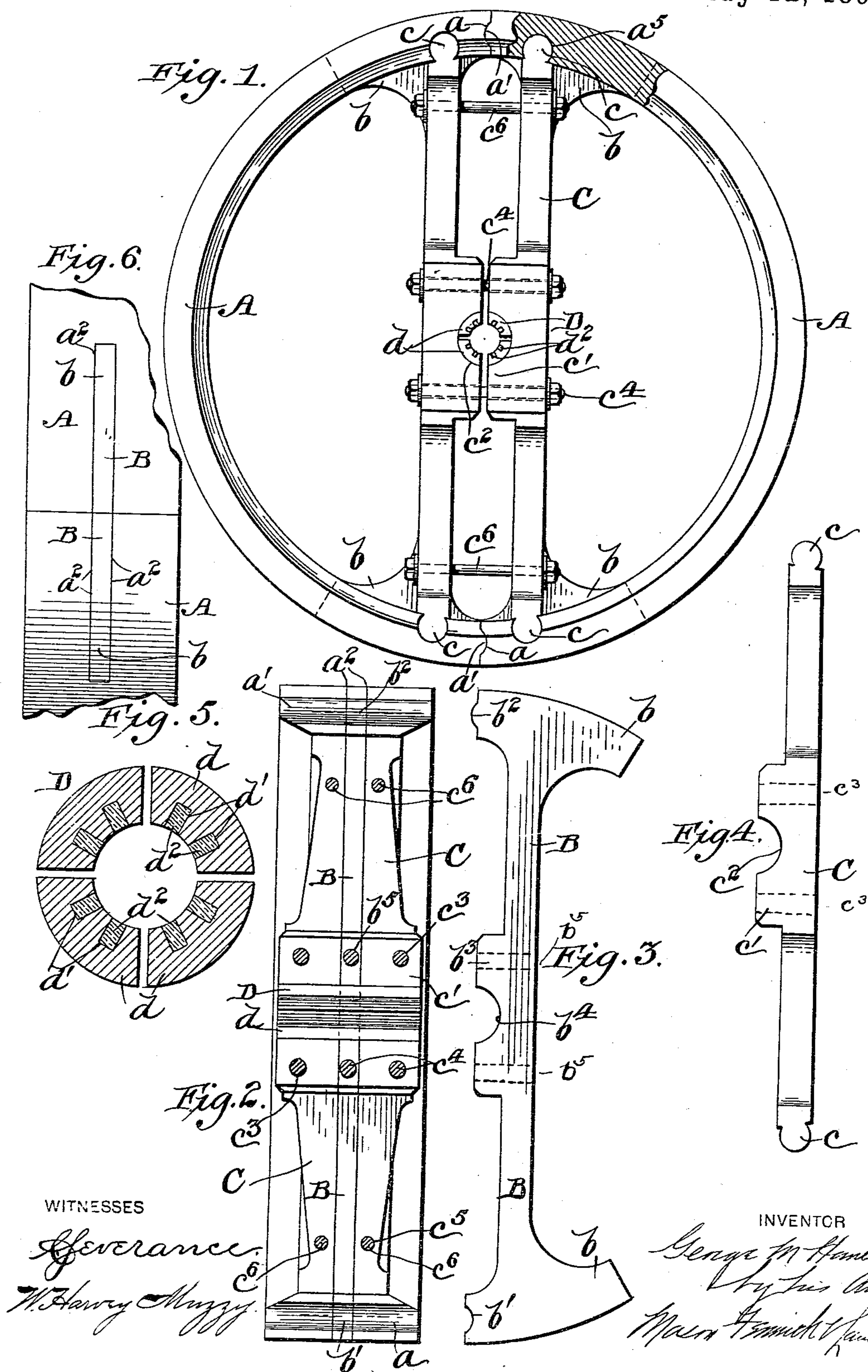


(No Model.)

G. M. HANCOCK.
SPLIT PULLEY.

No. 560,159.

Patented May 12, 1896.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE M. HANCOCK, OF PORTLAND, OREGON, ASSIGNOR TO THE HANCOCK PULLEY COMPANY, OF SAME PLACE.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 560,159, dated May 12, 1896.

Application filed July 17, 1895. Serial No. 556,250. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. HANCOCK, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Split Pulleys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in split pulleys; and it consists of the combination, with a divided rim, of web portions diametrically connecting the same and extending on each side to the outer periphery of the rim, and brace-bars provided with tenon ends which engage the rims.

It also consists of certain other novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a side elevation of a pulley embodying my invention. Fig. 2 represents a central vertical transverse section through the same. Fig. 3 represents a detail side elevation of one of the strengthening-webs connecting the rims. Fig. 4 represents an end elevation of one of the brace-bars. Fig. 5 represents a detail central vertical transverse section through my improved bushing, and Fig. 6 represents a detail top plan view of said pulley.

