

(No Model.)

T. O'NEILL.
SHEAVE.

No. 445,818.

Patented Feb. 3, 1891.

Fig. 1.

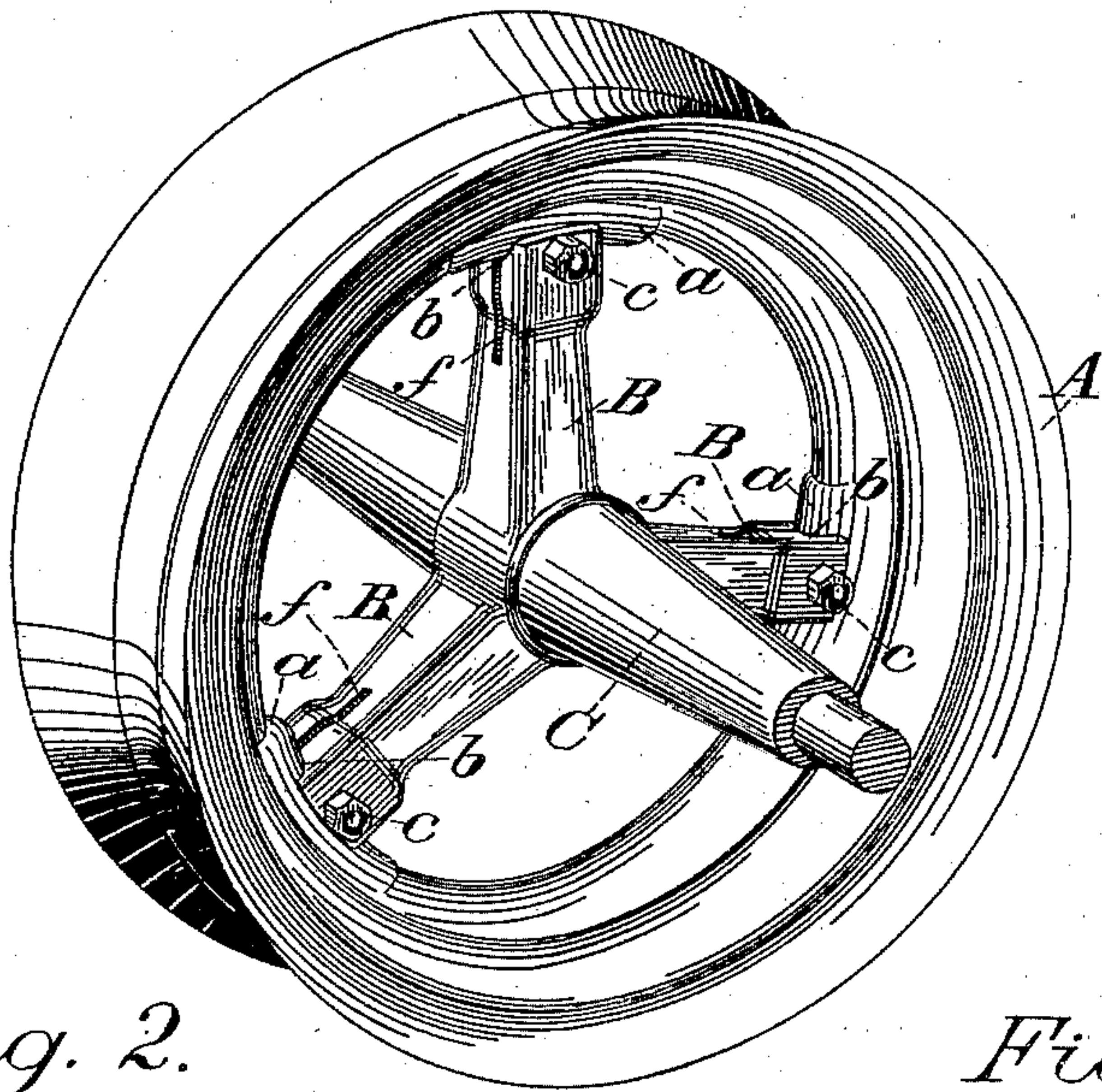


Fig. 2.

