

(No Model.)

L. H. GOODWIN.  
WHEEL FOR WHEELBARROWS.

No. 281,865.

Patented July 24, 1883.

Fig. 1.

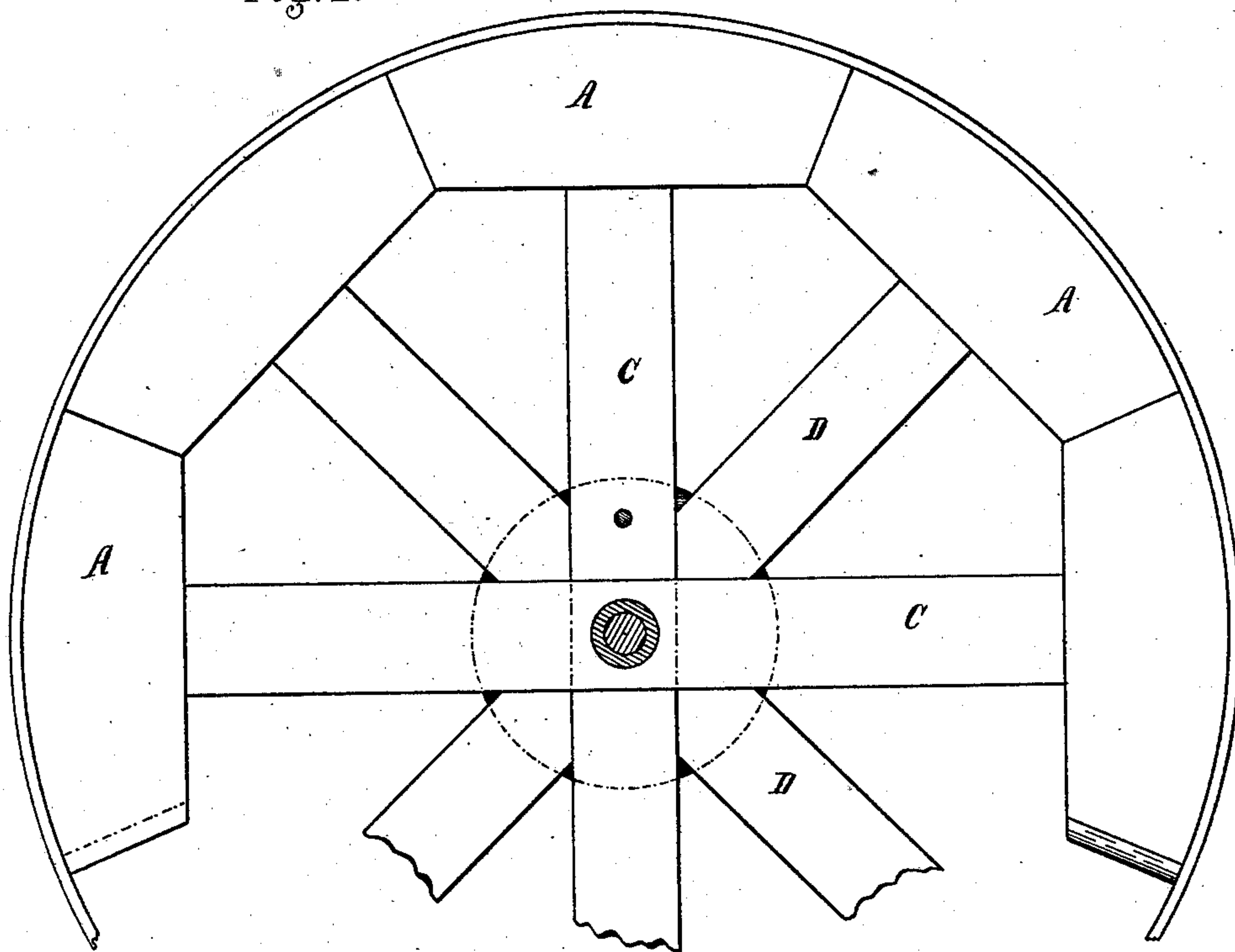


Fig. 2.

