

(No Model.)

W. W. CAREY.  
WOOD RIM PULLEY.

No. 282,161.

Patented July 31, 1883.

Fig. 1.

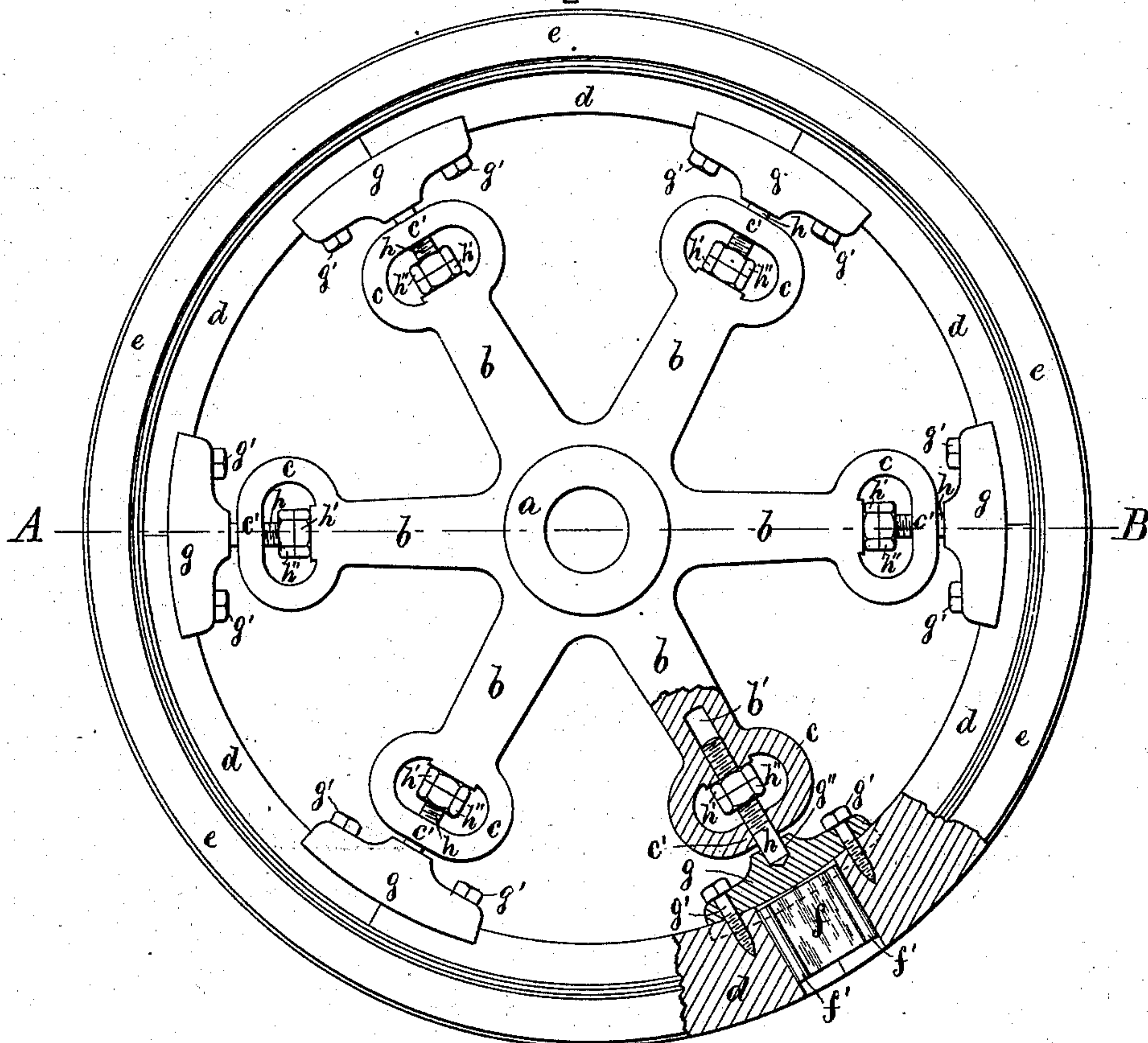


Fig. 2.

