(No Model.)

O. R. OLSEN.

PULLEY.

No. 305,840. Patented Sept. 30, 1884.

Fig. 1.

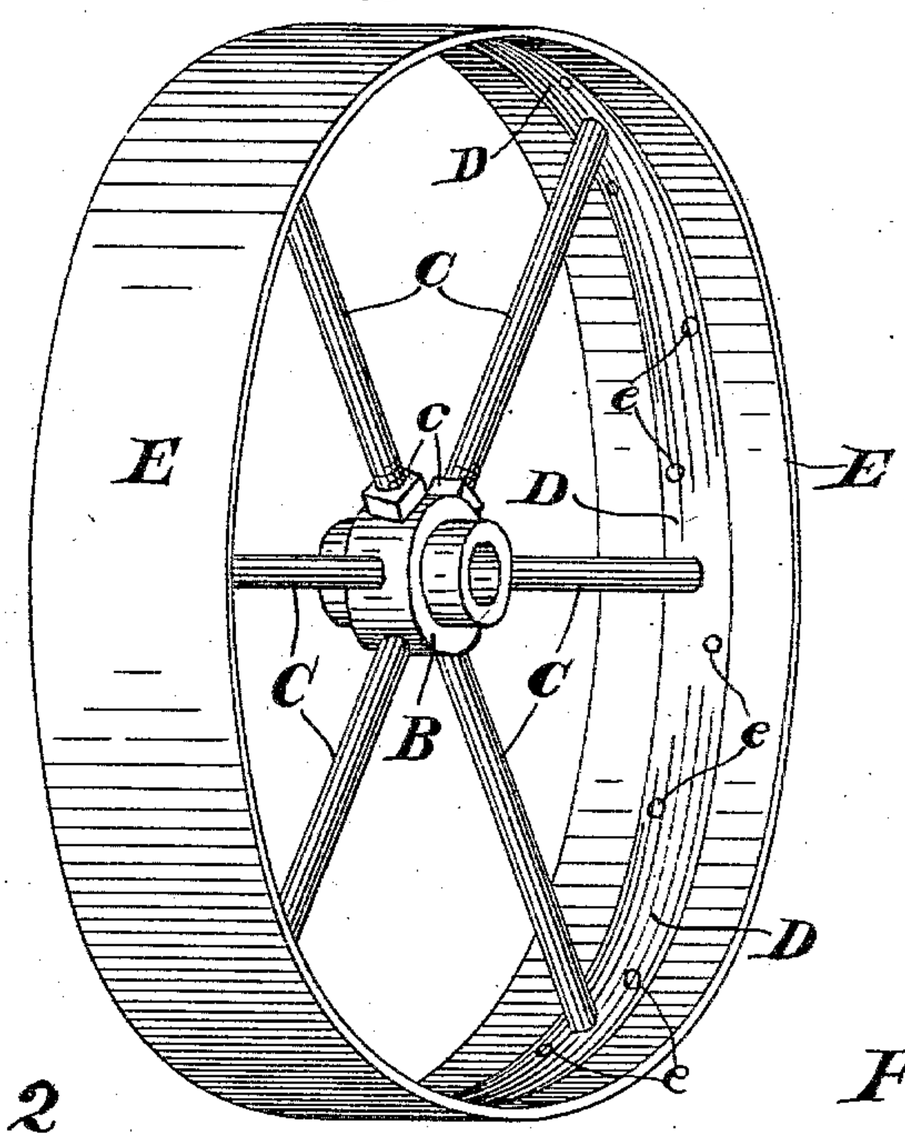


