

(No Model.)

2 Sheets—Sheet 1.

S. S. ADKINS.
SPLIT WOODEN PULLEY.

No. 423,300.

Patented Mar. 11, 1890.

Fig. I.

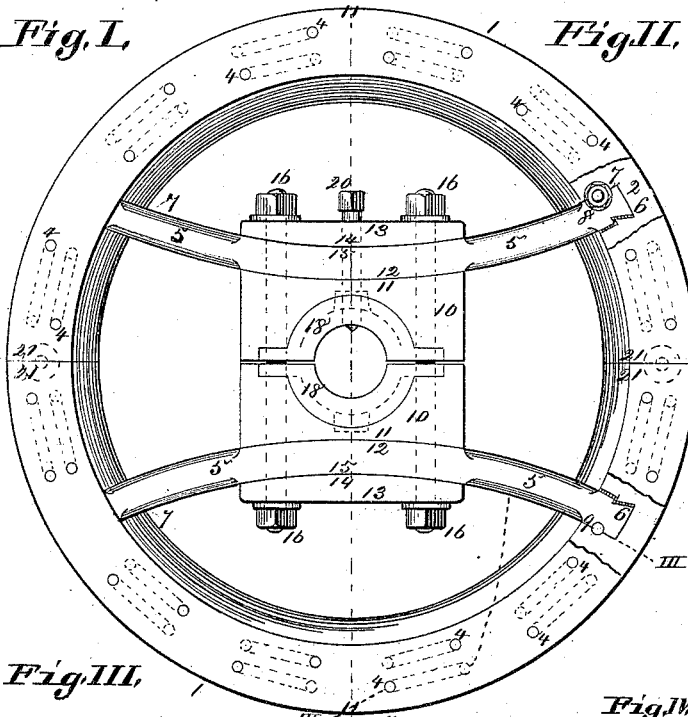


Fig. II.

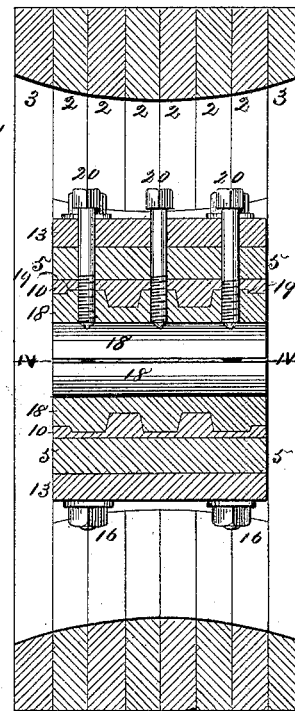


Fig. III.

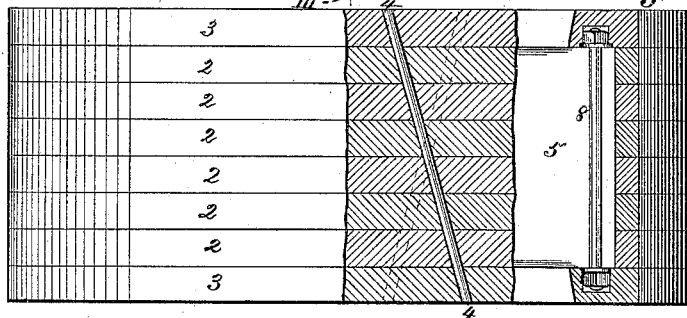


Fig. IV.

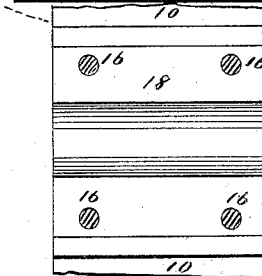


Fig. V.

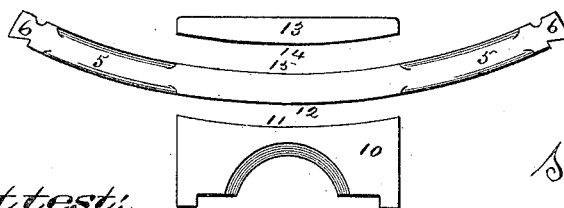
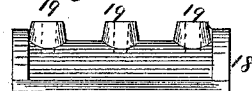


Fig. VI.



