

No. 797,155.

PATENTED AUG. 15, 1905.

J. E. SWINEFORD.

WOOD PULLEY.

APPLICATION FILED SEPT. 23, 1902.

Fig. 3.

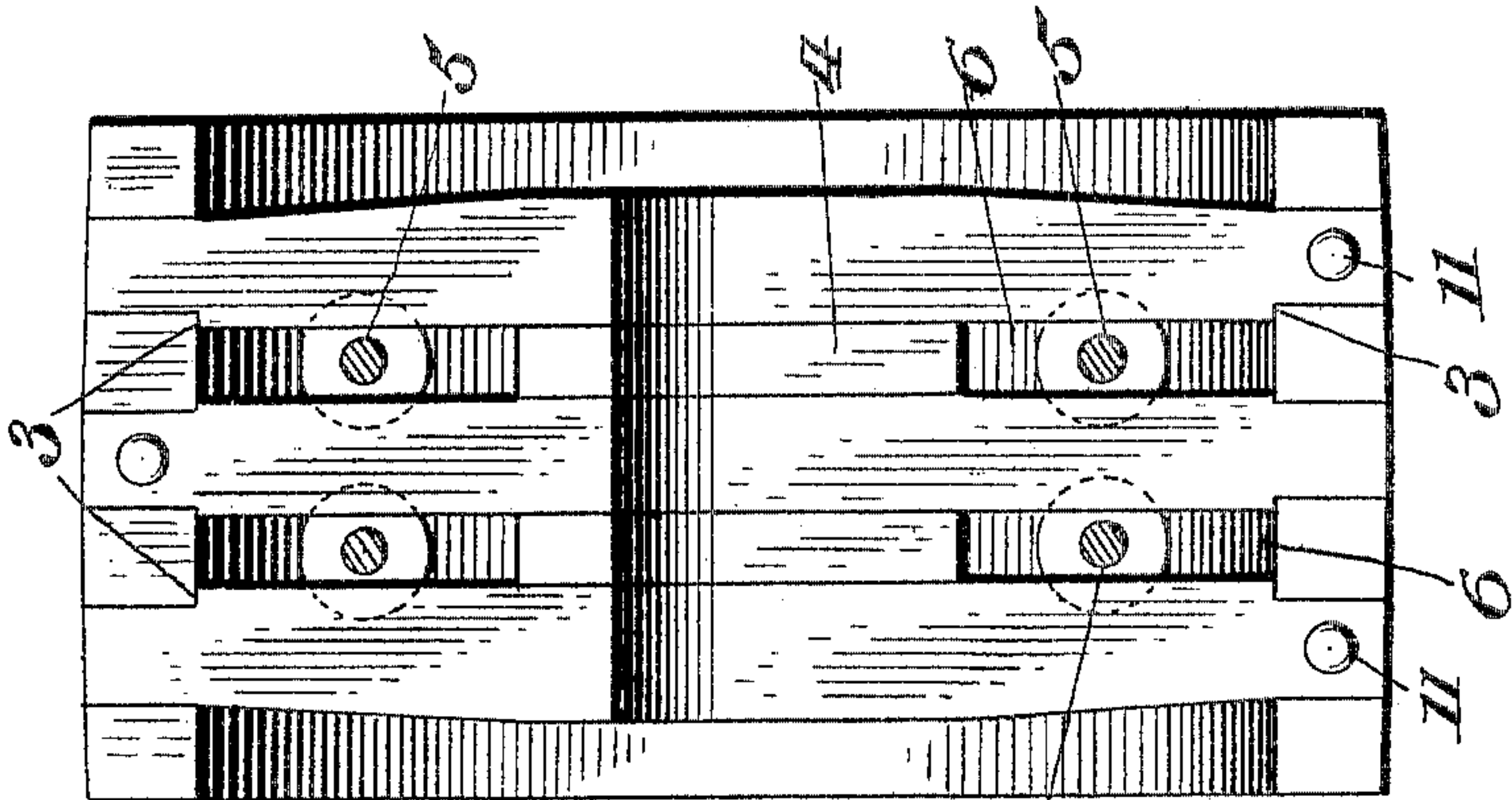


Fig. 2.

