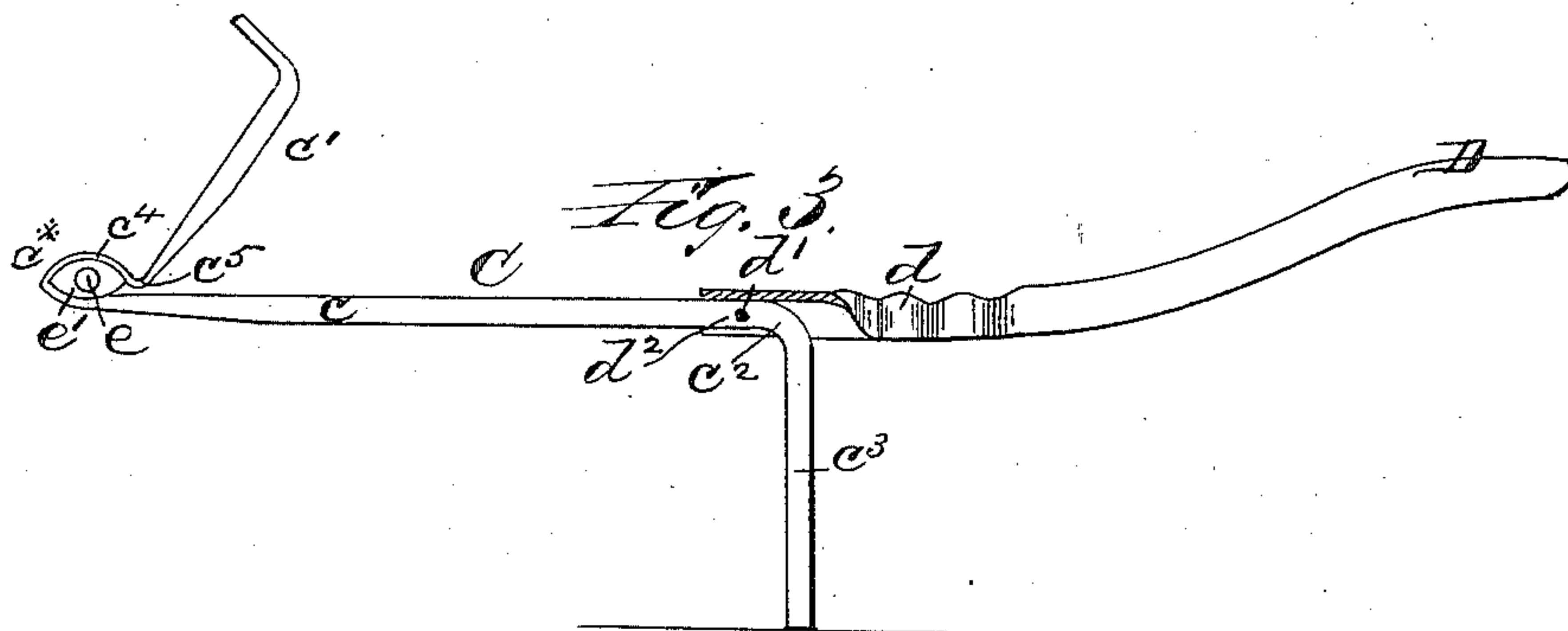
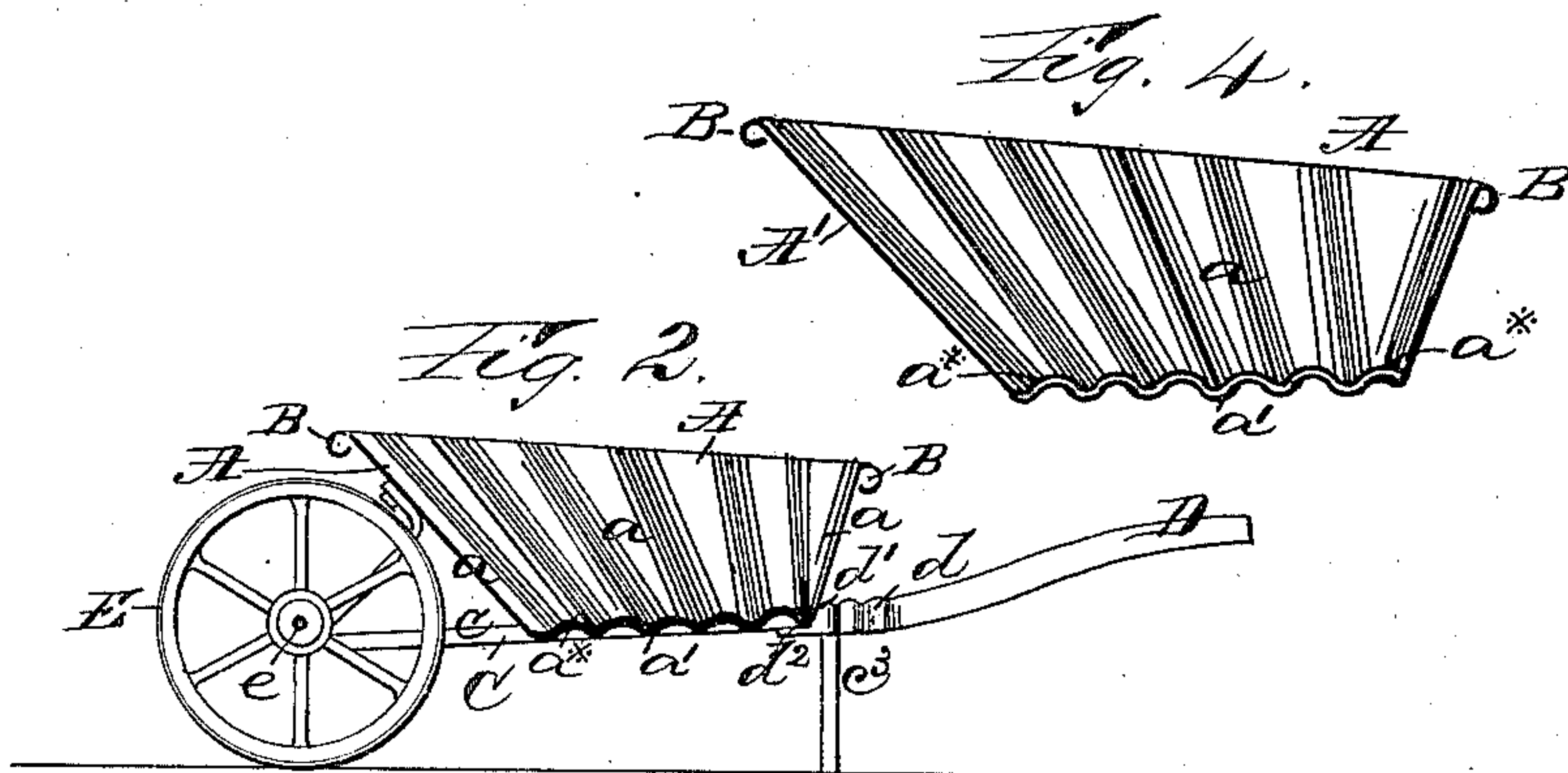
