(No Model.)

J. D. JERVIS.

WHEELBARROW WHEEL.

No. 305,313. Patented Sept. 16, 1884.

Fig. 1.

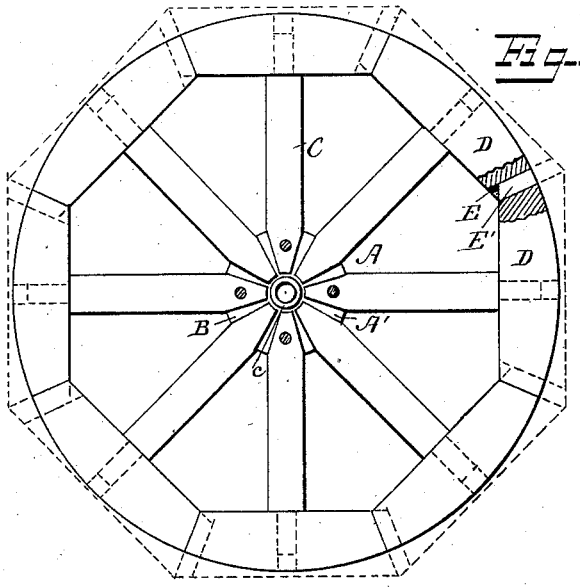


Fig. 2.

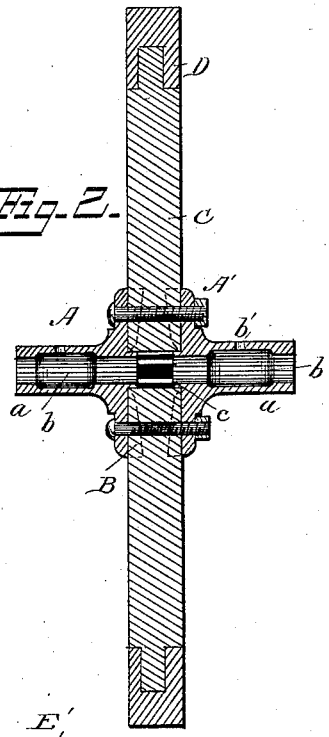


Fig. 3.

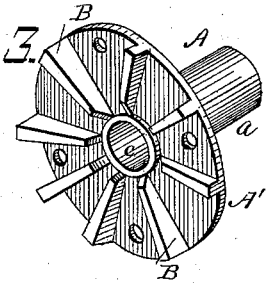


Fig. 4.

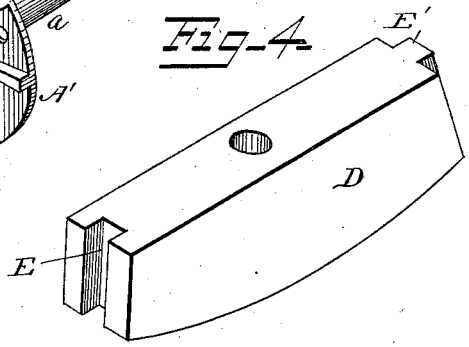
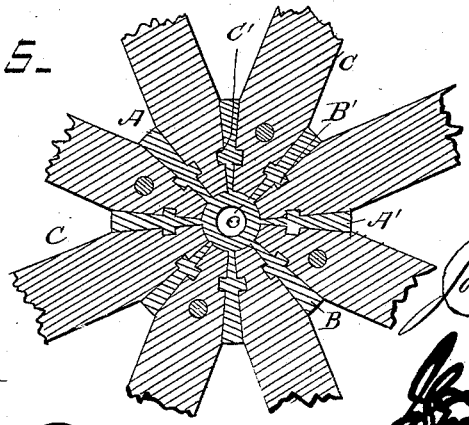


Fig. 5.



WITNESSES

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WHEELBARROW-WHEEL.

SPECIFICATION forming part of Letters Patent No. 305,313, dated September 16, 1884.

Application filed March 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. JERVIS, a citizen of the United States of America, residing at Ironton, in the county of Lawrence and State of Ohio, have invented certain new and useful Improvements in Wheelbarrow-Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in wheels, its object being to provide a wheel for such vehicles as wheelbarrows, harvesters, and the like, in which the hub extends equally on each side of the spokes and fellies; and it consists in providing a wheel of this class with a hub which is made up of two parts, which are similarly constructed and provided with flanges, which form recesses for the ends of the spokes adjacent to the hub, said plates being adapted to be secured to each other by bolts which pass through each alternate spoke, said metallic hub being provided with oil-cavities, as will be hereinafter more fully set forth.

