful Improvements in Pulleys, of which the following is a specification.

This invention relates to machine elements and particularly to pulleys.

An object of this invention is to produce a wooden pulley, preferably a split pulley, in which the rim of the wheel is composed of segmental pieces lying side by side, the ends of the contiguous segmental sections being in staggered relation in order that the segmental sections of one series will overlap the joints of the segmental sections of the next succeeding series.

A further object of this invention is to produce means for firmly uniting the ends of the sections of each series preferably through the medium of dove-tail joints, and as a further means for increasing the stability of the rim, it is an object of the invention to form tongue and groove connections for the contacting surfaces or sides of the said sections.

A still further object of this invention is to provide a pulley having spoke arms with open central portions in order that the said spoke arms will offer a minimum resistance to the air as the same are rotated.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views in which—

Figure 1, illustrates a side elevation of a pulley embodying the invention, said pulley being shown partly in section; Fig. 2 is a longitudinal sectional view, taken on the line 2—2 of Fig. 1, with the outer blocks D′, removed. Fig. 3 is a detail view of one of the segmental strips forming the rim. Fig. 4, illustrates a sectional view of a rim of a pulley, embodying a slightly modified construction; Fig. 5, illustrates a fragment of the outer surface of the pulley.

In these drawings A, denotes one of a series of segmental strips from which the rim is formed having a dove-tail projection B, on one end and a dove-tail recess C, on the opposite end. As each of the segmental sections is likewise provided with a dove-tail projection and a dove-tail recess, it is the purpose of the inventor to have the dove-tail projection of one section fit into the recess of the next succeeding section. The rim is made up of a series of circumferentially arranged segmental strips lying side by side and having their contiguous surfaces tongued and grooved in order that the segmental strips may be secured firmly together to withstand the strain incident to use. The tongues and grooves are not applied at the ends of the sections of the pulley, the said ends of the sections being drawn into contact by the bolts (to be hereinafter referred to). The rim is preferably formed in two half sections and each half section has its ends recessed to receive an end of a spoke arm D, and the ends of each spoke arm have tenons E, which fit in the recesses of the sections of the rim. As the spoke arms are secured to the sections of the rim, the said sections may be retained in assembled relation by securing the spoke arms together rigidly and to that end I employ a series of bolts F, by which the spoke arms are clamped together. The centrally disposed bolts extend through the blocks G, which are designed to retain the hub sections H, in place, although, of course, the said hub sections are removable and may be inserted between the blocks, or they may be removed therefrom for the purpose of repair or substitution. From an inspection of the drawing, it will be seen that the removable hubs may be applied to a shaft and the bolts F, may be manipulated to increase the frictional engagement of the hub sections on the shaft thus clamping the pulley to a shaft.

The spoke arms D, have openings I, which permit the free circulation of air and reduce the resistance to the travel of the said spoke arms.

The external surfaces of the rims have annular grooves J, and said annular grooves are preferably intersected by a series of transversely disposed grooves all of which permit the air to escape when the belt is traveling on the outer surface of the rim, thus permitting the belt to adhere more closely to the pulley and thereby decreasing

the tension on the belt and materially increasing the efficiency of belt and pulley in transmission of power.

Blocks D′ are applied to the rim at the inside and at the junction of the two sections thereof, the said blocks being apertured to receive the bolts F. The blocks may be glued to the spoke arms and to the rim and are further held in position, as stated, by the bolts.

I claim—

A pulley formed in sections, each of said sections having the rim portion thereof formed of segmental sections arranged in rows, the section of one row having its joints overlapped by the segments of the next succeeding row, there being tongue and groove connections for the rows of segments, and dove tail connections for the ends of the segments of each row, the segmental sections having their outer edges recessed to form grooves at the sides and ends thereof when the said sections are assembled.

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

ULYSSES T. GABA.

Witnesses:

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