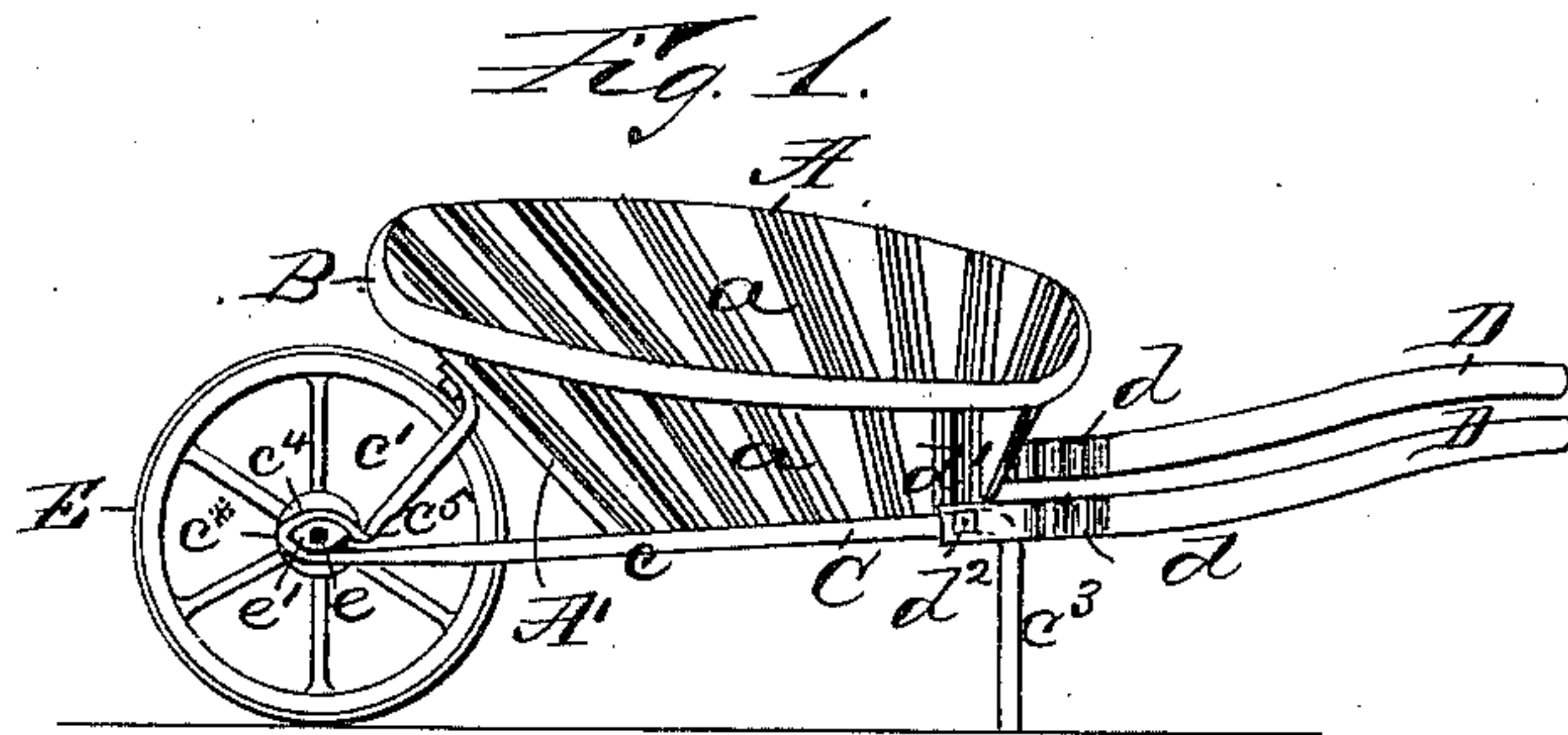


