(No Model.)

D. G. REITZ.

SPLIT PULLEY.

No. 454,227. Patented June 16, 1891.

Fig. 1.

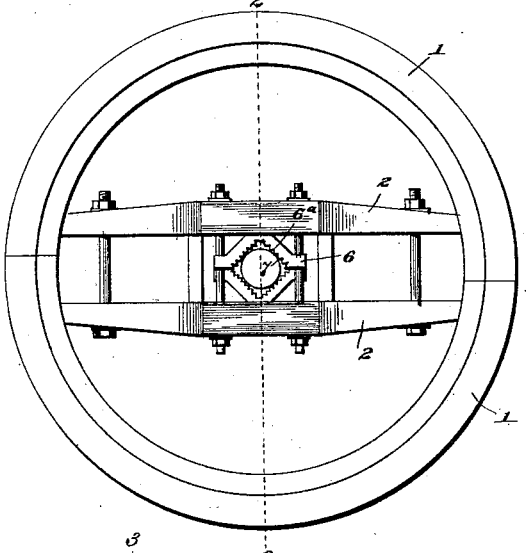


Fig. 4.

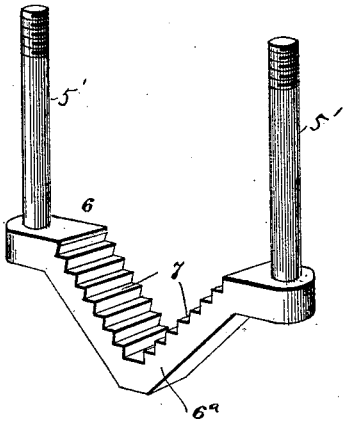
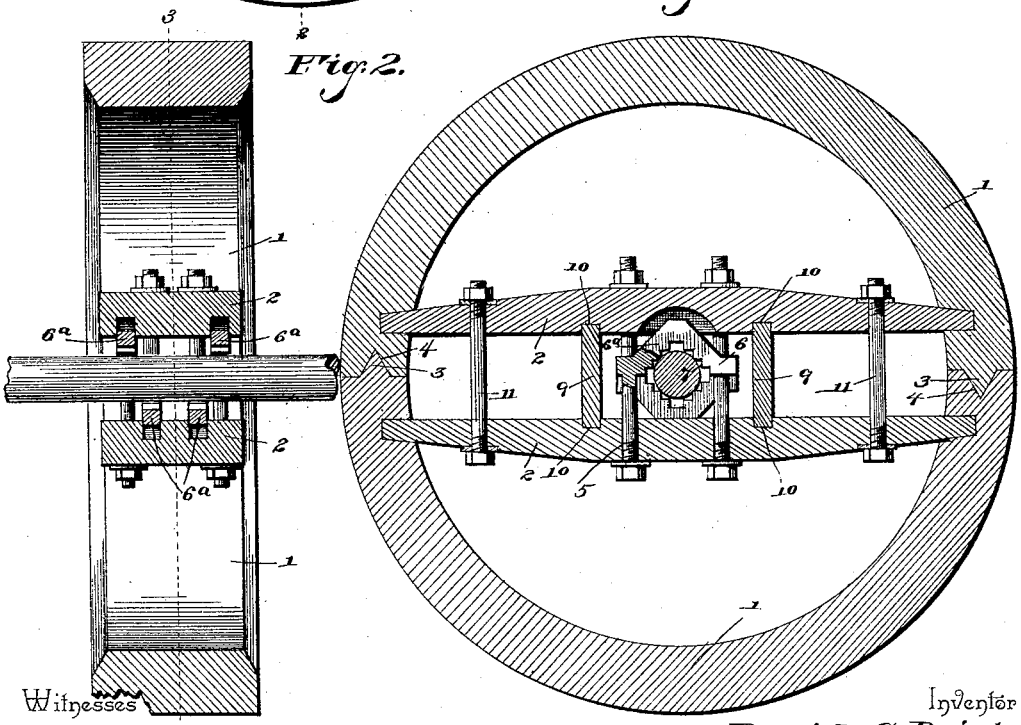


Fig. 3.

Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

DANIEL G. REITZ, OF BERLIN, PENNSYLVANIA.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 454,227, dated June 16, 1891.

Application filed October 16, 1890. Serial No. 368,289. (No model.)

