

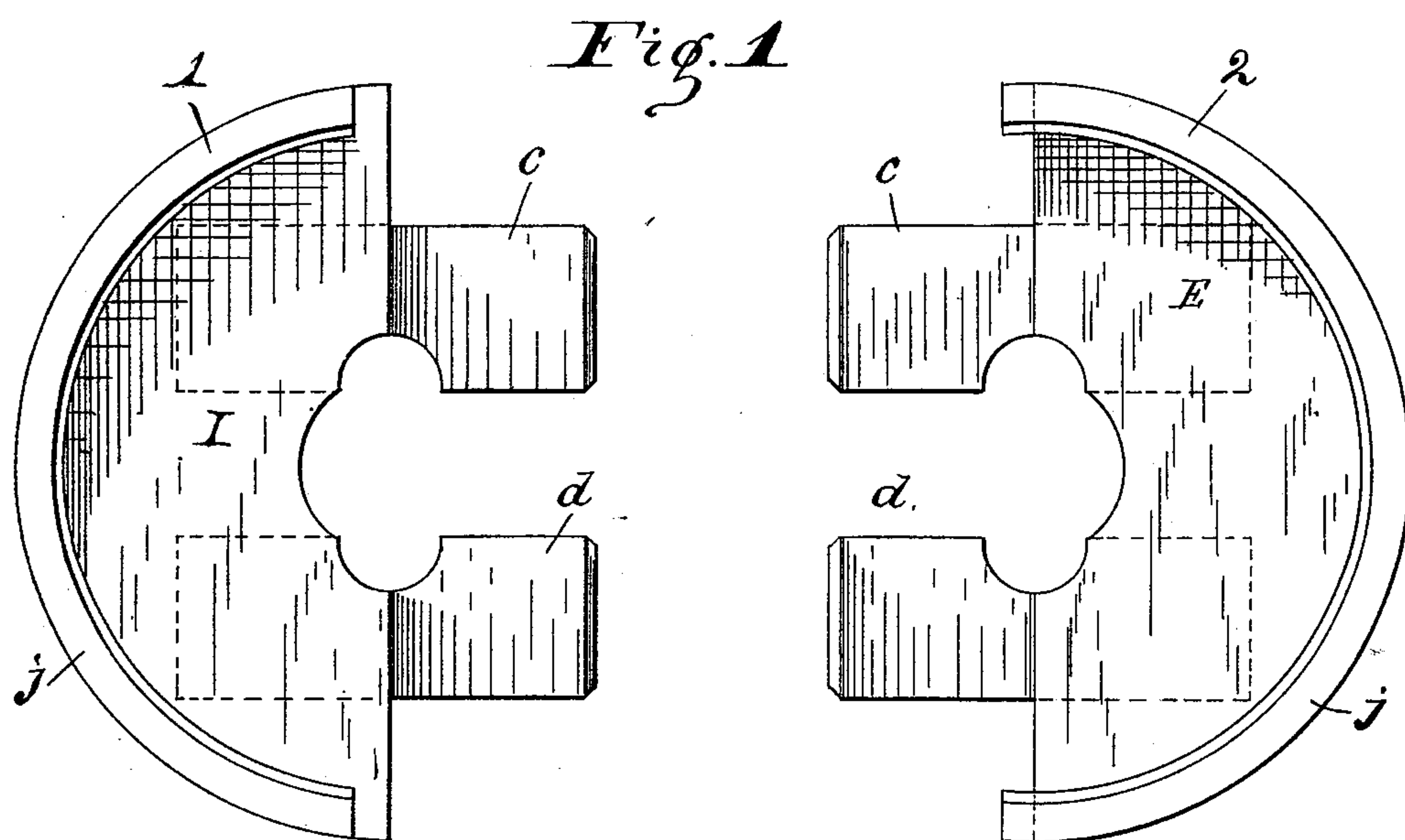
(No Model.)

2 Sheets—Sheet 1.

M. T. & M. O. REEVES.
SPLIT PULLEY.

No. 403,857.

Patented May 21 1889.