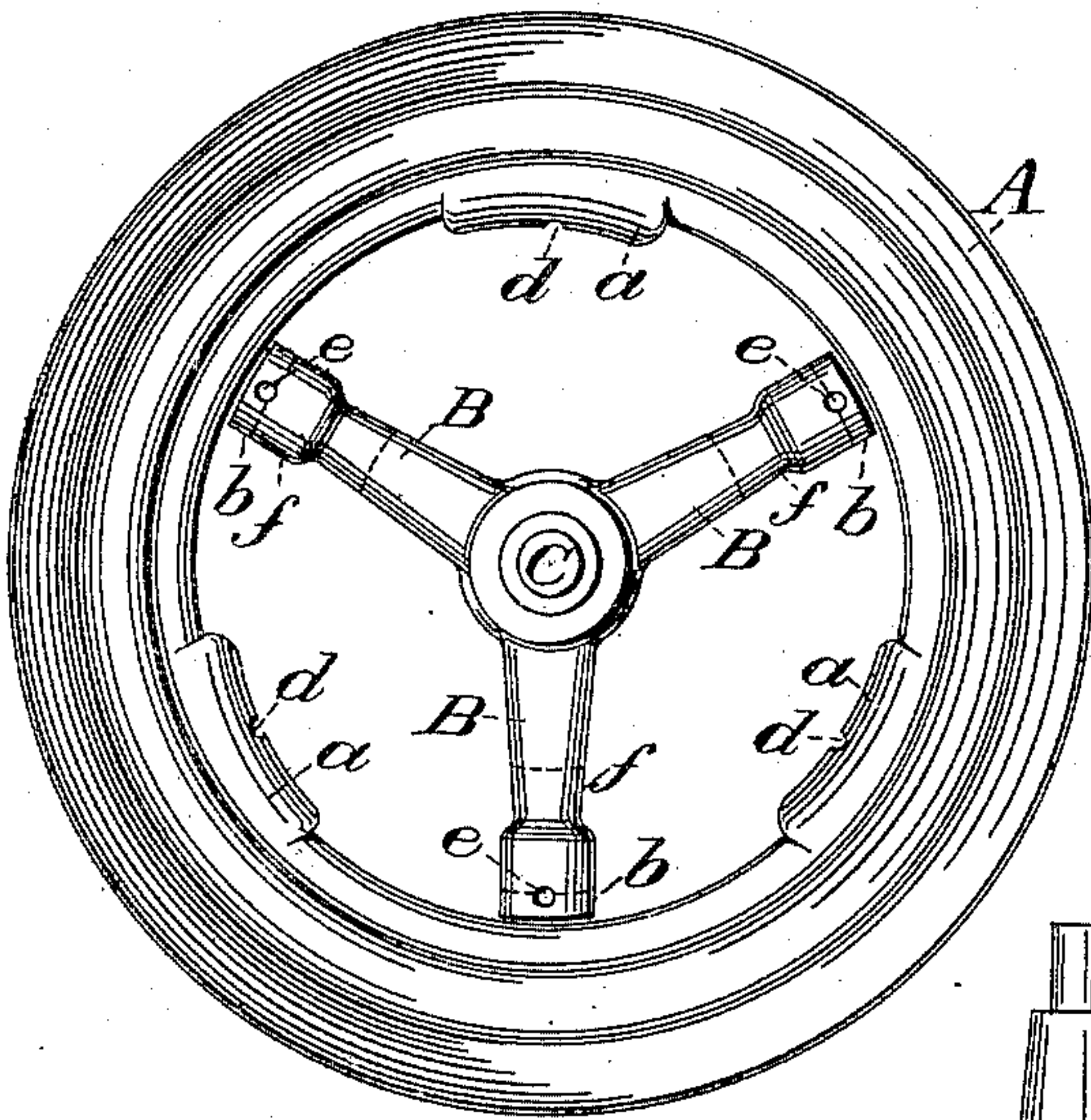


Fig. 3.

