

(No Model.)

W. W. CAREY.
WOOD RIM PULLEY.

No. 403,824.

Patented May 21 1889.

Fig. 1.

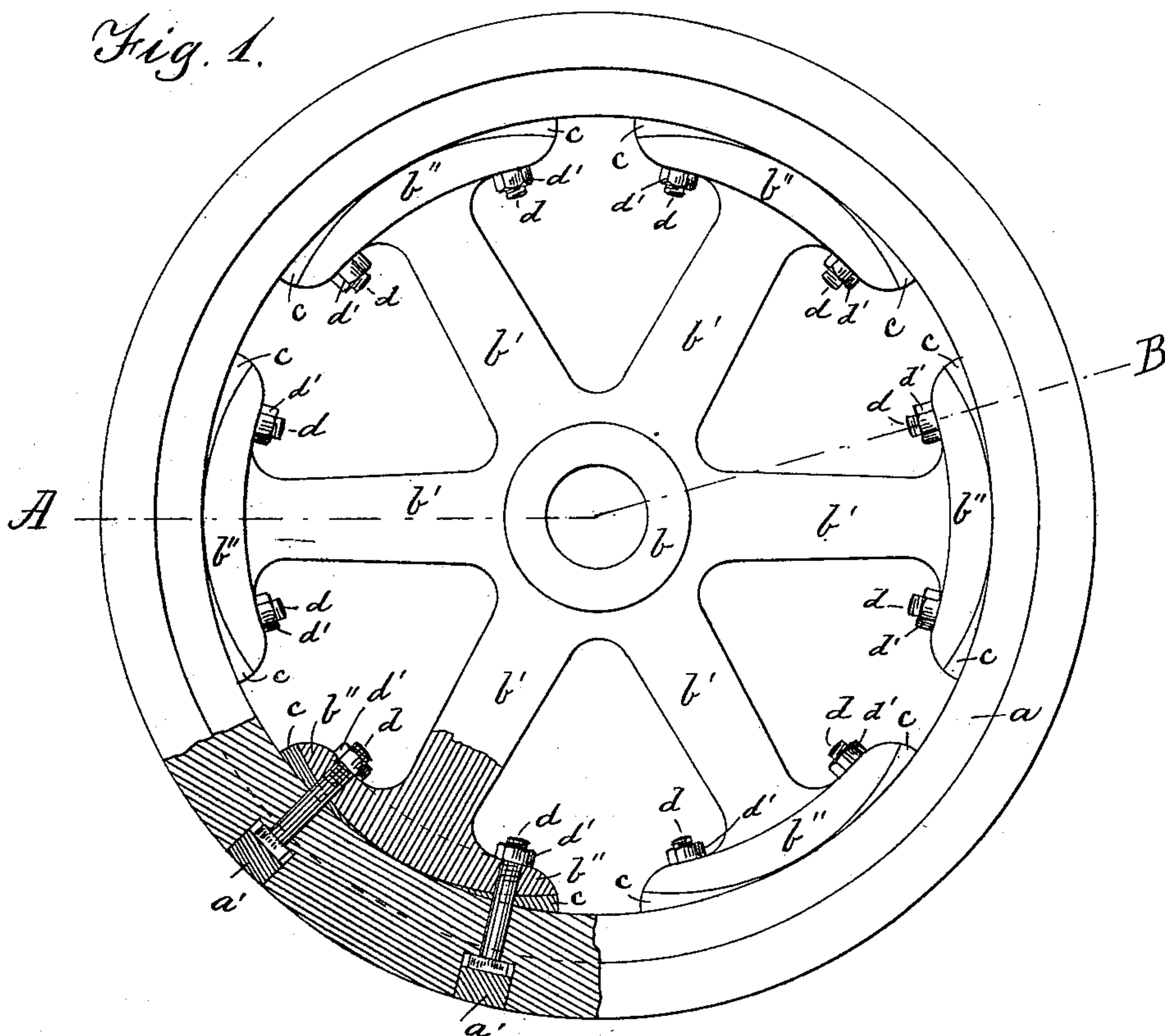
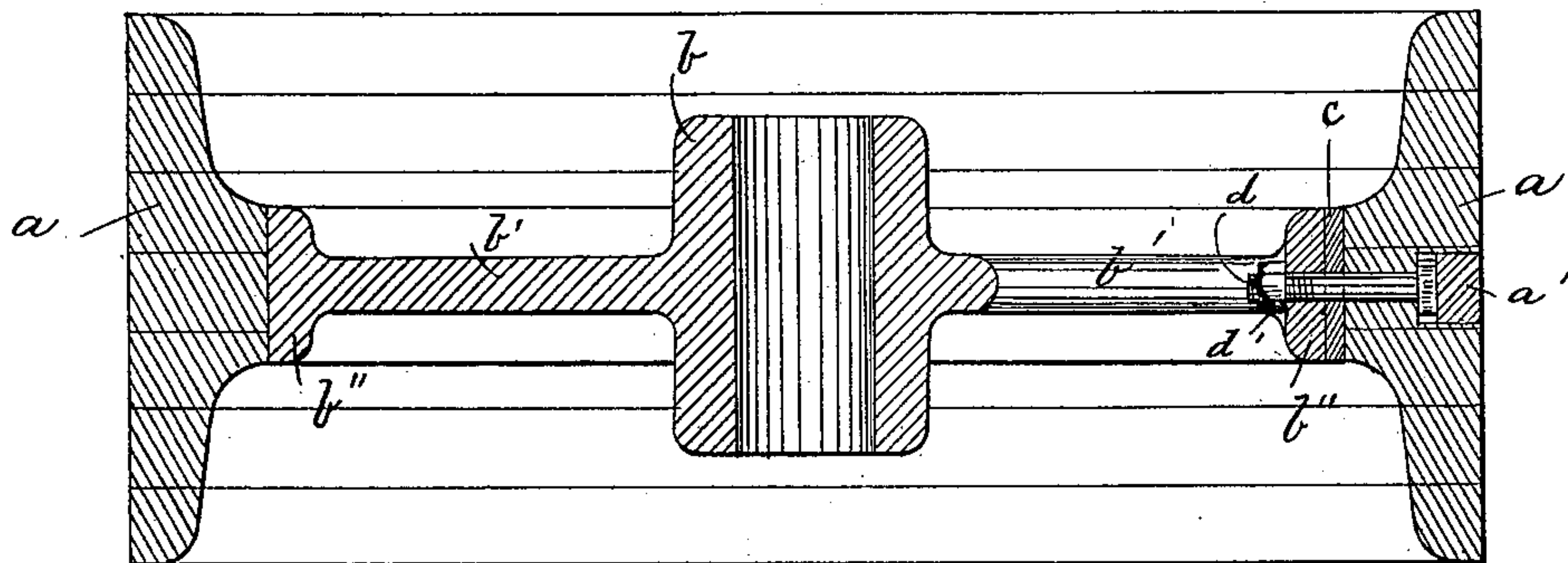