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Fig. VII.

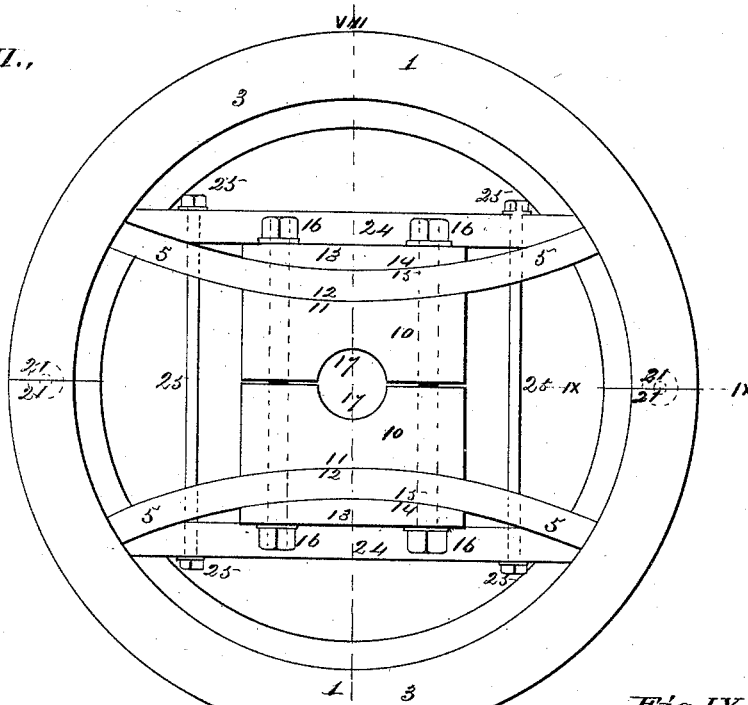


Fig. VIII.

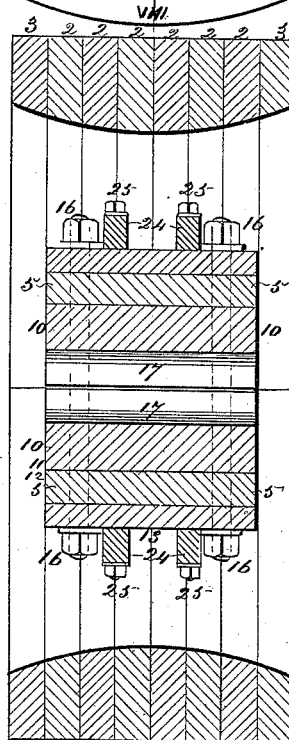
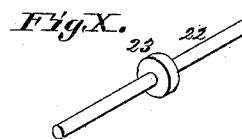
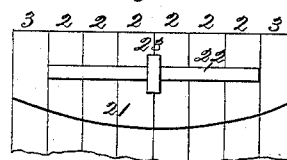


Fig. IX.



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UNITED STATES PATENT OFFICE.

SAMUEL S. ADKINS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE HALL & BROWN WOOD WORKING MACHINE COMPANY, OF MISSOURI.

SPLIT WOODEN PULLEY.

SPECIFICATION forming part of Letters Patent No. 423,300, dated March 11, 1890.

Application filed February 14, 1889. Serial No. 299,815. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL S. ADKINS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Split Wooden Pulleys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Figure I is a side view of the pulley with parts of the rim broken out. Fig. II is an axial section at II II, Fig. I. Fig. III is a top view with part broken out at line III III, Fig. I. Fig. IV is a section at IV IV, Fig. II. Fig. V is a detail side view showing an arm and one section of the hub disconnected. Fig. VI is a detail view of one section of the box or bushing. Fig. VII is a side view of the pulley, showing a slight modification or addition. Fig. VIII is an axial section at VIII VIII, Fig. VII. Fig. IX is a section at IX IX, Fig. VII. Fig. X is a perspective view of the collared dowel-pin which is sunk into the meeting ends of the rim.