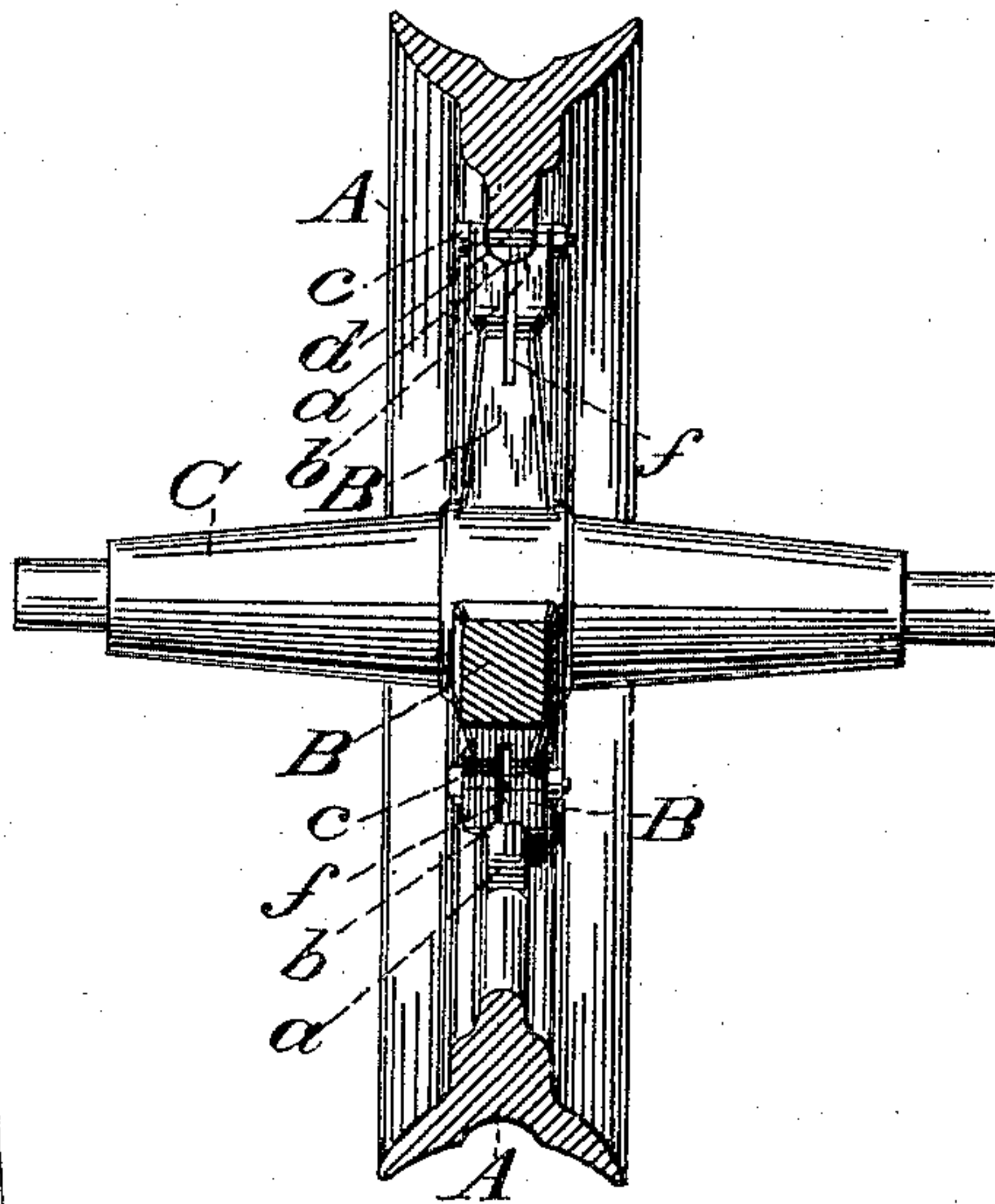