My invention further consists in the improved method of constructing and manufacturing the wheel, whereby the cost of the same is reduced.

In the accompanying drawings, Figure 1 is a side view showing one of the hub-plates removed, and a portion of the felly in sections, the original periphery of the wheel being shown in dotted lines. Fig. 2 is a vertical section. Figs. 3 and 4 are detailed views, and Fig. 5 is an enlarged sectional view taken through the center portion of the wheel.

A A represent the hubs, which are provided with lateral side extensions, *a a*, which are provided with a longitudinal perforation, as shown, for the reception of the spindle, a portion, as shown at *b*, being enlarged, so as to provide an oil-cavity, in which oil may be injected through the perforation *b'*. At the end of the bearing, and beyond the vertical side of the portion of the hub-plate which embraces the ends of the spokes, is provided a continuous projecting portion, *c*, which forms a bearing for the ends of the spokes when they are placed in the hub. The side pieces, A', which embrace the sides of the spokes, are provided with projecting portions B, which radiate from the center. These projecting portions B taper from the outer periphery of the hub toward the center adjacent to the inwardly-projecting flange *c*, adjacent to which they are beveled, as shown. These projecting portions B form sockets for the tapered ends of the spokes, and, if desirable, these portions B may have circumferential lugs formed on each side of the same, as indicated by the letter B', in which case the spokes will be provided with corresponding recesses, into which the aforesaid lugs will fit.

When it is desired to secure the parts of the wheel together, the ends of the spokes, which are tapered, as shown in Figs. 1 and 5, are placed within the sockets, and bolts are passed through the perforations in the plate, and through four or more of the spokes, which are provided with perforations for the reception of the same, and the parts are securely clamped upon each other. It will be readily seen that the ends of the spokes will be securely clamped between the parts of the hub in a rigid manner, and as each side of the hub is identical in construction, but one mold and set of tools for finishing the same is required. In forming this casting by providing the oil-cavities *b*, I not only provide a means for lubricating the spindle, but also dispense with boring out or truing that portion of the bearing.

The spokes of my improved wheel, as indicated by the letter C, are of ordinary construction—that is to say, they are cut so as to be rectangular in cross-sections, the thickness of the same corresponding with the width of the felly, and their ends are tapered adjacent to the hub-section and provided at their outer ends with a projecting portion and shoulders. The tapered ends of these spokes are, however, provided with a recess, C', for the reception of the lugs B' upon the hub-plates when such lugs are used.

The fellies B are made from strips of lumber of the proper width and thickness, which

straight strips of lumber are alternately cut at opposing angles, after which the ends are dressed, so as to provide the tongue and groove portion E E′, each of these sections being in the shape shown in Fig. 1 in dotted lines. These tongue and groove ends of the sections B are adapted to fit within each other, and, when placed together, will form an octagonal rim, the points of contact between the sections converging toward the center of the hub. The central portion of each of these sections is provided with spoke-sockets, as shown.

When it is desired to place the rim upon the wheel, the felly-section D may be first secured to the spokes and the same placed in position in the hub; or the spokes may be secured to the hub first, and the felly-section placed thereon afterward. After the wheel has been put together, as will be fully understood by reference to Fig. 1 of the accompanying drawings, the corners are removed and the felly cut away, so as to form a true circle, after which it is ready for the reception of the tire.

If desirable, the sectional pieces of the felly D, which are all of the same size and identical in construction, may be sawed into the proper shape by a suitably-constructed implement, or the rim may be sawed after it is placed in position by a cylindrical saw.

It will be seen that by the construction hereinbefore described and illustrated in the accompanying drawings, as the parts of the wheel are identical in construction, they will match, and the separate parts of the wheel may be manufactured separately in quantities; and by providing a felly with grooved meeting surfaces which match into each other, lateral displacement will be prevented and the wheel rendered more solid.

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

1. In a wheelbarrow-wheel, a hub composed of two separate and identical sections, A A, provided, respectively, with inwardly-projecting portions B and a central projecting flange, *c*, and a continuous perforation forming a spindle bearing bolts for clamping the parts to each other and upon the spoke, substantially as shown, and for the purpose set forth.

2. The improved hub for wheelbarrow-wheels, provided with a longitudinal spindle-bearing, *a*, having oil-cavities *b*, and side bearing-plate, A′, with projecting portion B, and a central flange, *c*, said plate being provided with perforations for the reception of clamping-bolts, substantially as shown, and for the purpose set forth.

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

JOHN D. JERVIS.

Witnesses:
JESSE R. NORTON,
JOHN HAMILTON.