(No Model.)

J. GRAVES.
WHEELBARROW.

No. 307,455.

Patented Nov. 4, 1884.



Witnesses.
Stephen A. Powell
James B. Sheldon

Inventor.
John Graves

UNITED STATES PATENT OFFICE.

JOHN GRAVES, OF BROOKLYN, NEW YORK.

WHEELBARROW.

SPECIFICATION forming part of Letters Patent No. 307,455, dated November 4, 1884.

Application filed August 4, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN GRAVES, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented an Improved Wheelbarrow, of which the following is a specification.

My invention relates to improvements in metallic wheelbarrows, the nature of which will be fully explained by reference to the following specification and the drawings annexed, which form part of the same.

Referring to the drawings, Figure 1 is a perspective view of my improved wheelbarrow. Fig. 2 is a central vertical section of the same. Fig. 3 is a detached view of the hollow frame and legs on a larger scale. Fig. 4 is an enlarged sectional view of the body.

In each of the views similar letters of reference are employed to indicate corresponding parts wherever they occur.

A represents the body of the barrow, which is formed of a single sheet of wrought-iron stamped out by dies in such manner that its sides *a a* and bottom *a'* shall be each corrugated, as shown clearly by the sectional views, Figs. 2 and 4. The bottom *a'*, I prefer to be provided with an internal false bottom, *a''*, which may be stamped up at the same time as the main bottom *a'*, or otherwise, as desired. The false bottom *a''* is similarly corrugated to the bottom *a'*, and may be removed, in the event of its becoming worn out, and replaced by another similar false bottom. The upper edge of the body A is turned over, so as to form a rounded rim, B, which serves not only to give great strength to the body, but also to present a nice, smooth, and finished surface to the same. The body A is mounted upon a frame, C, composed of a pair of hollow wrought-iron tubes, *c*, which are bent upward at their front ends, *c''*, and turned backward, so as to form clasps *c'*, adapted to embrace and hold in position the bearings *e'* for the axle *e* of the wheel E. The tubes *c* at the point *c''* are turned upward, so as to form stays *c'* for the front of the body A', and at *c''* are bent downward to form the legs *c''*.

D D are the handles, which are formed of

metal of a V-section, and with a series of corrugations, *d d*, as shown more clearly by the enlarged view, Fig. 3. Said handles, being V-shaped in cross-section, are stronger than if made flat, round, or of any solid form of the same weight of material, and further strength is added thereto by means of the corrugations *d*, as shown and described, which serve also the purpose of imparting to the handles a slightly-yielding property at the point where the full weight of the barrow rests, when lifted up, before said weight is distributed mainly onto the wheel. The handles D D at *d'* are attached to the tubes *c*, forming the frame C, by means of bolts or rivets *d''*, passed through the handles D and tubes *c*.

By my improvements I am enabled to produce a barrow which is exceedingly light, while at the same time it is of much greater strength and rigidity than barrows of the ordinary construction.

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

1. As a new article of manufacture, a wheelbarrow having a body formed integrally from a single sheet of metal, the sides and bottom of said body being corrugated, substantially as shown and described.

2. A wheelbarrow-body having corrugated sides and a corrugated bottom, substantially as shown and described.

3. A wheelbarrow having a corrugated body and corrugated sides, and supplied with a supplementary removable corrugated bottom, substantially as shown and described.

4. In a wheelbarrow, the hollow metallic frame C, having a body-supporting shaft, *c*, turned over downwardly at *c''*, forming the leg *c''*, and at its opposite end turned over, forming the clip *c'*, and thence bent upwardly, forming the supporting-brace C', all of said members being integral and composed continuously of a single piece of metal, as and for the purpose intended, substantially as described.

5. In a wheelbarrow, the corrugated handles D D, substantially as described.

6. The combination, with a wheelbarrow-body, of the hollow metallic frame C, provided with corrugated handles D, V-shaped in cross-section and bolted to said frame, substantially as shown and described.

5 7. The combination, with a metallic wheelbarrow body and frame, of a wheel mounted on an axle carried by bearings embraced and held in position by the forward portion of a

hollow metallic frame, substantially as shown 10 and described.

In witness whereof I have hereunto set my hand this 28th day of July, 1884.

JOHN GRAVES.

Witnesses:

J. J. SULLIVAN,
JAMES B. SHELDON.