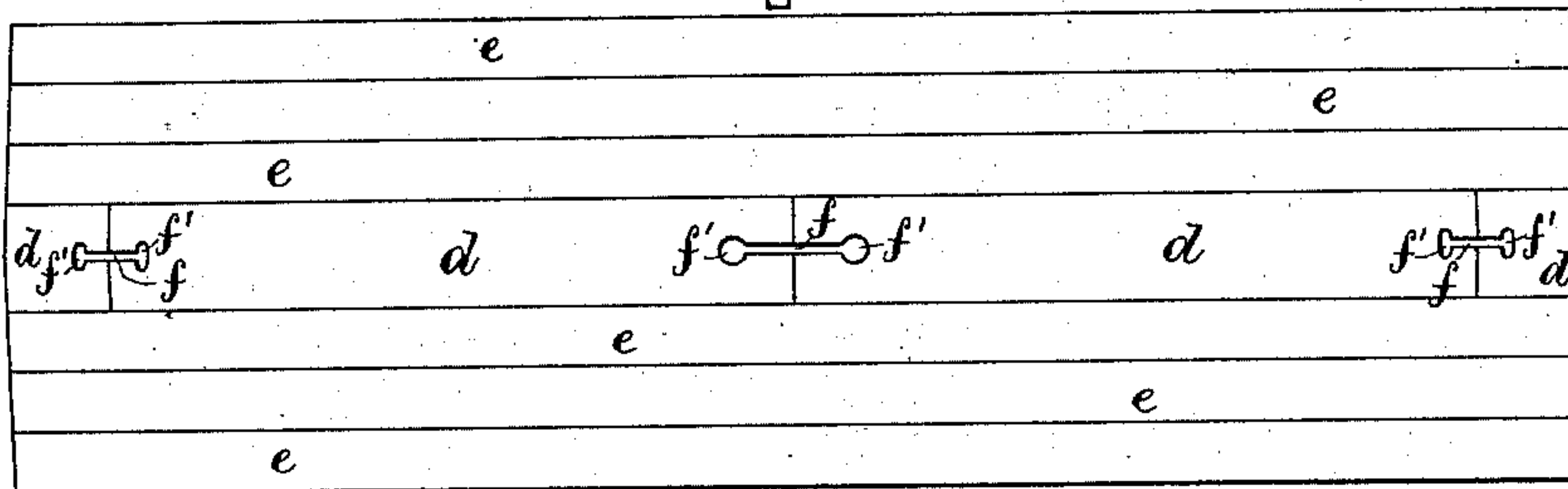
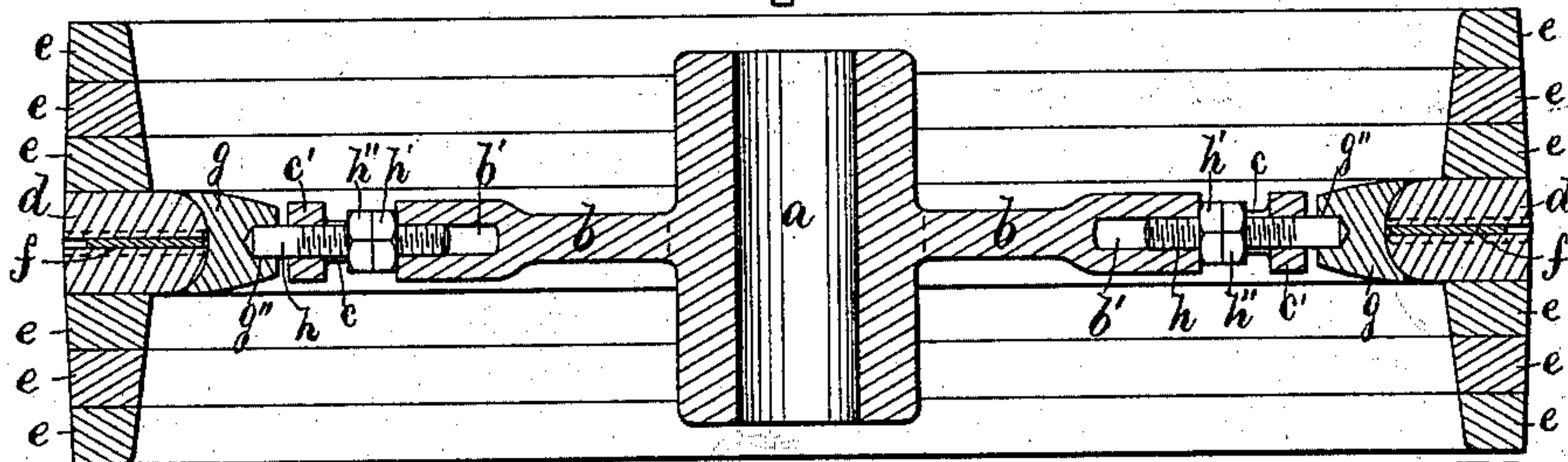


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILSON W. CAREY, OF LOWELL, MASSACHUSETTS.