Witnesses.
A. M. Hood,
F. L. McEahan

Inventors.
Marshal T. Reeves,
Milton O. Reeves.
By H. P. Hood,
Attorney

(No Model.)

2 Sheets—Sheet 2.

M. T. & M. O. REEVES.
SPLIT PULLEY.

No. 403,857.

Patented May 21 1889.

Fig. 7.

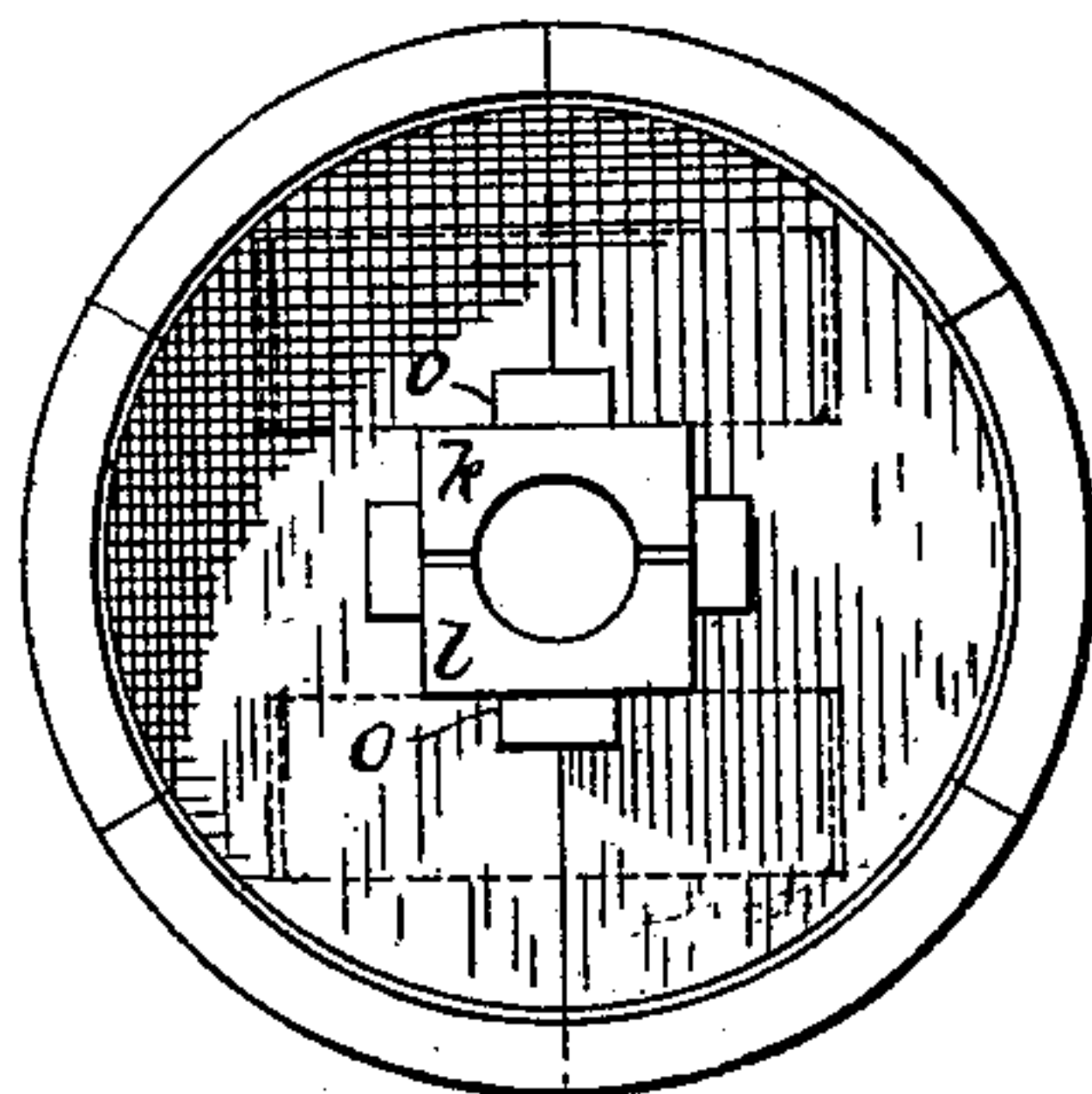


Fig. 4.