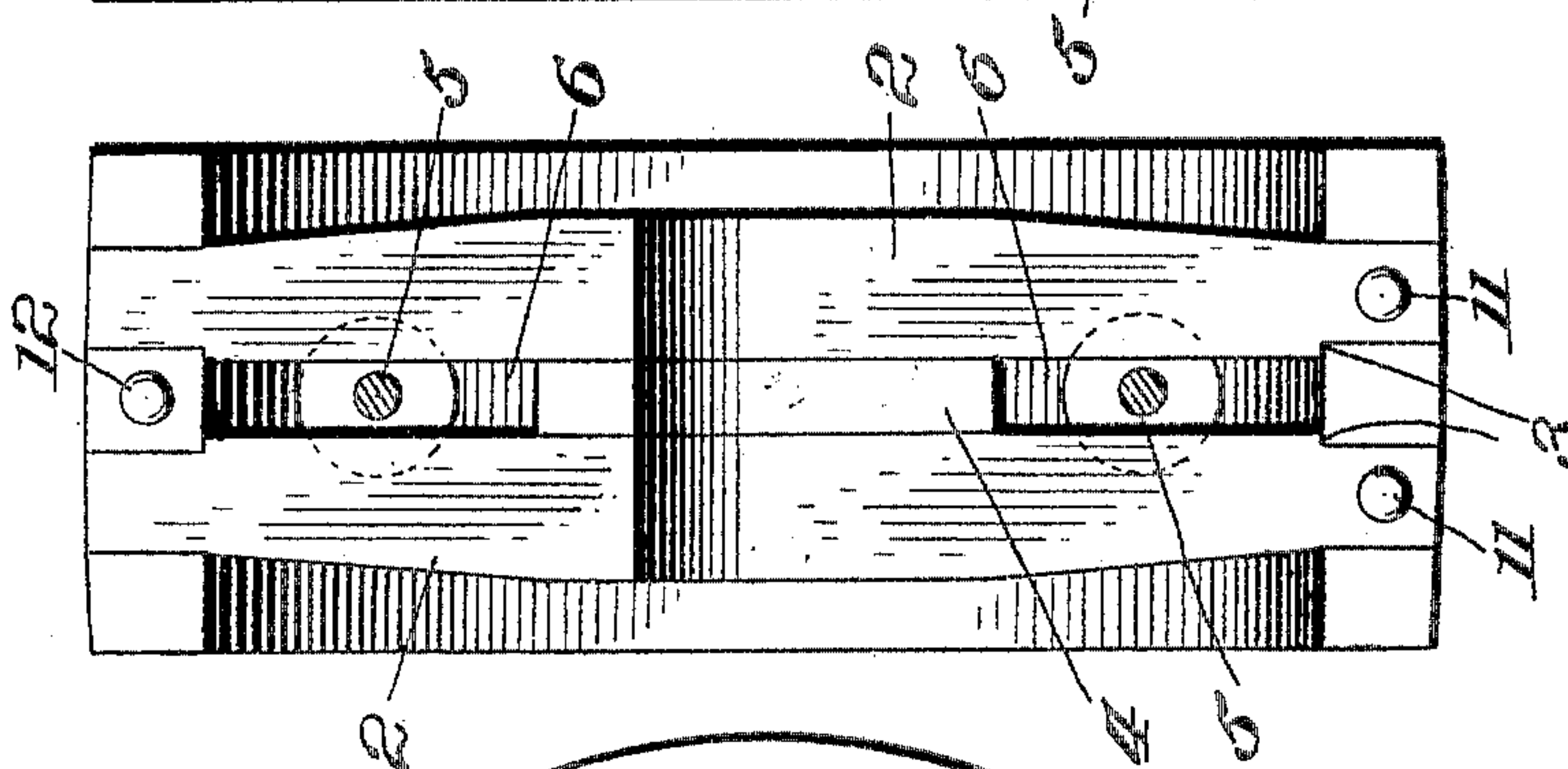
