

F. J. COOPER.
WHEELBARROW FRAME.
APPLICATION FILED JULY 3, 1907.

917,414.

Patented Apr. 6, 1909.
2 SHEETS—SHEET 1.

Fig. 1.

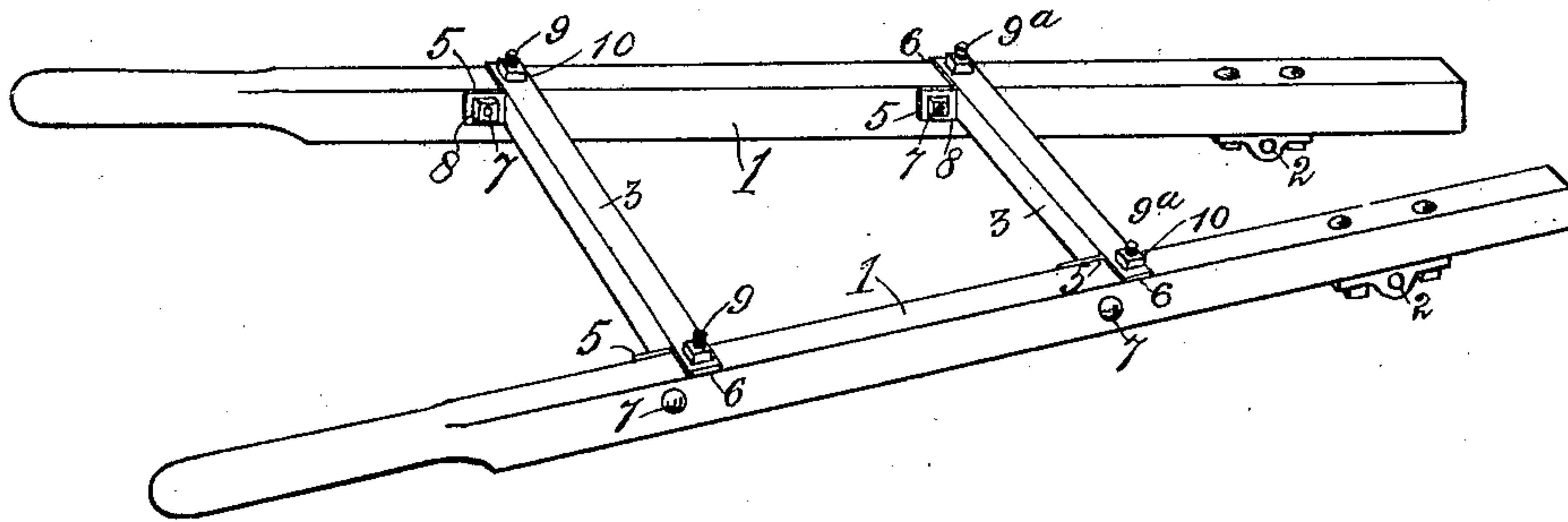
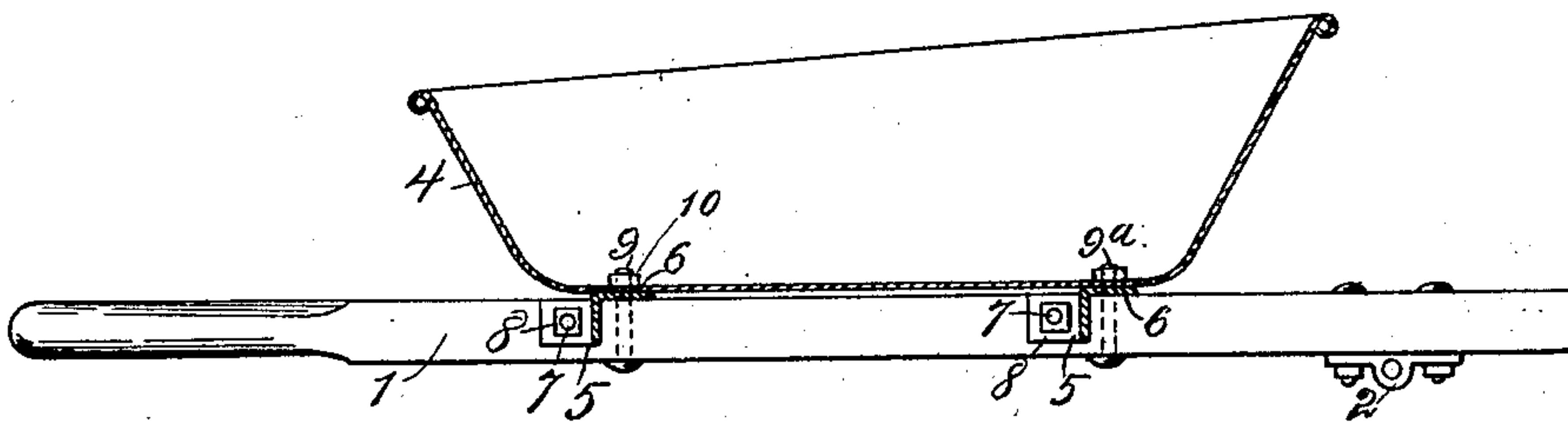