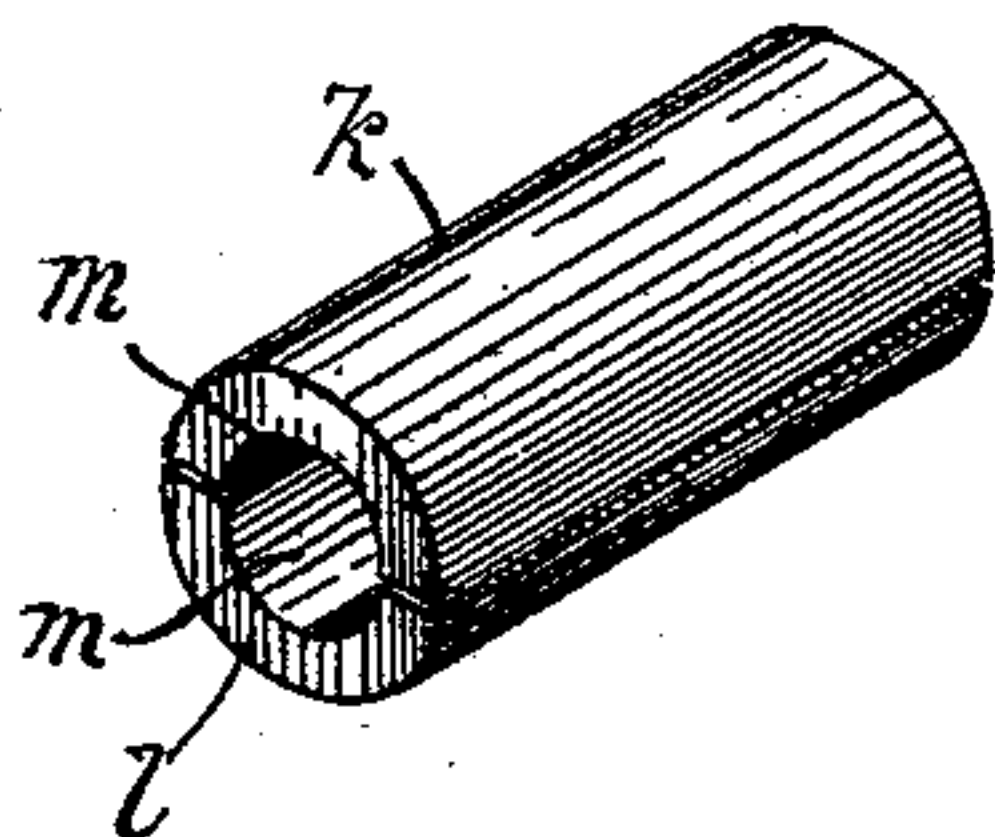


Fig. 5.