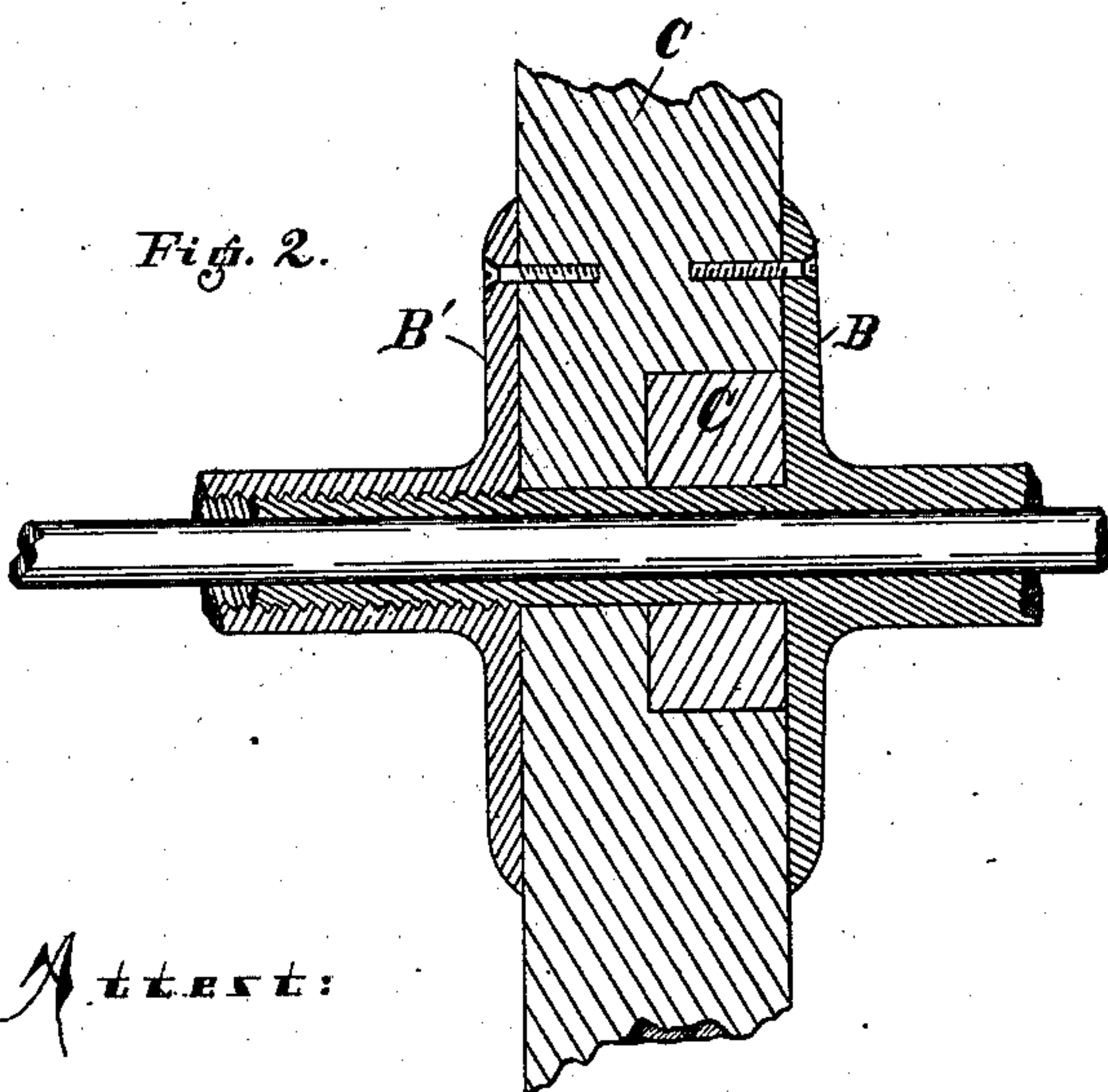
