

J. W. MARSHALL.  
Wheelbarrow.

No. 210,701.

Patented Dec. 10, 1878.

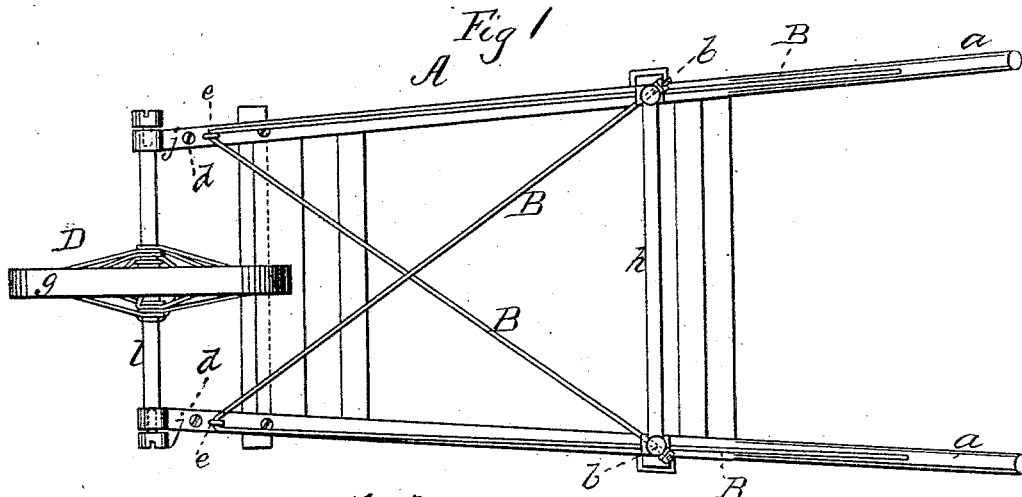


Fig 2 A

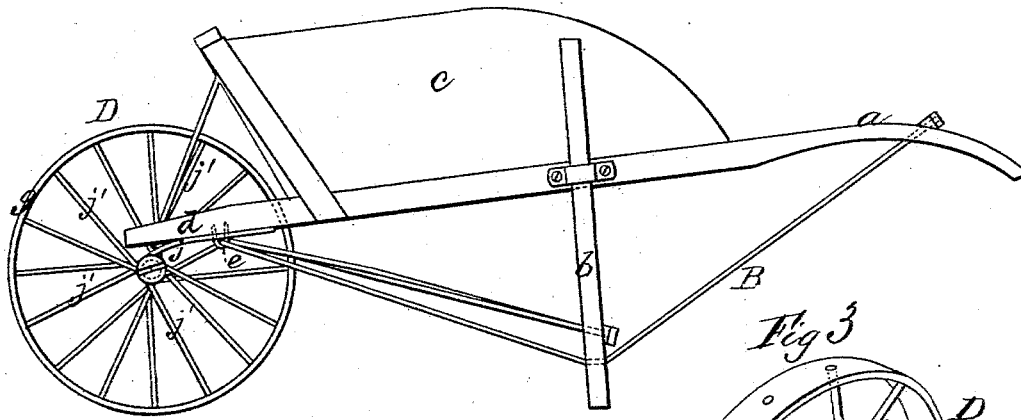


Fig 3

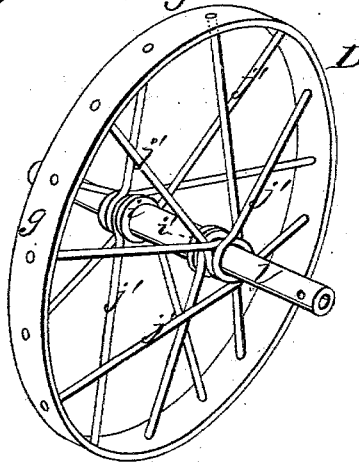
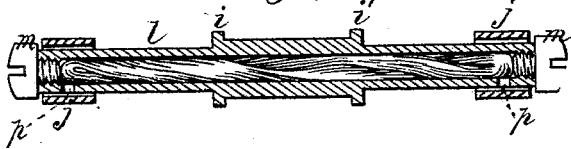


Fig 4.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JUSTICE W. MARSHALL, OF CAZENOVIA, NEW YORK.

## IMPROVEMENT IN WHEELBARROWS.

Specification forming part of Letters Patent No. **210,701**, dated December 10, 1878; application filed April 2, 1878.

*To all whom it may concern:*

Be it known that I, JUSTICE W. MARSHALL, of Cazenovia, in the county of Madison and State of New York, have invented a new and valuable Improvement in Wheelbarrows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a bottom view of my improved barrow. Fig. 2 is a side view of the same. Fig. 3 is a perspective view of the wheel, and Fig. 4 is a longitudinal section of the hub-shaft.

This invention has relation to improvements in wheelbarrows; and the nature of the invention consists in combining, with a wheelbarrow, side truss-braces, commencing at the handles, near their outer ends, extending downward to and through the legs; thence upward to the ends of the bearing-arm, through eyebolts thereon; thence diagonally across the body of the barrow, under the same, to the opposite leg, to which they are then secured, whereby the barrow is made capable of bearing a heavy weight and its legs are prevented from spreading, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates an ordinary barrow-body, of which *a* designates the handles; *b*, the legs; *c*, the removable sides, and *d* the arms. B represents the side truss-braces, each commencing near the outer end of a handle, extending thence downward through the leg, thence upward through an eyebolt, *e*, on the bearing-arm *d*, thence diagonally to the other leg, to which it is then rigidly secured. The diagonal part of the braces cross each other under the bottom of the barrow. The lateral portions of the brace act after the manner of a truss, to prevent the sill of the barrow-body from bending, while

the diagonals, in connection with the usual cross-brace *h*, effectually guard the legs against being racked, becoming shaky, or breaking off.

The wheel D has its bearings in the spring-arms *j*, rigidly secured to the under side of the bearing-arms *d*. It consists of a hollow shaft, *l*, having at each side of the middle of its length the spaced collars *i i'*; the metallic rim *g*, having regularly-spaced perforations countersunk upon the outside of the said rims; and of the spokes *j'*, formed by bending a metal rod into U form around the shaft *l*, in the space below the collars *i i'*, carrying the ends of the rods through the perforations in the rim in such manner that the spokes springing from one set of collars shall alternate with those of the other. The collars being some space apart, the spokes converge toward the median line of the rim, and form a very strong and effective wheel.

The hub-shaft *i* is tubular, and is designed to receive a supply of wick, cotton-waste, or other like substance, and oil. It has its bearings in the spring-arms *j* aforesaid, and its ends are closed by means of the removable screw-caps *m*, oil to lubricate the bearings being allowed to flow from the interior of the hub-shaft through the perforations *p*, concealed by the said bearings.

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

In combination with the wheelbarrow A, the side truss-braces, B, commencing each at the handle, extending downward through the leg, thence upward through an eye on the bearing-arm, thence diagonally across the body to the other leg, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JUSTICE W. MARSHALL.

Witnesses:

CHAS. B. CANNON,  
M. J. STONE.