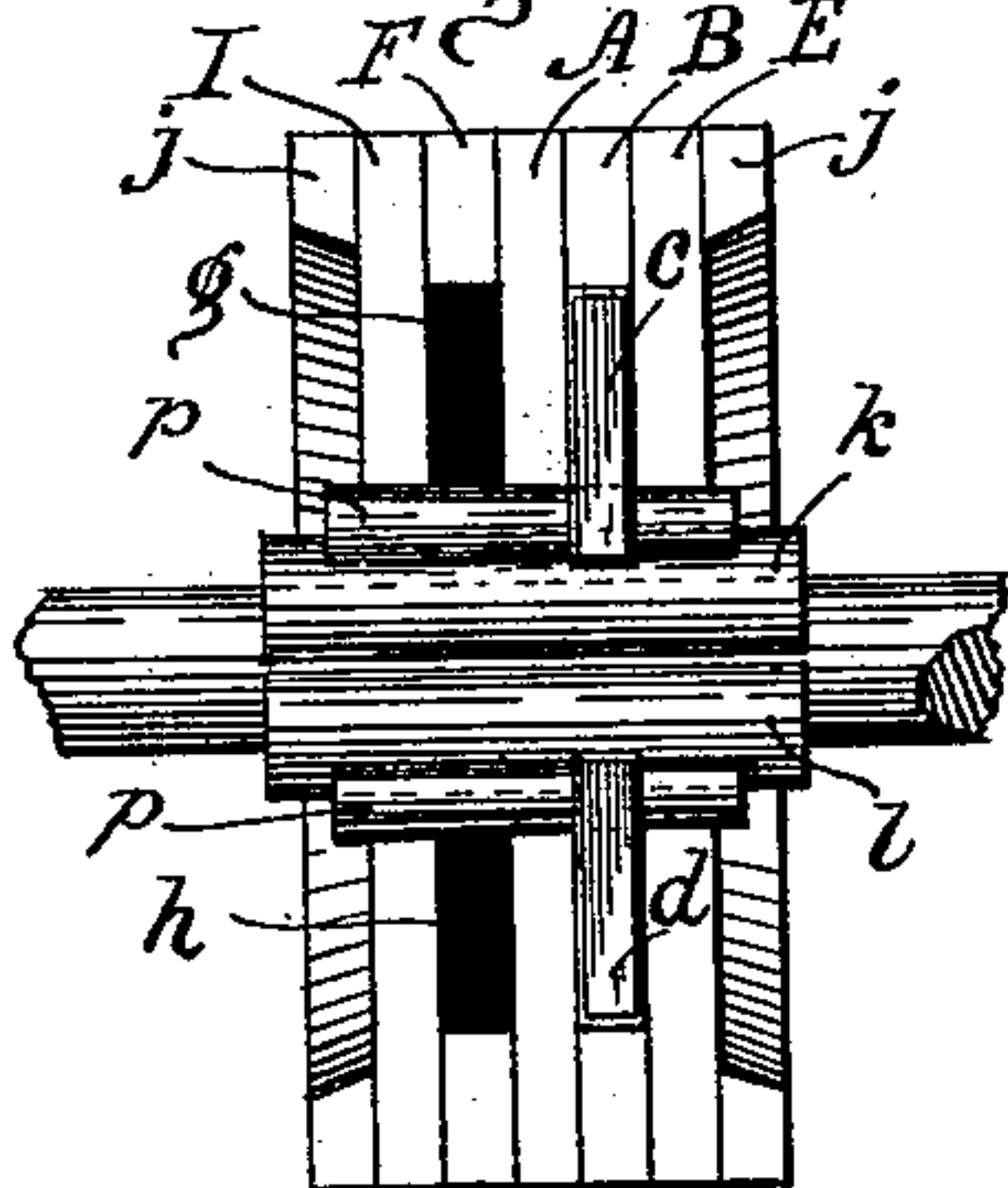


Fig. 6.