A in the drawings represents the split rim of the pulley; B B, the strengthening-webs; C C-C C, the brace-bars, and D the bushing. The abutting ends of the rim are mortised and tenoned, as at $a\ a'$, so as to fit snugly together and prevent lateral movement one upon the other when they are drawn together. Each end of each half of the split ring is provided with a central slot a^2 to accommodate one of the segmental ends b of the strengthening-webs, said webs being secured in position with the peripheries of their segmental portions b flush with the periphery of the rim by nailing and gluing. The abutting ends of said segmental portions are mortised and tenoned, as at $b'\ b^2$, so that they fit snugly together in a similar manner to the rim when the latter is put together.

Each of the webs B is provided at its middle with an enlargement b^3 , having a semicircular recess b^4 , said recess, when the two webs are together, forming a passage through which the bushing D may be passed, and thus secured in position. The enlargements b^3 are provided with lateral bolt-passages b^5 , through which bolts can be passed to secure them together.

The brace-bars C C are placed on each side of each web B and are each provided at each end with a circular tenon c , said tenons being adapted to be slipped into similarly-shaped mortises a^5 in the rim and secured in position on each side of their respective web by gluing and nailing. Each of the brace-bars is provided with an enlargement c' , similar in shape to the enlargements b^3 , and having a semicircular recess c^2 . When the brace-bars are applied on each side of the webs, the enlargements b^3 and c' coincide, so as to have a cylindrical passage, in which the bushing D is secured. Each of the enlargements c' is provided with lateral bolt-passages c^3 , through which bolts c^4 are passed to secure the two parts of the pulley together on the shaft. The outer ends of the brace-bar are also provided with bolt-passages c^5 , through which bolts c^6 are passed to assist in binding the two halves of the pulley firmly together and onto the shaft.

The bushing D is composed of a plurality of segmental blocks d , preferably of wood, which when applied in the passage left for the bushing are spread slightly apart to allow the shaft to which the pulley is to be applied to pass through them. These blocks are provided upon their inner faces with longitudinal grooves d' , in which is placed a frictional packing d^2 of paper or other suitable material. By means of this bushing the wheel can be quickly and firmly clamped upon a shaft and will not slip upon the same, because the said frictional material when under pressure conforms to the exact shape of the shaft and closely binds the same, with a consequential increase of friction between the two over the friction offered by stiff non-conforming packing.

It will be seen from the foregoing that the wheel is applied on a shaft by placing the two

halves on the respective sides of the shaft and then inserting and tightening the bolts c^4 and c^6 , thus binding the halves together and on the shaft at the same time.

5 By my construction of the webs extending from periphery to periphery of the respective halves of the rim and through slots therein I brace the said ends of each half against lateral displacement or buckling, which is very
10 liable to occur in pulleys of the split class. The said webs, by extending to the periphery at each end of each half, take the strain from the belt, and thus prevent it falling onto said ends of each half, which ends are the weak-
15 est part of the pulley. The segmental ends of the said webs, by extending to the periphery, brace the pulley in the direction of its rotation, as the rotary strain exerted on the rim by the belt is thrown upon the said seg-
20 mental heads and webs at the very point where it is most needed—*i. e.*, the adjoining ends of the two halves of the pulley. The brace-bars also brace the rims and prevent them from flying apart or spreading, as the
25 tenon ends of the same cannot pull out.

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

30 1. In a split pulley, the combination with a divided rim, of web portions diametrically connecting the respective halves of the same and extending on each side to the periphery of the rim, brace-bars provided with tenon ends which engage the respective halves of
35 said rim, and means for connecting the re-

spective halves of the pulley, substantially as described.

2. In a split pulley, the combination with a divided rim having segmental slots, web por-
40 tions having segmental ends secured in said slots flush with the periphery of the rim, and brace-rods provided with tenon ends which engage the respective halves of said rim, and means for connecting the respective halves
45 of the pulley, substantially as described.

3. In a split pulley, the combination with a divided rim having mortises, of web por-
50 tions diametrically connecting the respective halves of the rim and extending on each side to the periphery of the same, brace-rods provided with semicircular tenons which are fitted into the mortises of the respective halves
55 of the rim, and means for connecting the respective halves of the pulley, substantially as described.

4. In a split pulley, the combination with a divided rim having segmental slots and mor-
60 tises, web portions having segmental ends secured in said slots flush with the periphery of the rim, and brace-rods provided with semicircular tenons which are fitted into the mortises of the respective halves of the rim, and bolts for connecting the respective halves
65 of the pulley, substantially as described.

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

GEORGE M. HANCOCK.

Witnesses:

C. C. WELLS,
J. L. WELLS.