To all whom it may concern:

Be it known that I, DANIEL G. REITZ, a citizen of the United States, residing at Berlin, in the county of Somerset and State of Pennsylvania, have invented a new and useful Split Pulley, of which the following is a specification.

This invention relates to split pulleys; and it has for its object to construct a device of this class, which may be readily adjusted upon shafts of different sizes, and which may be conveniently removed and readjusted.

The invention consists in the construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a side elevation of a pulley constructed in accordance with my invention. Fig. 2 is a sectional view taken on the line 2 2 in Fig. 1. Fig. 3 is a sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a perspective detail view of one of the yokes by means of which the sections of the pulley are connected, and by means of which they are mounted upon the shaft.

Like numerals of reference indicate like parts in all the figures.

The parts or sections of which my improved split pulley is constructed are made in the usual manner of wood and are designated in the drawings by 1 1. At the inner ends of said sections I place braces 2 2. The meeting ends of the sections 1 1 are provided with tongues and grooves 3 4, which are triangular or V-shaped, so that the meeting ends of the said sections will be readily guided together.

The braces 2 are provided with perforations 5 to admit of the passage of the arms 5′ of the yokes 6. The latter may be constructed in any suitable manner; but I prefer that they should be made of malleable iron, the cross-bars 6^a of said yokes being provided on their inner sides with teeth or corrugations 7. These toothed cross-bars, in the process of casting, are chilled, so as to give the requisite hardness to enable the teeth to firmly grasp the shaft upon which the pulley is to be adjusted.

Of the yokes 6 any desired number may be used. I prefer, however, that they should be distributed equally and alternately on opposite sides of the shaft upon which the pulley is to be mounted. I also prefer that the inner toothed faces of the said cross-bars should be of approximate V shape, as will be seen in the annexed drawings, inasmuch as by such conformation the yokes will be enabled to grasp shafts of different sizes more readily and firmly than by any other construction.

In mounting my improved split pulley upon a shaft I prefer to interpose cross-pieces, such as 9, between the braces 2 2, which latter are provided with recesses 10 to accommodate the ends of the cross-pieces 9. These devices, however, are intended merely for the purpose of stiffening the braces 2 2. The latter may also in large pulleys be connected by transverse bolts, such as have been shown at 11 in the drawings; but in small pulleys such connecting-bolts may be dispensed with, the halves of the pulley being firmly connected by the yokes 6, by means of which they are clamped upon the shaft.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. My improved split pulley is very simple in its construction, and it may be readily adjusted upon shafts of various sizes. The method of and the means for its adjustment upon shafts of various diameters enable it to be mounted upon any shaft that is small enough to pass between the opposite yokes 6, thus permitting the said pulley to be mounted upon various-sized shafts.

It is obvious that in the construction of this device the toothed cross-bars of the yokes 6 may be made separate from the arms of the latter. I reserve the right to this and to any other modifications which may be resorted to without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a split pulley, the halves or sections provided with braces 2 at their inner ends, in combination with the yokes arranged in pairs on opposite sides of the shaft and having arms extending through said braces and provided

with tightening-nuts, substantially as set forth.

2. In a split pulley, the combination of the halves or sections provided with V-shaped grooves and tongues at their meeting edges and having braces at their inner ends, the cross-pieces interposed between said braces, and the connecting-yokes adapted to clasp a shaft and having the arms and tightening-nuts, substantially as set forth.

3. In a split pulley, the combination, with the halves or sections having the transverse braces, of the connecting-yokes arranged in pairs on opposite sides of the shaft and having V-shaped cross-bars provided with teeth or corrugations on their inner sides, and the tightening-nuts upon the arms of said yokes and bearing against the outer sides of the braces through which said arms are extended, substantially as set forth.

4. In a split pulley, the combination, with the halves or sections having the braces at their inner ends, of the yokes arranged in pairs on opposite sides of the shaft and having arms extending through said braces and provided with tightening-nuts, said yokes being provided with V-shaped cross-bars having teeth or corrugations on their inner sides adapted to clasp the shaft upon which the pulley is to be adjusted, substantially as set forth.

5. In a split pulley, the yokes 6, arranged in pairs, one pair on each side of the shaft and having toothed inner surfaces, and tightening means, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DANIEL G. REITZ.

Witnesses:
WM. ENGLE,
JAC. J. ZORN.