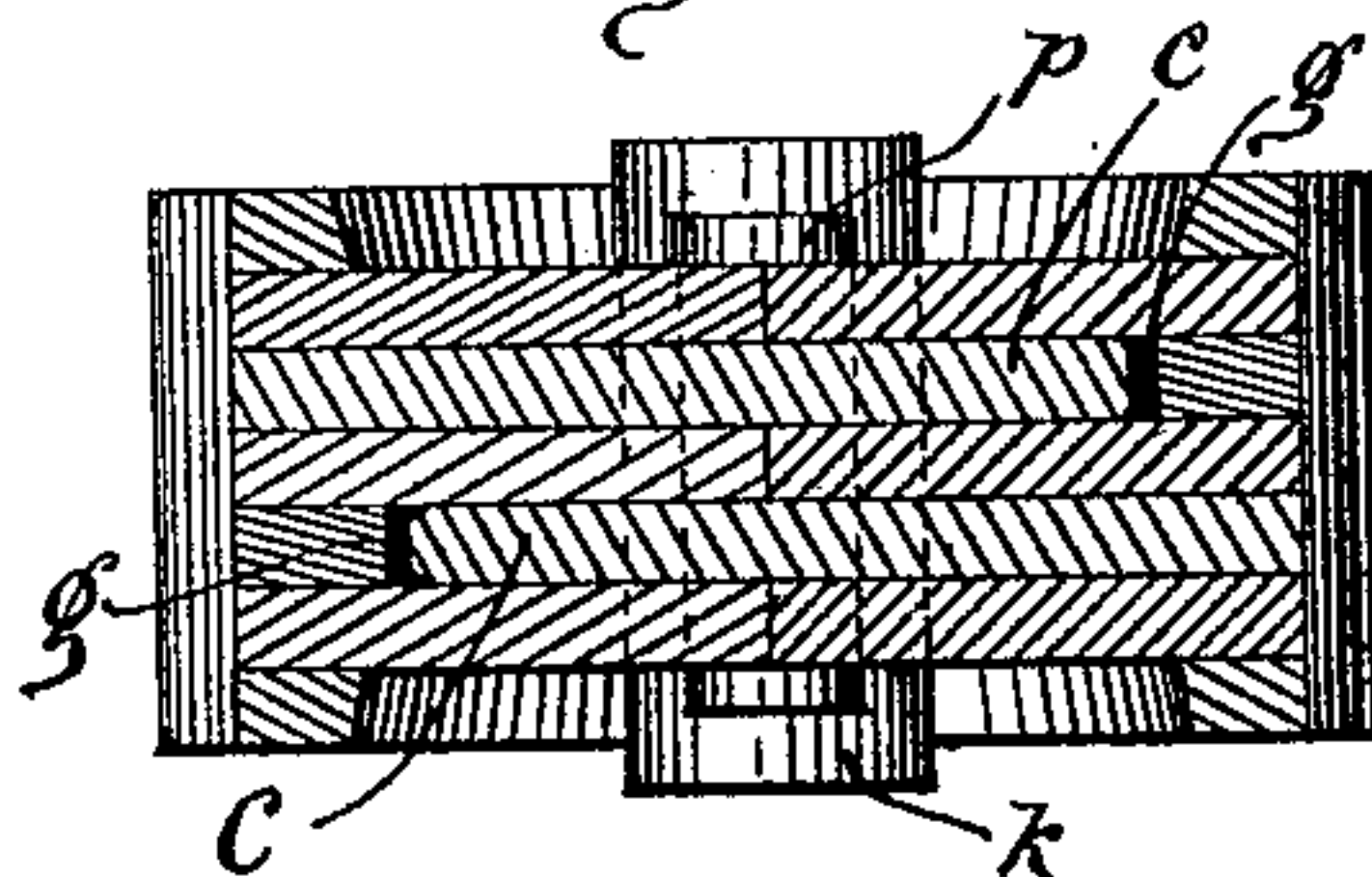


Fig. 2.