Fig. 2

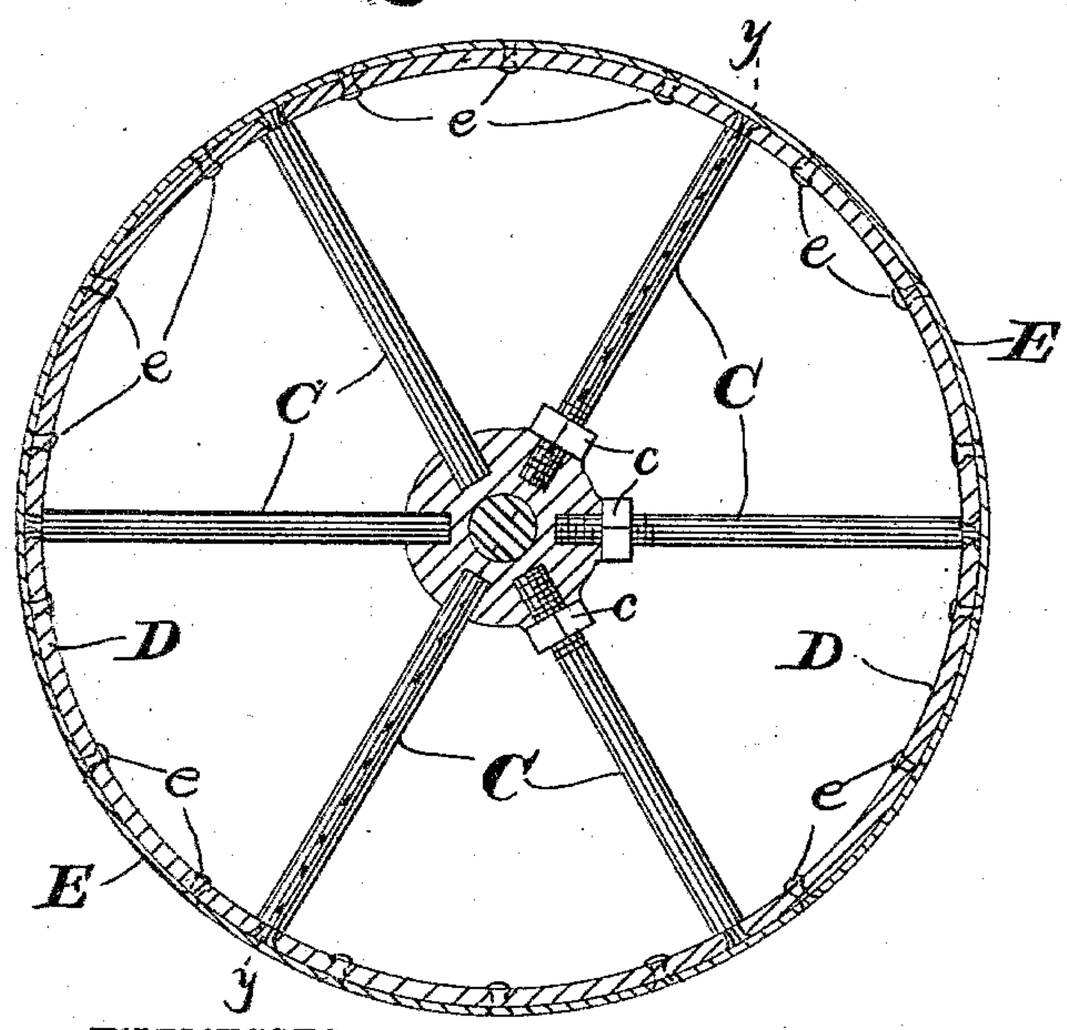
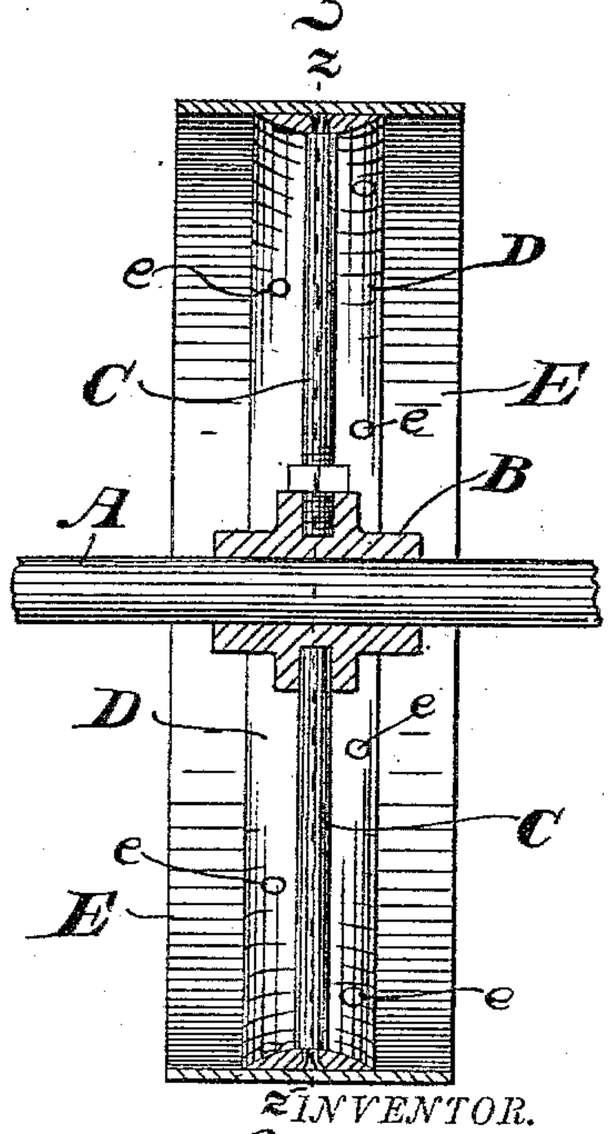