Fig. 2.



Witnesses.
Selma R. Schelin.
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Inventor:
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by Wm. Andren.
his atty.

UNITED STATES PATENT OFFICE.

WILSON W. CAREY, OF LOWELL, MASSACHUSETTS.

WOOD-RIM PULLEY.

SPECIFICATION forming part of Letters Patent No. 403,824, dated May 21, 1889.

Application filed August 4, 1888. Serial No. 281,967. (No model.)

To all whom it may concern:

Be it known that I, WILSON W. CAREY, a citizen of the United States, and a resident of Lowell, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Wood-Rim Pulleys, of which the following, taken in connection with the accompanying drawings, is a specification,

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

Figure 1 represents a side elevation of the improved wood-rim pulley, a part of which is shown in section. Fig. 2 represents a cross-section on the broken line A B, shown in Fig. 1.

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

a represents the wood rim of the pulley, made in segmental layers that are glued together, as is usual in pulleys of this kind. The central metallic spider is composed of the hub *b* and radial arms *b' b' b'*, terminating in their outer ends as curved feet *b'' b'' b''*, the radius of each such curved foot being somewhat less than the radius of the inner portion of the wood rim *a*, as shown in Fig. 1, thus causing the middle or central part only of each curved foot *b''* to bear against the interior of the wood rim *a*, as shown in Figs. 1 and 2.

Between the interior of the wood rim *a* and the opposite ends of the curved or inclined feet *b''*, I drive tapering curved or inclined wedges *c c*, preferably made of wood, as shown in Figs. 1 and 2, and I afterward secure each foot *b''* and its wedges *c c* to the wood rim *a* by means of the screw-bolts *d d*, passing through perforations made in said parts and secured in place by means of nuts *d' d'* or equivalent devices, as shown in said Figs. 1 and 2.

The recesses in the outer portion of the wood rim, through which the heads of the screw-bolts *c c* pass, are afterward filled up by means of plugs *a' a'*, as is common in wood-

rim pulleys. In practice I prefer to glue the wedges *c c* to the interior of the wood rim *a* at the time of driving them in the curved or inclined tapering spaces between the curved or inclined feet *b'' b''* and the interior of the wood rim *a*, so as to secure them more firmly in place.

The advantage of this construction is that the improved spider can be fitted with greater ease and with less work within the wood rim as compared with wood-rim pulleys in which the feet of the radial spider-arms fit the interior of the wood rim throughout their whole lengths.

Another advantage is that by means of the wedges *c c*, interposed and driven between the feet *b'' b''* and the wood rim *a*, the latter is most firmly secured to the metal spider, and the lateral strain on the holding-bolts greatly, if not wholly, relieved during the rotation of the pulley and the transmission of power by the same. One half of the number of wedges will serve to bind the wood rim and spider together when the pulley is rotated in one direction, and the other half of said wedges serve the same purpose when the pulley is rotated in the opposite direction.

Having thus fully described the nature and construction of my invention, I wish to secure by Letters Patent and claim—

The herein-described improved wood-rim pulley, consisting of the wood rim *a* and the metal spider *b*, having radial arms *b'* and the curved or inclined feet *b'' b''*, substantially as described, combined with the curved or inclined wedges *c c* and fastening-bolts *d*, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 27th day of July, A. D. 1888.

WILSON W. CAREY.

Witnesses:

ALBAN ANDRÉN.

SELMA R. SCHELIN.