## WOOD-RIM PULLEY.

SPECIFICATION forming part of Letters Patent No. 282,161, dated July 31, 1883.

Application filed June 14, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILSON W. CAREY, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Wood-Rim Pulleys; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

10 This invention relates to improvements in wood-rim pulleys; and it is carried out as follows, reference being had to the accompanying drawings, where—

Figure 1 represents a side elevation of the invention. Fig. 2 represents an end elevation; and Fig. 3 represents a longitudinal section on the line A B, shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

20 This invention is an improvement on the patent granted to me January 30, 1883, No. 271,416, for improvements in wood-rim pulleys; and is so constructed that I am enabled to insert the spider inside of the wooden rim after the latter is made, and by so doing I may keep a stock of wood rims on hand and secure to them metal spiders with the required central bore, according to the size of shafting for which the pulley is to be used, which could not very well be done in pulleys constructed in conformity with my aforesaid patent.

35 The central metallic spider is composed of the central hub, *a*, having radial arms *b b*, terminating each as a perforated eye, *c*, in a manner similar to my aforesaid patent.

40 *d d d* represent segments of the middle felly, to which the side fellies, *e e e*, are secured, as usual. At the junction of two adjoining middle segments, *d d*, I locate a metal binder, *f*, having enlarged ends *f' f'*, adapted to be driven into corresponding recesses in the ends of said adjoining segments *d d*. To the inside of said segments *d d*, preferably at the junction thereof, are secured the metal shoe-plates *g g*—one for each arm *b*—which plates are fastened to said segments by means of suitable lag-screws, *g' g'*, or other similar screws or bolts. Each shoe-plate *g* has mid-way on it a bored-out step or bearing, *g''*, to receive the end of the pressure-bolt *h*, which passes loosely through the outer end, *c'*, of the eye *c*. The inner end of the pressure-screw *h*

is guided in the cylindrical recess *b'* in the end of each radial arm *b*, as shown in Figs. 1 and 3, and the outer end of each bolt *h* is forced outward into its bearing *g''* in the metal shoe *g* by means of the nut *h'*, which is forced against the end of arm *b* by being screwed around the screw-threaded part of bolt *h*, as shown.

*h''* is a suitable check-nut on the bolt *h* to prevent the latter from working loose from nut *h'*.

In my former patent of January 30, 1883, the strain of the connecting-bolts between the radial arms and the rim acts as a pulling-strain on the eye outward from the center of the spider, which is not so practical as in my present invention, where all the strain is taken off from the eye *c* and transferred directly to the end of each radial arm *b*, by which arrangement such arms may be made lighter with more strength, as compared with my former invention.

75 I prefer to provide the end of each arm *b* with the perforated eye *c*, as I am able to obtain an outer guide for the bolt *h*; but, if so desired, the said eye *c* may be dispensed with and the screw-threaded bolt screw into the end of the arm *b*, which in such a case would be provided with an internal radial screw-thread to receive the screw-threaded inner end of said bolt *h*.

What I wish to secure by Letters Patent, and claim, is—

1. In a wood-rim pulley, the metal binder *f*, with its enlarged ends *f' f'*, adapted to fit into corresponding recesses at the junction of the middle felly-segments, *d d*, as and for the purpose set forth.

2. The herein-described wood-rim pulley, consisting of middle segments, *d d*, side fellies, *e e*, binders *f f'*, shoe-plates *g g*, hub *a*, radial arms *b b*, and pressure-bolts *h h' h''* or their equivalents, as and for the purpose set forth.

3. In a wood-rim pulley, the middle segments, *d d*, and shoe-plates *g g*, with bearings *g''*, adapted to receive the end of pressure-bolt *h*, adjustable in the end of the radial arm *b*, as set forth and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILSON W. CAREY.

Witnesses:

ALBAN ANDRÉN,  
HENRY CHADBURN.