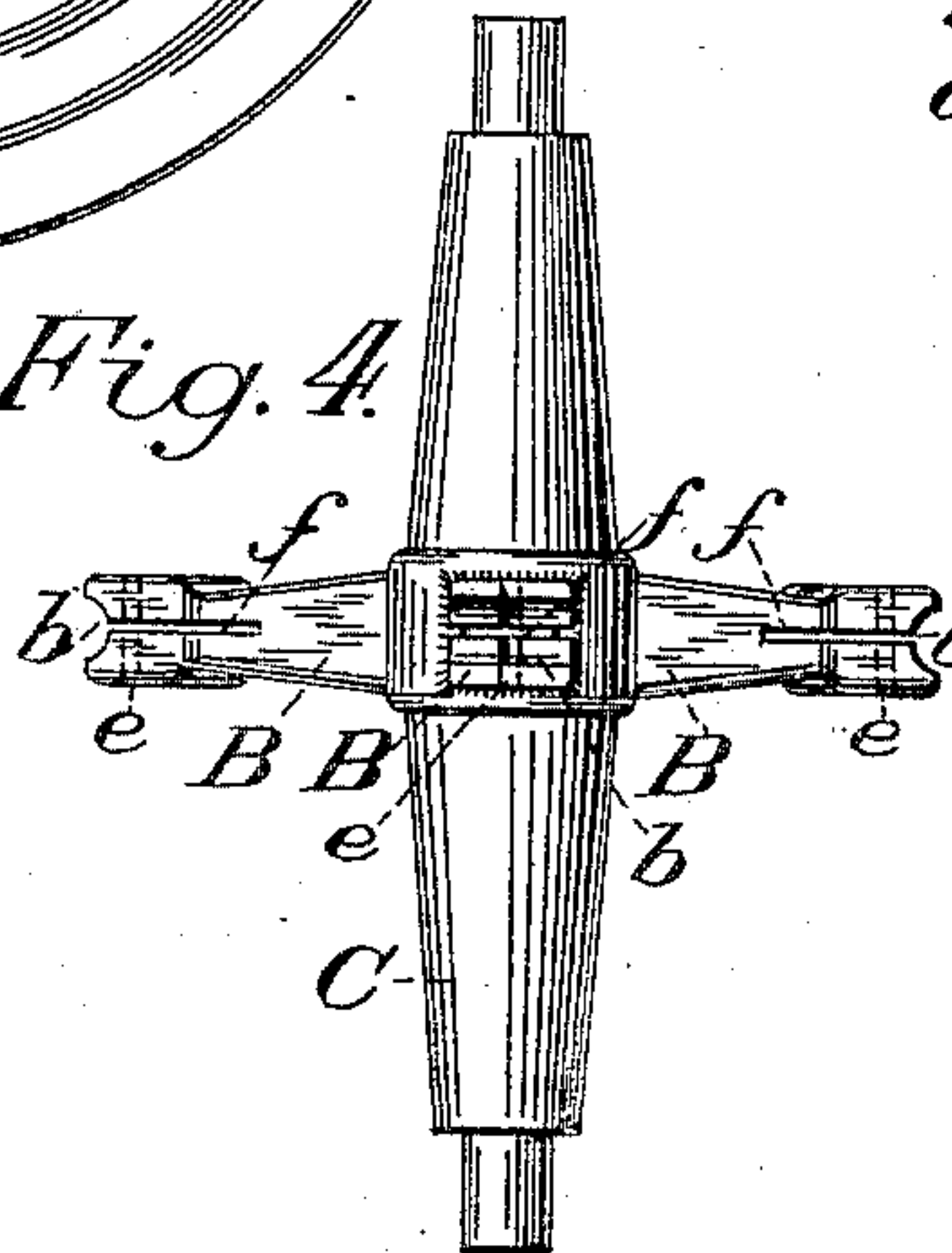