Fig. 2.



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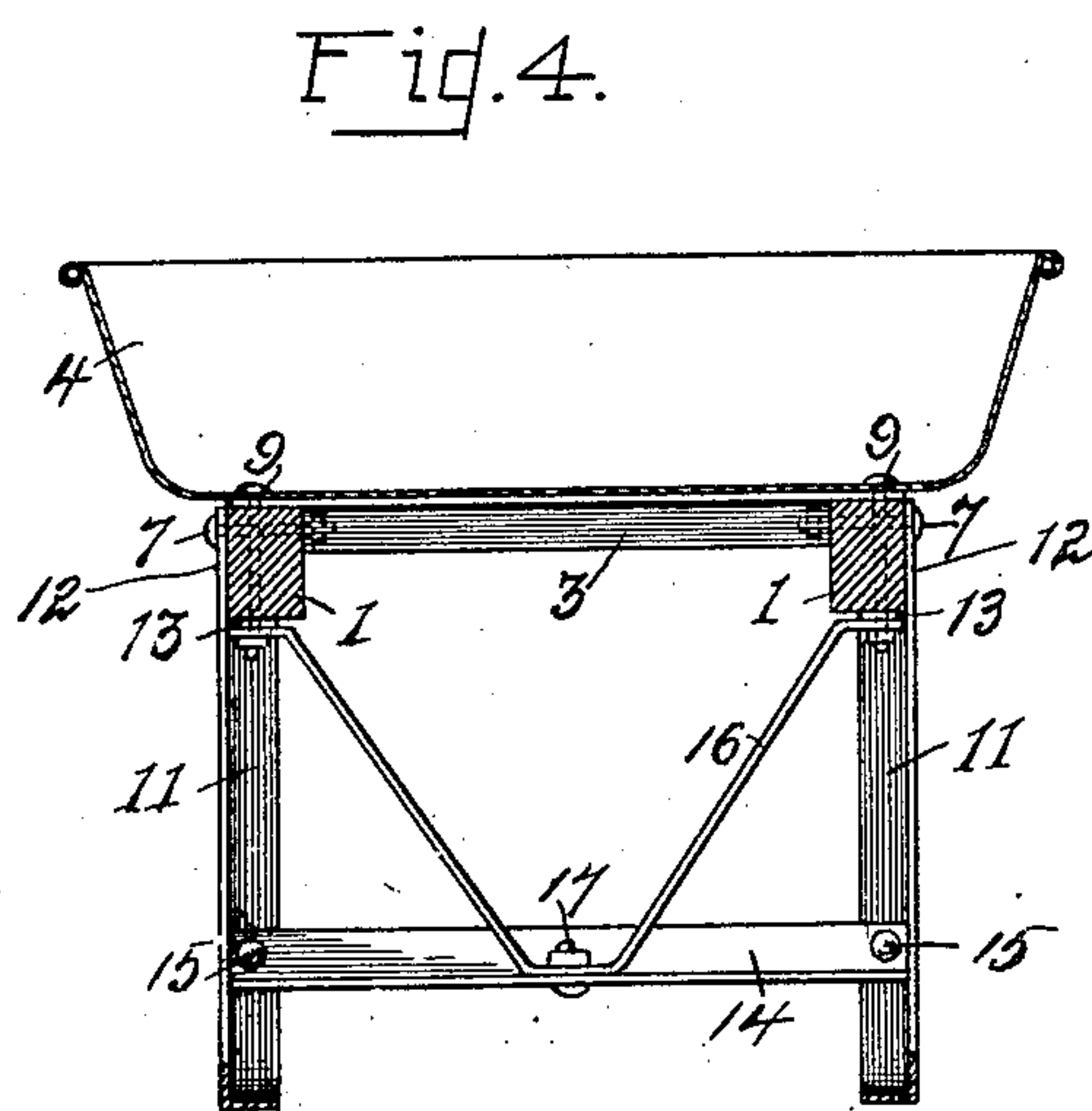
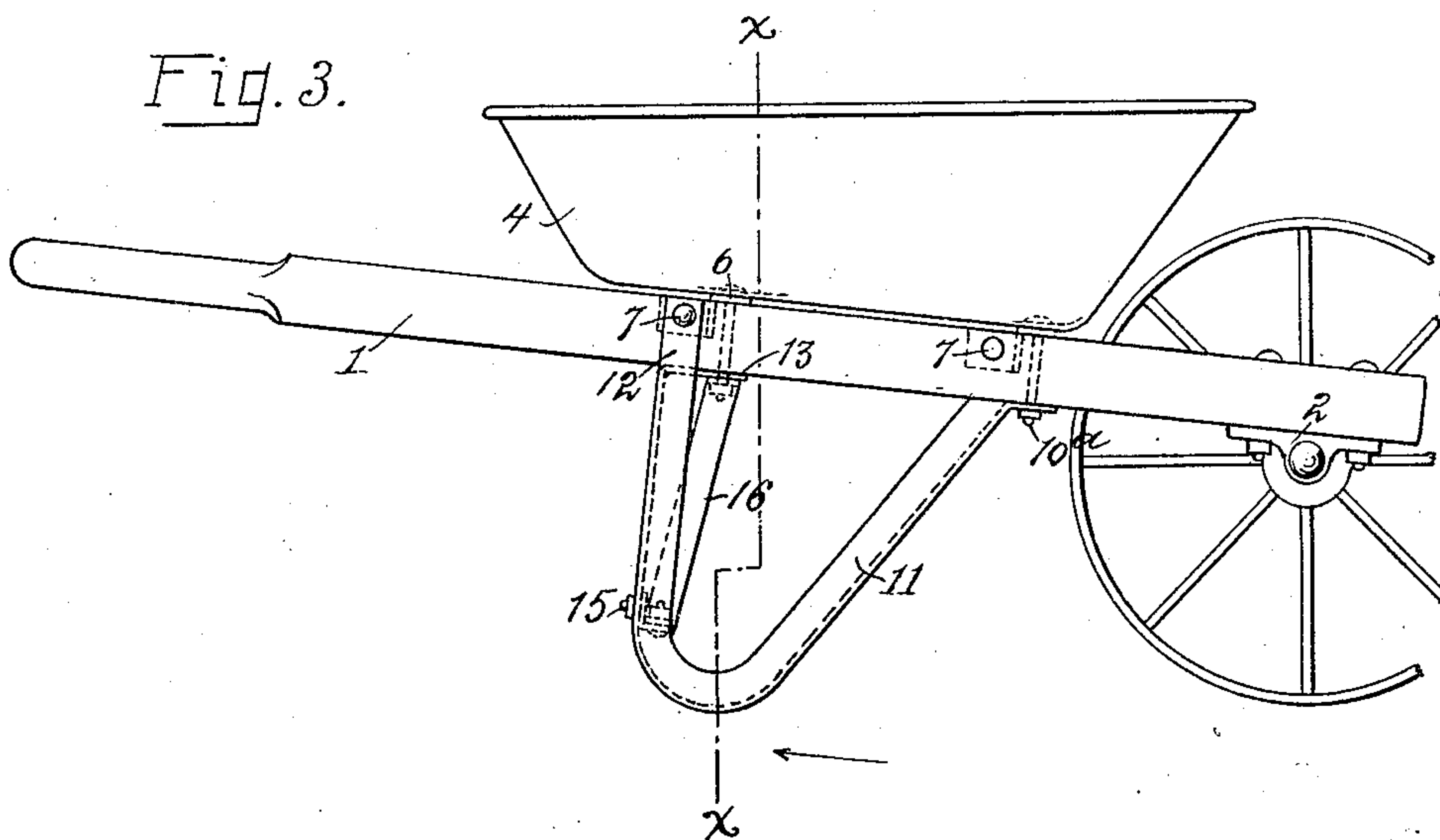
INVENTOR:

F. J. Cooper,
J. Howard Hall, Atty.

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UNITED STATES PATENT OFFICE.

FRANK J. COOPER, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO JOHN M. SKINNER, OF TOLEDO, OHIO.

WHEELBARROW-FRAME.

No. 917,414.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed July 3, 1907. Serial No. 331,956.

To all whom it may concern:

Be it known that I, FRANK J. COOPER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Wheelbarrow-Frames; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to wheelbarrow-frames and its object is to provide a construction which shall be cheap, simple, and strong and which shall provide for the assembling of the parts,—including the securing of the tray upon the frame,—with a minimum number of parts. I attain these objects by means of the devices and arrangement of parts hereinafter described and shown, and illustrated in the accompanying drawings, in which,—

Figure 1 is a perspective view of my frame with the legs and tray removed; Fig. 2, a central longitudinal sectional elevation of the same with the tray in place; Fig. 3, a side-elevation showing the arrangement of the legs and leg-braces hereinafter referred to, and Fig. 4, a transverse sectional elevation of the same taken on line $x-x$ Fig. 3.

In the drawings, in which like numerals of reference indicate like parts, 1—1 are the side-bars or handle-bars of my barrow, having handles at one end and converging toward the other end where the bars are provided with bearings 2 for the wheel,—these bearings being of the usual or of any preferred form.

3—3 are cross-braces which connect the side-bars, the two braces being disposed in the same plane with the side-bars and so arranged that they form supports for the front part and the rear part of the wheelbarrow-tray 4. The braces 3 are composed of angle-iron substantially L-shaped in transverse section. Each brace 3 at each end is split longitudinally for a short distance along the meeting line of the two members of the angle-bars. The vertical separated portions of the angle-bars are bent at such an angle as to conform to the converging lines

of the handle-bars, as at 5, leaving the separated portions of the other members of the angle-bars undisturbed. The flat unbent projecting portions of the angle-bars 3 rest on the top of the side-bars, as at 6, while the separated bent portions 5 of the angle-bars fit snugly against the inner sides of the side-bars. The parts 5 are pierced for the reception of bolts 7 which pass horizontally through the side-bars and through the parts 5, the bolts being secured in place by nuts 8. The parts of the angle-bars which overlap the tops of the side-bars are also pierced for the reception of bolts 9 which pass vertically through the side-bars and through the bottom of the tray 4. Upon the bolt 9 are nuts 10 by means of which the side-bars, the cross-braces, and the tray are rigidly secured together in fixed relation. The bolts 9 may be inserted either from above or below as illustrated in the drawings.

11—11 are two pieces of angle-bar substantially like the pieces 3—3, above mentioned, in transverse section. These pieces are bent into irregular U-shape, as shown, and at both ends are for a short distance split along the line of their angle. One of the separated portions at the forward end of each of the parts 11 remains intact, as at 12, the other separated portion, 13, being bent at an angle, the portions 12 resting against the outer side of the side-bars 1, the portions 13 resting against the underside of the handle-bars, the bent angle-bars thus forming legs for the barrow. The two legs, near the ground, are connected by a cross-brace 14 formed of a strip of angle-iron corresponding in cross-section with the pieces above described and having its extremities disposed in the inner angles of the leg-pieces as shown in Fig. 4. The ends of the cross-braces are secured to the leg-pieces by bolts 15 passing through their contacting flat parts.