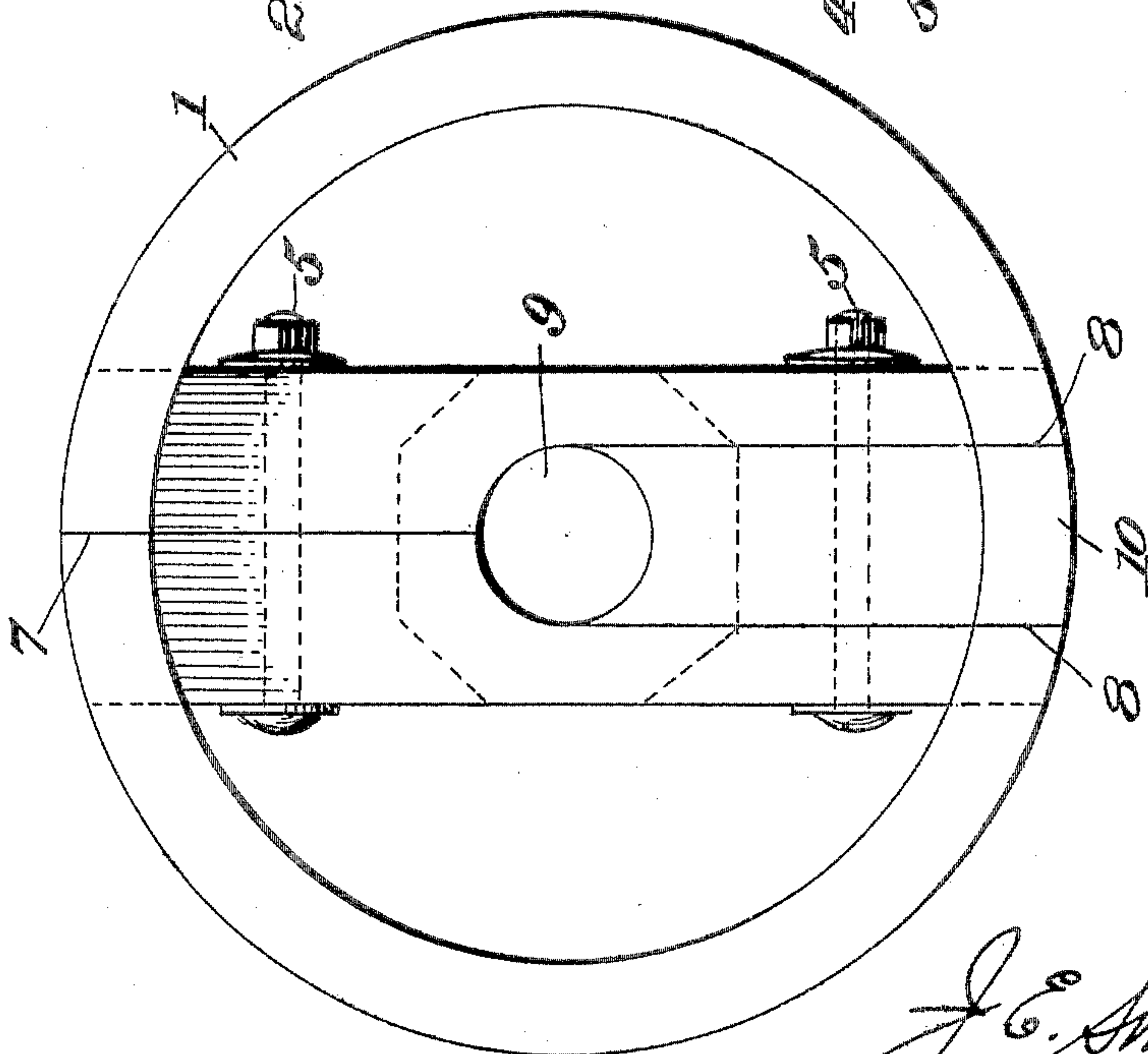