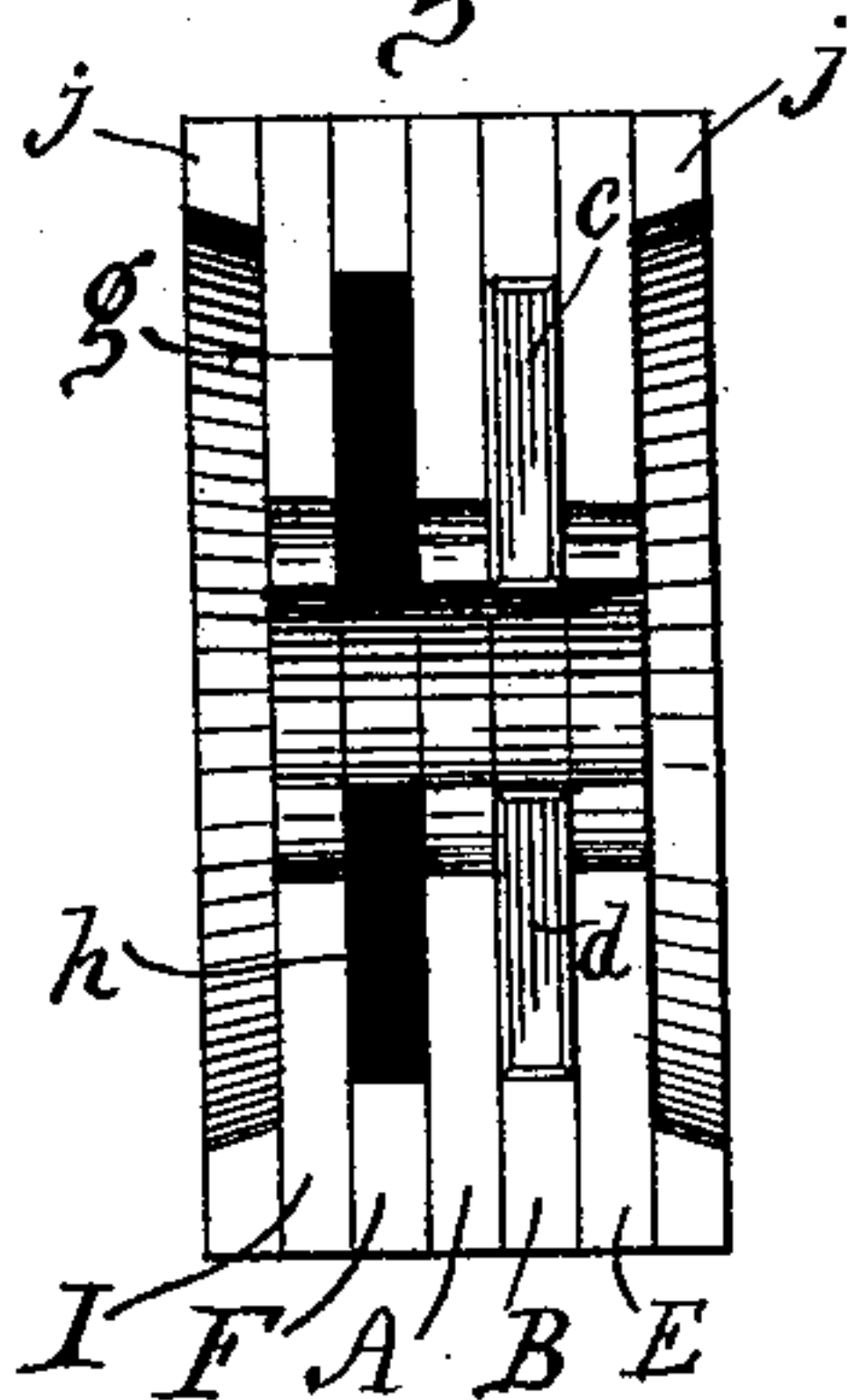
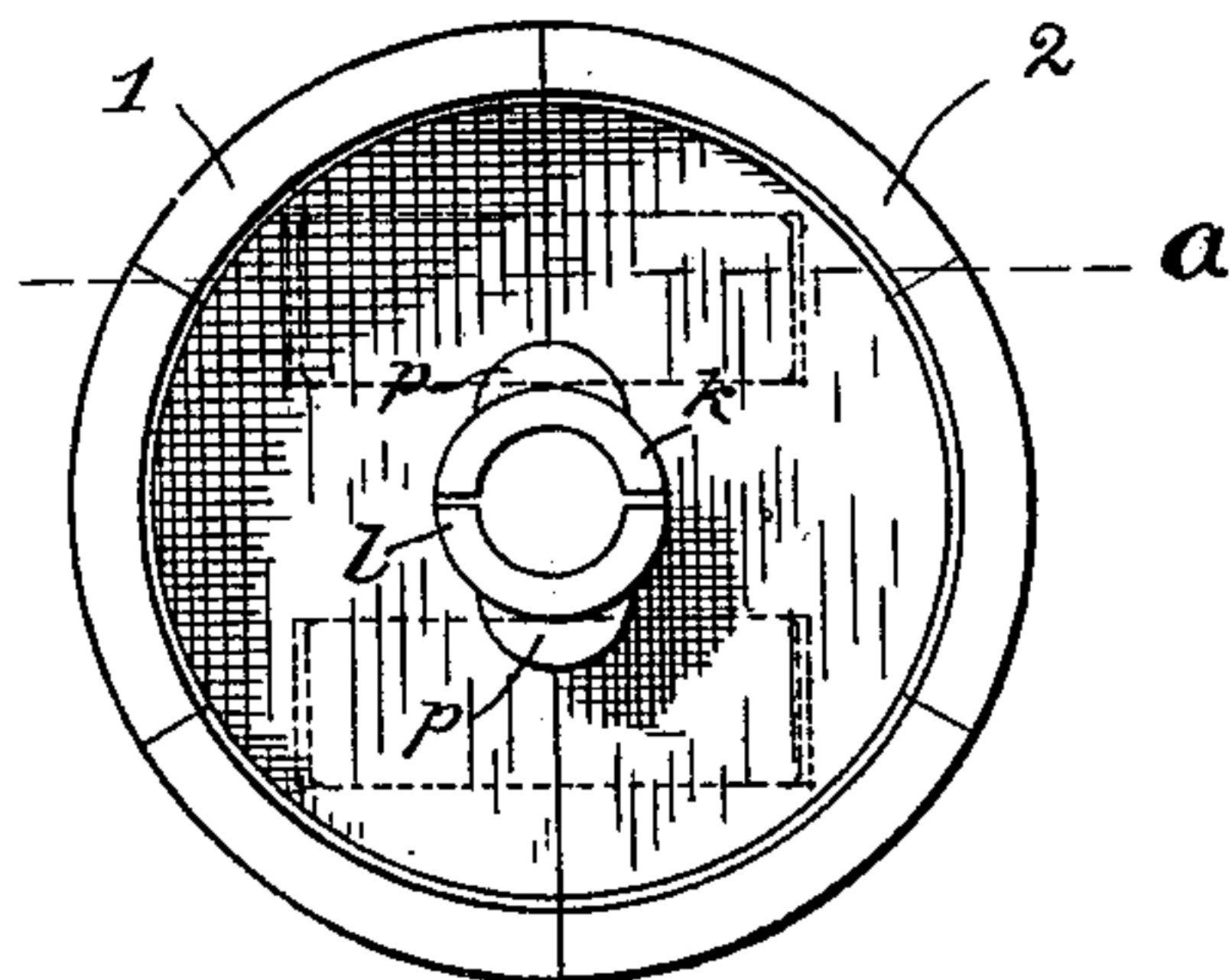