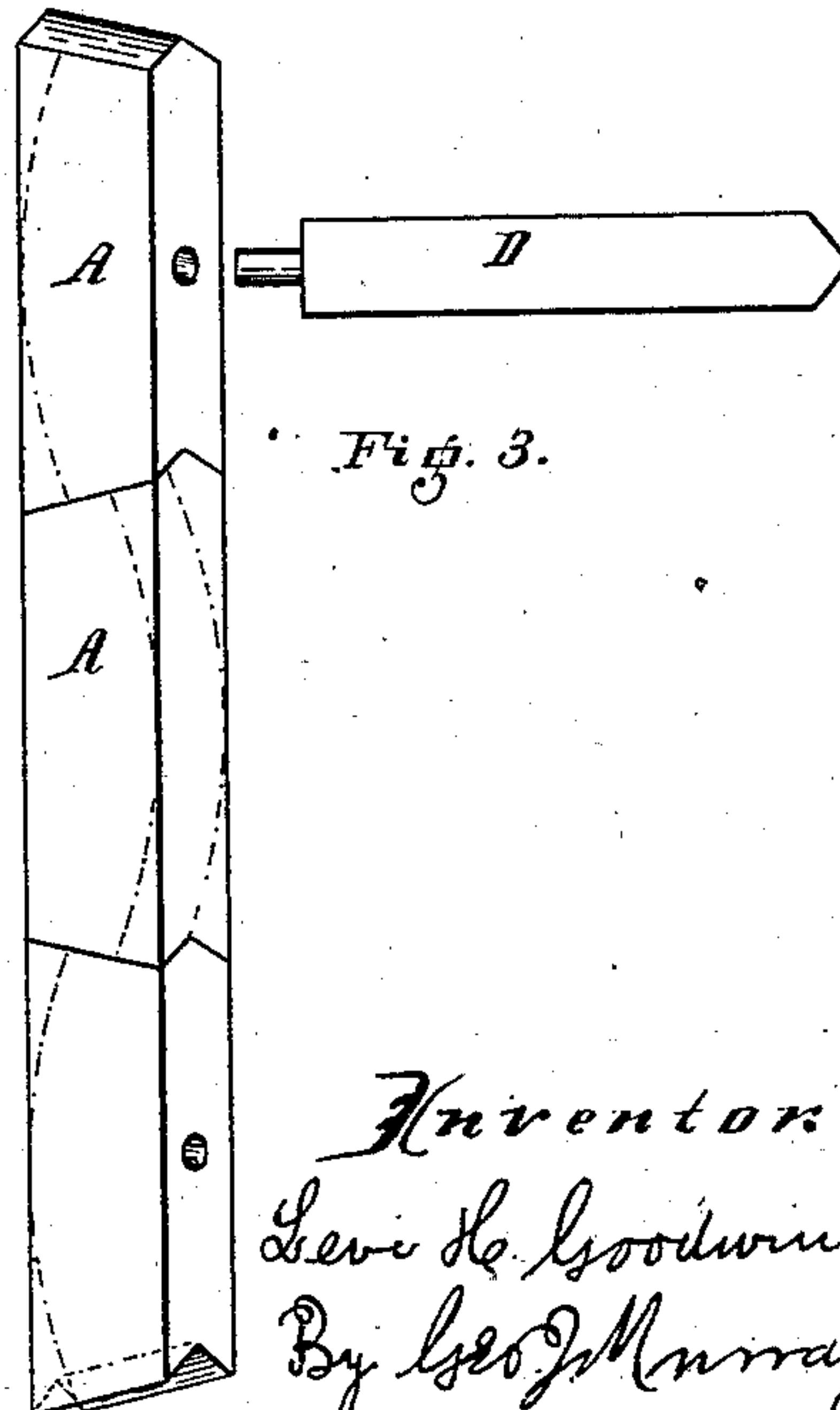