Fig. 3.



WITNESSES.

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OLAF R. OLSEN, OF INDIANAPOLIS, INDIANA.

PULLEY.

SPECIFICATION forming part of Letters Patent No. 305,840, dated September 30, 1884.

Application filed August 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, OLAF R. OLSEN, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Pulleys, of which the following is a specification.

My said invention consists in certain improvements in the construction of pulleys, whereby all the parts liable to be broken are composed of wrought or rolled metal, as will be hereinafter more particularly described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a pulley embodying my said invention; Fig. 2, a central vertical section of the same on the dotted line *z z* in Fig. 3, and Fig. 3 a central vertical section on the dotted line *y y* in Fig. 2.

In said drawings, the portions marked A represent the shaft on which the pulley is mounted; B, the hub of the pulley; C, the spokes or arms; D, the inside rim secured to said spokes or arms, and E an outside rim secured to the inner rim.

The hub B may be any suitable hub formed of either cast or wrought metal, as desired, and is provided with several sockets for the reception of the spokes or arms C.

The arms C are formed of rods or bars of wrought or rolled metal, (round steel rods I have found preferable,) and are either shrunk or screwed firmly into the sockets in the hub B. Jam-nuts *c* may be placed upon these arms, if desired, and serve to secure them in an adjusted position. Said arms upon the outer ends are turned down or tenoned and extend through holes in the inner rim, D, and are riveted thereto, as shown.

The inner rim, D, is composed of a hoop of metal, the outer side of which is flat, and the inner side of which is preferably the segment of a circle, although it may be also flat, if desired. This rim is provided with a number of holes equal to the number of arms in the pulley, through which the tenoned ends of said arms pass, as shown and before stated.

The outer rim, E, is formed of sheet or hoop metal of the desired width, (sheet-steel being deemed preferable,) and is secured to the inner rim, D, by rivets *e*.

By the construction just described a pulley is produced composed (with the exception, when desired, of the hub B, which may be of cast metal) of wrought or rolled metal, the parts of which are easily fitted and put in place, and none of which are liable to be easily broken or forced out of position.

The pulley as a whole is easily constructed and not expensive, besides being very strong and durable.

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

1. The combination, in a pulley, of an inner and an outer wrought-metal rim secured together, a hub, and spokes or arms connecting said rim and said hub, substantially as set forth.

2. The combination, in a pulley, of an inner and an outer wrought-metal rim, a hub, and spokes or arms socketed in said hub and tenoned, the tenons whereon extend through holes in said inner rim and are riveted therein, substantially as set forth.

3. The combination, in a pulley, of a double rim, the two parts whereof are riveted together, a hub, and wrought-metal arms secured to said hub and to the inner rim, substantially as described.

4. The combination, in a pulley, of a hub, wrought-metal spokes or arms socketed in said hub and tenoned upon their outer ends, a narrow inner rim mounted upon the outer ends of said arms and secured thereto, and a wider outer rim secured upon the outside of said inner rim, substantially as described, and for the purposes specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 18th day of August, A. D. 1884.

OLAF R. OLSEN. [L. S.]

In presence of—
C. BRADFORD,
CHAS. L. THURBER.