Fig. 1.



Witnesses
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WOOD PULLEY.

No. 797,155.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed September 23, 1902. Serial No. 124,548.

To all whom it may concern:

Be it known that I, JAMES ESTEP SWINEFORD, a citizen of the United States, residing at Ashland, in the county of Ashland, State of Ohio, have invented certain new and useful Improvements in Wood Pulleys, of which the following is a specification.

The present invention comprises a pulley made up of sections of wood suitably shaped and glued or otherwise fastened together, the object of the invention being to produce a wood pulley which is cheap, strong, durable, and which can be quickly connected to or disconnected from a shaft.

In the accompanying drawings, Figure 1 shows in side elevation a pulley embodying my invention. Fig. 2 is an inside view of one section of a pulley having two pairs of spoke members, and Fig. 3 is a similar view of a pulley having three pairs of spoke members.

Referring to the drawings, 1 indicates the rim of the pulley, which rim preferably consists of a number of parts or pieces of wood arranged side by side with their grains in different directions and securely glued together.

In building up the pulley-rim the ends of the spoke members 2 are built in so that they form part of the rim, as indicated by dotted lines in Fig. 1 and by full lines in Figs. 2 and 3. The spoke members are preferably provided with shoulders 3 to strengthen and support the rim. Filling-pieces 4 are used to strengthen the spokes and to form a solid hub for the pulley. The connecting-bolts 5 pass through the spaces 6 between the spoke members. The pulley is first built up in one solid piece, including rim and spokes. It is then sawed in two, one cut being made on the radial line 7 through the middle of the spoke members at one side of the pulley and two cuts 8 parallel with the edges of the spoke members and tangent to a central opening 9 being made at the other side of the pulley. The central circular opening 9 is made to receive the shaft, and the pulley is thus severed into three parts, including two main sections and an intermediate block 10. The distance between the lines 8 8 is preferably equal to the diameter of the opening 9, and the pulley may therefore be placed on or removed from a shaft without separating the two main sections, it being only necessary to remove the block 10 and slightly loosen the bolt at the other side of the pulley. The block 10 is preferably held in proper adjustment by dowel-pins 11, and one or more dowel-pins 12

are also provided at the opposite side of the pulley.

It will be seen that the construction of my improved pulley is remarkably cheap and simple and at the same time strong and durable. The spoke members are wide and securely attached to the rim. The number of spoke members will depend on the width of the pulley, two being preferably used for narrow pulleys and three or more for wider pulleys. No bolt-holes are required to be bored, and the elongated openings between the spokes permit of the easy insertion of the bolts. To facilitate the insertion of the bolts, the filling-blocks 4 may be octagonal, as indicated in Fig. 1.

By making the filling-blocks in the form illustrated a relatively wide space is provided between the rim and the blocks at the edges of the spokes and it is possible to introduce the bolts 5 into the spaces or slots between the spoke members while in an inclined position and after they have been partially introduced to move them in the slots into the position transverse of the spokes illustrated in drawings. It will be seen that the bolts are of greater length than the distance between the spokes of either main section of the pulley and the rim portion of that section, and therefore it would be quite troublesome, if not practically impossible, to place said bolts in operative position unless the filling-blocks were made in the form above described.

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

1. A wood pulley comprising a sectional rim and a plurality of parallel spoke members having their ends embedded in and forming part of the rim, said pulley having a central opening and being divided into three parts by a radial line extending along the middle of the spoke members on one side of said central opening and two parallel lines extending along the spoke members at the other side of said opening, said spokes having elongated openings to receive bolts, and suitable bolts passing through said openings.

2. A wood pulley comprising a rim 1, spoke members 2 securely embedded in the rim at their ends, and separated to provide bolt-openings, a filling-piece 4 between each pair of spoke members, and bolts extending through openings between said filling-pieces and the rim, the said pulley being divided at one side upon a radial line extending from a central

opening through the middle of the spoke members, and on the other side of the pulley upon lines extending through and parallel with the spoke members and tangential to the central opening.

3. A wood pulley comprising a sectional rim and spokes arranged diametrically within the rim, said pulley having a central opening to receive a shaft and being divided upon a single line through the spokes and rim at one side of said opening and upon two parallel

lines through the spokes and rim at the other side of said opening, and being provided with bolts upon opposite sides of the opening for connecting the several pulley-sections securely together and to a shaft.

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

JAMES ESTEP SWINEFORD.

Witnesses:

C. W. GARVER,

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