Fig. 3.



Attest:

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# UNITED STATES PATENT OFFICE.

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## WHEEL FOR WHEELBARROWS.

SPECIFICATION forming part of Letters Patent No. 281,865, dated July 24, 1883.

Application filed June 5, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, LEVI H. GOODWIN, a citizen of the United States, residing at Cincinnati, county of Hamilton, State of Ohio, have  
5 invented certain new and useful Improvements in Wheelbarrows, of which the following is a specification.

The object of my invention is to make a strong, durable wheel that can be quickly and  
10 cheaply made without waste of material. This object I accomplish by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a wheel embodying my improvements. In this view some  
15 of the fellys and one of the clamping-flanges are removed, to more clearly show the construction. Fig. 2 is an enlarged diametrical section through one of the continuous spokes and the flanges which clamp them together  
20 and form the hub of the wheel. Fig. 3 is a perspective view of some of the severed fellys placed in the position they occupy in the stick from which they were severed. Upon one side is also shown one of the short spokes detached.

25 The fellys A are severed from strips which have been previously dressed to the proper width and thickness. The mechanism for severing the fellys consists of two small circular saws, which are mounted upon two horizontal  
30 mandrels placed at an angle to each other. The mandrels have their bearings in a vertically-sliding sash, one mandrel being a little above the other, so that when the sash is brought down one saw cuts a little in advance  
35 of the other, so that a sharp-angled V-shaped cut may be made without danger of the teeth of the opposite saws striking. The bed upon which the stuff is fed to the saws is on an angle to the plane of the axes of the saws. The  
40 angle depends, of course, upon the number of fellys in the wheel. In the example shown there are eight fellys, and the incline of the bed should of course be at an angle of one hundred and twelve and a half degrees to the  
45 planes of the saw-axes. The strip, resting on its edge upon the inclined bed, is fed underneath the saws, when, by a treadle or other suitable movement, the sash carrying the saws is brought down, severing one felly from the  
50 strip. When the treadle is released, the sash is thrown up by a weight or spring movement

and the stick or strip turned over, bringing its opposite edge upon the bed and again fed forward under the saws the proper length for another felly. This operation is continued  
55 until the strip is used up. Underneath the tail or bed is arranged a bit to bore the hole for the dowel formed upon the end of the spoke. This bit is arranged to be carried up simultaneously with the descent of the sash  
60 which carries the saws.

Instead of the machine above referred to for cutting the felly-joints and boring the hole for the spoke-dowel, my joint can be made upon the bed of an ordinary jointing-saw having  
65 the customary mandrel below the bed and working through it, but the mandrel inclined with relation to the bed, and another mandrel inclined in the opposite direction, mounted above the bed, the mandrels being placed in  
70 different vertical planes, so that one saw will cut in advance of the other, as the ordinary circular mill-saws are arranged. The guide upon the bed is of course so placed that the strip will be fed to the saws at an angle to the axes of  
75 the saw-mandrels, so that the V-shaped end of the fellys will be on the radii of the wheel.

The cheek-plates B B', having the screw-threaded sleeves, are the same as shown in my patent of January 11, 1881; but the spokes  
80 in my present wheel are differently arranged, and by this arrangement I am enabled to make a stronger and better wheel at a less cost of production.

The spokes C C are continuous and gained  
85 together in the middle, after which they are bored centrally to receive the sleeve of the cheek-plate B. The spokes D are short, and have their inner ends beveled from each edge to the center, the beveled parts being at right an-  
90 gles to each other, to fit into the angle formed by the spokes C C. When the cheek-plates B B' are tightly clamped upon the sides of the spokes, the inner ends are held firmly in place. In fitting up my wheel the spokes are first clamped  
95 between the cheek-plates, the felly-sections A are then driven onto their dowels on the ends of the spokes and clamped together in a suitable press to bring the joints up close, after which the perimeter, which is octagon-shaped,  
100 is dressed to a circle by a band-saw. The exterior sleeve of the face-plate, fitting a hole

in the saw-table, or in a pattern placed upon it, serves as a pivot-bearing in which the sleeve turns while the saw is dressing it to a perfect circle.

5 I am aware that it has been proposed to form the meeting ends of felly-sections with surfaces which are concave and convex, respectively, or segments of the inside and outside of a hollow sphere, and hence do not claim  
10 such.

What I claim as new, and desire to secure by Letters Patent, is—

1. The felly-sections A of the wheel, formed with V-shaped meeting surfaces, the one  
15 matching into the other, so as to prevent lateral displacement, substantially as described.

2. In a wheelbarrow-wheel, the combination, substantially as specified, of the felly-sections and side-clamping cheek-plates, with the continuous spokes C, matched together in 20 the center, and short spokes D, beveled at their inner ends, so as to rest in the angle formed by the spokes C, and having their inner ends clamped by the face-plates, substantially as specified.

LEVI H. GOODWIN.

Witnesses:

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JACOB J. GESSERT.