Fig. 3.



Witnesses,
V. M. Hood,
A. M. Hood

Inventors,
Marshal T. Reeves,
Milton O. Reeves.

By H. P. Hood
Attorney

UNITED STATES PATENT OFFICE.

MARSHAL T. REEVES AND MILTON O. REEVES, OF COLUMBUS, INDIANA,
ASSIGNORS TO THE REEVES PULLEY COMPANY, OF SAME PLACE.

SPLIT PULLEY.

SPECIFICATION forming part of Letters Patent No. 403,857, dated May 21, 1889.

Application filed September 24, 1888. Serial No. 286,209. (No model.)

To all whom it may concern:

Be it known that we, MARSHAL T. REEVES and MILTON O. REEVES, citizens of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented a new and useful Improvement in Split Pulleys, of which the following is a specification.

Our invention relates to an improvement in that class of belt-pulleys which are made of wood built up in a series of segments to form semi-cylindrical sections, having on their opposed edges corresponding projections and recesses, by means of which, together with suitable fastenings, the two sections may be secured together upon a shaft without removing other pulleys.

The objects of our improvement are to so arrange the interlocking portions of the two semi-cylindrical sections that a strain upon one section will be directly transmitted to the other; and to provide improved means for securing the two sections together and at the same time keying the pulley to the shaft, all as hereinafter fully described.

The accompanying drawings illustrate our invention.

Figure 1 represents a side elevation of the two semi-cylindrical sections of our pulley separated; Fig. 2, an edge view of the same; Fig. 3, a side elevation of the complete pulley; Fig. 4, a view in perspective of the bushing or hub; Fig. 5, an edge view on the line of division of the two sections, showing the bushing in position on a shaft; Fig. 6, a section of the complete pulley at *a*, Fig. 3; and Fig. 7, a side elevation of a modified form of our pulley.