16 is a brace or truss composed of flat bar-iron bent in V-shape and resting at its angle upon the horizontal web of the brace 14 midway of its length. At this point the parts 14 and 16 are rigidly secured together by means of bolt and nut 17. At its upper ends the part 16 is bent horizontally. Through these horizontal portions of the part 16 and through the horizontal split portions of the legs are holes which coincide with and receive the vertical bolts 9 so that the sidebars, the

upper cross-braces, the legs, the truss 16, and the tray are all engaged and secured in fixed relation by the two nuts and bolts 9. The vertical split portions of the legs resting
 5 against the outer side of the side-bars have holes which coincide with and receive the bolts 7 so that these bolts horizontally engage the cross-braces 3, handle-bars 1, and legs 11. The rear ends of the leg-pieces,—the ends
 10 next the wheel,—are secured to the under side of the side-bars by means of the bolts 9^a which pass vertically through the tray the rear cross-brace and the rear end of the leg. Thus it will be seen that the side-bars, the
 15 cross-bars, the legs, the cross-brace for the legs, the truss, and the tray are all rigidly secured together in fixed relation with a minimum number of bolts and nuts, and that by the construction shown great rigidity and
 20 strength in proportion to weight are obtained.

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

25 1. In a wheelbarrow-frame, a pair of side-bars, a pair of horizontal cross-braces, one in advance of the other, said cross-braces comprising angle-bars substantially L-shaped in cross-section, the extremities of the angle-
 30 bars being split on the meeting line of their two members, the vertical split portions being bent at an angle to fit the inner sides of the side-bars, the horizontal split portions resting on top of the side-bars, and bolts
 35 which engage the split portions of the extremities of the cross-braces with the side-bars.

2. In a device of the described character, a pair of side-bars, a pair of cross-braces be-
 40 tween the side-bars said cross-braces being composed of angle-bars split at both ends on the line of their meeting angle, one of each pair of the split portions being bent horizontally to fit the inner side of the adjacent side-
 45 bar, the other split portion of each pair resting on the top of such side-bar, a tray resting upon the frame thus formed, bolts which engage the bent members of the cross-braces with the sides of the side-bars, and bolts
 50 which connect the tray the side-bars and the

unbent members of the cross-braces rigidly in fixed relation.

3. In a device of the described character, a pair of side-bars, a pair of legs composed of angle-irons substantially L-shaped in trans- 55
 verse section and bent in irregular U-shape, the forward ends of the respective legs being split on the line of their angle, one split portion resting against the outer side of the side-
 bar the other split portion being bent to fit 60 the under side of the side-bar, a tray, a cross-brace, bolts which respectively engage vertically the tray the cross-brace a side-bar and a leg, and bolts which respectively engage hori-
 zontally a leg a side-bar and a cross-brace. 65

4. In a device of the described character, a pair of side-bars, a pair of legs composed of angle-bars bent into irregular U-shaped form and secured at their opposite ends to the side-
 bars, a leg-brace which connects the legs near 70 the ground, a truss connected centrally with the leg-brace and at its ends with the side-bars, a cross-brace connecting the handle-bars, a tray, and bolts which respectively en-
 75 gage the tray the cross-brace a side-bar a leg and the truss.

5. In a device of the described character, a pair of converging side-bars, a pair of horizontal braces which connect the side-bars and which consist of angle-bars L-shaped in 80
 cross-section and split at their extremities on the line of their angle, said split portions being engaged with the top and inner sides of the side-bars, a pair of legs consisting of
 85 angle-bars L-shaped in cross-section, split at their extremities on the line of their angle and bent into irregular U-shaped form the split portions of said legs being engaged with the bottom and outer sides of the side-bars,
 90 bolts which engage respectively the split members on the top and bottom of the side-bars, and bolts which engage respectively the split members on the inner and outer sides of the side-bars.

In testimony whereof I affix my signature 95
 in presence of two witnesses.

FRANK J. COOPER.

Witnesses:

CLEM V. WAGNER,
 ADA E. CAMERON.