

(No Model.)

E. T. SHEPARD.
PULLEY.

No. 487,454.

Patented Dec. 6, 1892.

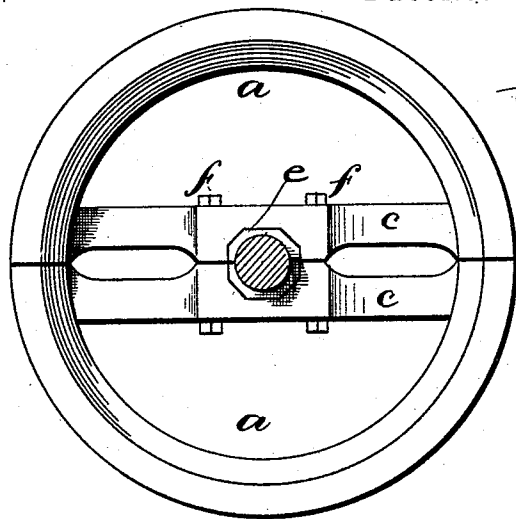


Fig. 1.

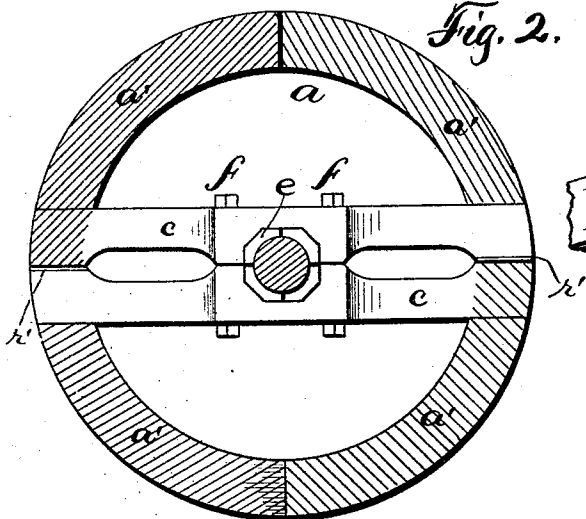


Fig. 2.

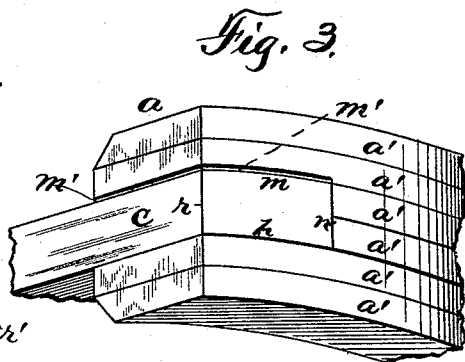


Fig. 3.

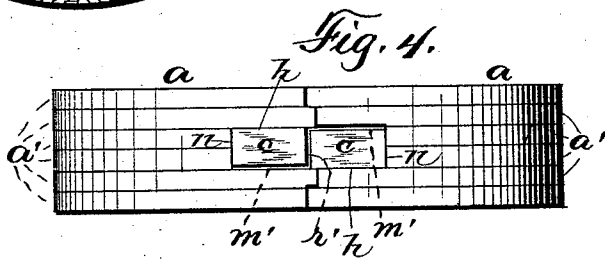


Fig. 4.

WITNESSES:

H. A. Carhart
C. B. Kinn

INVENTOR.

Edgar T. Shepard

BY

Smith & Denison
his ATTORNEY

UNITED STATES PATENT OFFICE.

EDGAR T. SHEPARD, OF FULTON, NEW YORK.

PULLEY.

SPECIFICATION forming part of Letters Patent No. 487,454, dated December 6, 1892.

Application filed February 23, 1892. Serial No. 422,404. (No model.)

To all whom it may concern:

Be it known that I, EDGAR T. SHEPARD, of Fulton, in the county of Oswego, in the State of New York, have invented new and useful
5 Improvements in Pulleys, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to split pulleys, and
10 particularly to the means provided for permitting the expansion and contraction of the ends of the cross-beams which are within the pulley-rim without damage to the rim.

My object is to secure only two of the lateral faces of the cross-beams to the layers of
15 which the rim is made up, said ends being laid up in said rim when the layers are laid up, leaving the other two sides or lateral faces of said ends unconnected to anything later-
20 ally and not in contact with the adjacent layer nor in contact with the lateral face of the adjacent cross-beam, so that these two faces are free to take up all of the lateral expansion and
25 contraction of the ends of the beams from dampness or dryness without disturbing the fastenings by which the rim-layers are secured to the two lateral faces of said cross-beams or the fastenings by which the rim-
30 layers are secured together adjacent to the ends of said cross-beams. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the pulley complete. Fig. 2 is a vertical diametrical section of the pulley. Fig. 3 is an enlarged plan
35 perspective of part of a cross-beam and part of a rim-section, showing one lateral face of the cross-beam detached from and not connected to the rim-layer above it. Fig. 4 is a
40 top plan of the pulley, showing the opening between the adjacent lateral faces of the cross-beams and also between a lateral face of each cross-beam and the adjacent rim-layer.

The pulley consists of the rim-sections *a a*, each of semicircular form and built up of
45 layers *a'*, and the extremities of the rim-sections are connected by cross-beams *c*. A bushing *e* is mounted in the cross-beams, and bolts
50 *f* secure said beams and the pulley-sections together. The rectangular ends of the cross-beams are laid up or into the rim-sections at
55 their extremities, the lateral faces *h* and *n* being secured to the adjacent rim-layers, leaving the face *m* wholly unsecured to and disconnected from the adjacent rim-layers, said
60 face of the cross-beam being cut away, or the inner face of the adjacent layer being cut away, leaving the space *m'* between the beam and the layer. Further, the lateral faces *r* of
65 the cross-beams are cut away or reduced, so as to leave a space *r'* between them when the cross-beams are secured together.

In the ordinary construction of pulleys there are no spaces *m'* or *r'*, and consequently there is no opportunity for the lateral expansion
65 and contraction of the ends of the cross-beams, while in my construction those spaces permit such expansion and contraction of the ends of the cross-beams.

What I claim as my invention, and desire
70 to secure by Letters Patent, is—

In a split pulley, the combination, with the rim-sections composed of layers, of the cross-beams having two of their faces secured to
75 the rim-layers and the other two unsecured to the rim, leaving spaces between the adjacent faces of the ends of the cross-beams, a central bushing in said cross-beams, and means
80 for securing said beams together adjacent to said bushing.

In witness whereof I have hereunto set my hand this 2d day of February, 1892.

EDGAR T. SHEPARD.

In presence of—

HOWARD P. DENISON,
C. W. SMITH.