My invention consists in novel features of construction hereinafter described, and pointed out in the claims.

The rim is shown as made in two semicircular parts 1, each consisting of a number of semi-annular layers 2 and 3, which are glued together so as to form a solid piece. The layers are also held together by oblique pins 4.

5 are curved wooden arms. These arms are shown with a width somewhat less than the width of the rim extending to the inner sides of the outer layers 3. The ends of the arms are formed in dovetails 6, and the central part of the rim, composed of the layers 2, has cut in it grooves 7, in which the ends of the arms fit tightly, the ends of the arms being inserted edgewise into the grooves and secured with glue. As an additional means of locking the ends in the rim, a screw-bolt 8 is passed through a hole 9, bored through one-half in the arm and one-half in the rim. (See Figs. I, III, and V.)

The main portions of the hub consist of two similar parts 10. Each part 10 at the side 11 nearest to the rim is curved to fit the convex side 12 of the arm 5. 13 is a block having a side 14, made to fit the concave side

15 of the arm. (See Figs. I, V, and VII.) The central parts of the arms are tightly held between the parts 10 and 14, being secured by glue and by the screw-bolts 16, by which the two parts of the hub are held together. In some cases the wooden hub is fitted directly upon the shaft, each part 10 having a recess 17, fitting the shaft. (See Figs. VII and VIII.) In other cases the hub is fitted with a bush or box made in two parts 18, one part being fitted to each of the parts 10 of the hub. (See Figs. I and II.) The bolts 16 pass through the wings of the boxes. (See Figs. I and IV.) Where the pulley is fast upon the shaft, the boxes may be cast with bosses 19, which are bored through and screw-threaded to receive set-screws 20. (See Figs. I and II.) Where the pulley is loose on the shaft, the bosses and set-screws may be dispensed with.

The meeting ends 21 of the rim may be connected by usual dowel-pins to prevent any displacement. I prefer, however, to sink or halve into the ends a pin 22, having one or more collars 23.

In order to stiffen the arms 5, struts, or braces 24 may be introduced extending from end to end of the arms and bearing against the pulley-rim. These braces are connected together by screw-bolts 25, which extend through them and through the arms. (See Figs. VII and VIII.) In cases where the braces 24 are used the bolts 25 assist in holding the two parts of the pulley together.

I claim as my invention—

1. In a split pulley, the rim, the hub members, and the continuous outwardly-curved bracing-arms attached at their central parts to said hub members and having their ends secured in the rim, substantially as shown and described.

2. A wooden pulley consisting of two similar sections, each section comprising a half-rim 1, a half-hub 10, formed with a curved side 11, a block 13, formed with a curved side 14, and the curved arm 5, fitting between the curved sides, and the bolts 16, clamping the half-hubs and arms together, substantially as described.

3. A wooden pulley consisting of two similar sections, each section comprising a half-rim 1, having dovetail recesses 7 and bolt

holes 9, a half-hub 10, formed with a curved side 11, a block 13, formed with a curved side 14, and the curved arm 5, having dovetail ends 6, the bolts 16, clamping the half-hubs and 5 arms together, and the bolts 8, securing the ends of the arms to the half-rims, substantially as described.

4. A wooden pulley consisting of a rim 1, formed of a number of layers 2 3, laid flat together, the pin 22, passed through the meeting edges of the rim having a collar 23 sunk equally into said edges, a hub, and arms secured to the rim, substantially as described.

5. A wooden pulley consisting of a rim 1 and 15 a hub comprising two similar sections, each

section having a half-hub 10, a half-box 18, having screw-threaded bosses 19, the set-screws 20, and the arm 5, substantially as described.

6. A wooden pulley consisting of two similar sections, each section comprising a half-rim 1, a half-hub 10, an arm 5, formed of a single curved piece and dovetailed to the half-rim at the ends, a straight brace extending across the half rim to the ends, and the bolts 25 16 and 25, substantially as described.

SAMUEL S. ADKINS.

Witnesses:

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THOMAS KNIGHT.