Fig. 4.



Witnesses:

Geo. H. Perry
William H. Busch

Inventor:

Thomas O'Neill

UNITED STATES PATENT OFFICE.

THOMAS O'NEILL, OF SAN FRANCISCO, CALIFORNIA.

SHEAVE.

SPECIFICATION forming part of Letters Patent No. 445,818, dated February 3, 1891.

Application filed August 14, 1889. Serial No. 320,790. (No model.)

To all whom it may concern:

Be it known that I, THOMAS O'NEILL, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a certain new and useful improvement in sheaves (wheels) used in carrying the wire cable employed in drawing cars and in carrying wire cable for other purposes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The continuous wear of the wire cable upon the concave rims of the sheaves in use soon renders them useless. The sheave, however, may be cast in two parts—viz., the rim as one part and the arms (or spokes) and axle the other part—and these two parts may be joined together for use, forming a sheave, but with a rim that may be detached from the said arms and axle, (the other part,) so that when said rim is worn out by use it may be removed, leaving the said second part (the arms and axle) in a perfect condition to receive a new rim.

My invention relates to improvements for the more complete adjustment of these two parts of the sheave to each other—viz., the said rim to the said arms and axle. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the sheave, having all parts in adjustment for use. Fig. 2 is an end view with the arms in position to slide into place upon inclined projections on the inner wall of the rim; Fig. 3, a vertical section of a sheave. Fig. 4 shows the arms and axle.

Similar letters refer to similar parts throughout the several views.

The letter A represents the rim of the sheave, and *a a a* the inclined projections cast upon the under side or inner wall of the said rim, of which there may be three or more, upon which the ends of the arms B B B slide and are made fast, as illustrated in Fig. 1. The arms B B B, extending from the axle C in Fig. 2, have depressions in their ends, which depressions are clearly shown in Figs. 3 and 4, (marked *b b b*), and are so made as to fit tightly upon the inclined projections *a a*

a on the inside of the rim A, designed to firmly secure them. The arms B B B have a split *f f* in them, as shown in Fig. 4, extending from the depressions *b b b* part way downward toward the axle C. The object of said splits *f f* in the arms B B B is to obviate any variations that may occur in the rim A and the inclined projections *a a a* upon the inner wall of said rim caused by casting or the cooling off of the casting. By reason of the splits *f f* in the arms B B B the arms are made to accommodate themselves to said variations in fitting themselves to the rim A when crowded upon the inclined projections *a a a*, which they could not do if cast solid without the splits *f f f* in them. The arms B B B, when adjusted to the projections *a a a*, are held in place by bolts or keys *c c c*, as shown in Fig. 1, which bind the split arms B B B at the points of depression *b b b* more firmly to the projections *a a a*, securing the arms B B B immovably to the rim A. Each projection *a a a* has a notch in it, (marked *d d d*), as shown in Fig. 2. There may be one or more of these notches on the said projections *a a a*, so arranged as not to space equally upon the circle of the inner wall of the rim A, so that when the arms B B B slide into place upon the projections *a a a* in fitting them to the rim A some one or more of these notches *d d d* will be sure to come in line and coincide with the holes *e e e* marked in Fig. 2 and located near the extremities of and on the sides of the arms B B B and running at right angles to the depressions *b b b* in said arms. Into said notches *d d d* in the said projections *a a a* bolts or keys *c c c*, as shown in Fig. 1, may be driven through the holes *e e e* when the ends of the arms B B B are crowded upon the projections *a a a*, so that the holes *e e e* and the notches *d d d* coincide with each other for said purpose. Said projections *a a a* are so arranged upon the said inner wall of rim A as always to insure a perfect center of the axle C with the rim A.

I do not claim, broadly, spokes having split and recessed ends adapted to be clamped upon a flange on the inner periphery of the rim; but

What I do claim is—

1. In a sheave-pulley, the combination of an axle and spokes formed integral therewith

and having their extremities recessed, substantially as described, with a rim having inwardly-extending tapered or inclined projections on its inner face which engage and
5 wedge in the recessed ends of the spokes, and thereby bind the rim to the spokes, substantially as described.

2. The herein-described sheave, consisting of the rim having a series of inclined or tapered projections *a* on its inner face, in com-

15 bination with a hub, the spokes connected thereto and having recesses *b* in their ends adapted to engage the projections *a*, and the bolts *c* for locking the spokes to said projections, all constructed and arranged to operate substantially as and for the purpose specified.

THOMAS O'NEILL.

Witnesses:

JAS. DALY,
J. H. BLOOD.