The two sections 1 and 2 which form the pulley, are of like form and construction. The web of each section of the pulley is built up of wood in the following manner: A semicircular segment, *A*, forms the center of the web. On one side of segment *A* a second segment, *B*, with its grain running at right angles to the straight edge of *A*, is secured, having its periphery flush with the periphery of *A*. Segment *B* is of sufficient length to form more than a semicircle of the same diameter as segment *A*, and it projects over the straight side

of said segment when secured thereto, so as to form a pair of tenons, *c* and *d*. On the outside of segment *B* a third semicircular segment, *E*, is secured, having its straight edge parallel with that of segment *A*. On the opposite side of segment *A* is secured a corresponding segment, *F*, having in its straight edge, on opposite sides of its center, two rectangular recesses, *g* and *h*, adapted to receive and fit closely the tenons *c* *d* of the other section. Outside of segment *F* is secured another segment, *I*, thus completing the thickness of the web. If greater width of face is required than is furnished by the peripheries of the above-described segments, additional annular segments, *j j*, may be secured to each side of the web until a sufficient width of face is attained.

The hub consists of two like pieces, *k* and *l*, each having a semi-cylindrical groove, *m*, adapted to fit the shaft to which the pulley is to be applied. The exterior of the hub may be rectangular, as shown in Fig. 7, or cylindrical, as shown in the other figures.

In practice hubs of the same external diameter, but having grooves of different diameter, will be kept in stock, so that to fit a pulley to a shaft of given size it will only be necessary to put in a hub having the proper grooves.

The two sections of the pulley having been put together, the tenons *c* *d* of one section entering the recesses *g* *h* of the other section, a central hole, *n*, adapted to receive and fit easily the exterior of the hub, is made through the web. A pair of keyways, *o o*, having slightly-tapering sides are now formed extending entirely through the web on opposite sides of the central hole and arranged on the line of separation of the two sections, so as to cut equally out of each section. Said keyways may be semi-cylindrical in section, as in Fig. 3, or rectangular, as in Fig. 7. Wedge-shaped keys *p p* are now fitted closely into the keyways, so as to clamp the two parts of the hub together.

It will be observed that the entire outline of each of the keyways is formed in the tenons *c* and *d* of each section of the pulley, and that therefore the keys can only be inserted

when the two sections have been put together, so that the keyways of each register with the other, and that the keys when in position, therefore, operate as pins to prevent the two sections from separating. By this construction the edges of the tenons *c* and *d*, being supported by the walls of the recesses into which they fit, the strain both of the belt and the wedge-shaped keys is equally distributed in the two sections. In the case of large shafts it is obvious that the hub may be omitted and the keys may lie directly against the shaft.

We claim as our invention—

1. A split pulley consisting of the following elements, namely: two substantially semi-cylindrical sections, each having tenons projecting from its straight side at one side of its central plane, and corresponding recesses arranged on the other side of said central plane, the recesses in one section being adapted to receive the tenons of the other section, each section having a central hole passing through the plane of the pulley at right angles thereto, and a keyway arranged on one side of said central hole communicating therewith and extending transversely through both sections and their tenons, and a key fitted to said keyway, all combined and arranged substantially as specified, whereby the two sections are held together to form a complete cylinder.

2. In a pulley, the combination of two like semi-cylindrical sections, each having tenons projecting from its straight edge, and corresponding recesses to receive said tenons, and having a central hole passing through the plane of said section at right angles thereto, and keyways arranged on opposite sides of the central hole, said keyways being formed partly in each of the sections and extending through said tenons, and wedge-shaped keys fitted in said keyways, and a split hub fitted in said central hole, all arranged to co-operate substantially as specified, whereby the two sections are held together so as to form a complete cylinder, and the parts of the split hub are at the same time clamped together.

3. A belt-pulley having a central hole passing through the plane of the pulley at right angles thereto, and having a keyway formed therein at one side of said central hole and communicating therewith, a wedge-shaped key fitted in said keyway, and a split hub mounted in said central hole.

MARSHAL T. REEVES.
MILTON O. REEVES.

Witnesses:

WM. A. ABBETT,
B. M. HUTCHINS.