

(No Model.)

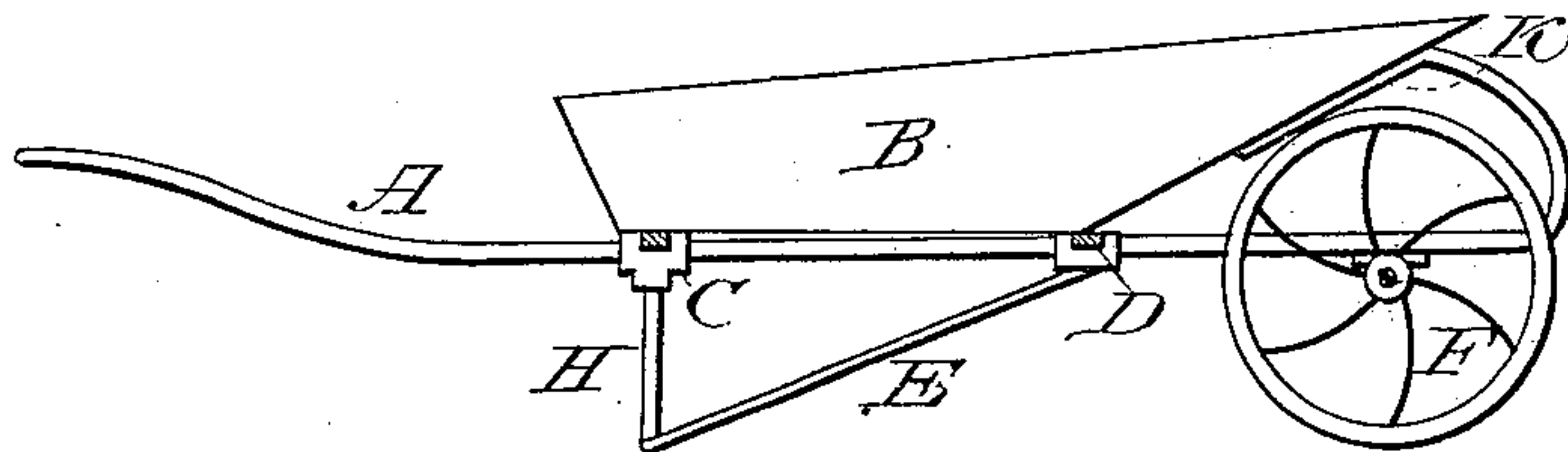
W. C. WREN.

WHEELBARROW.

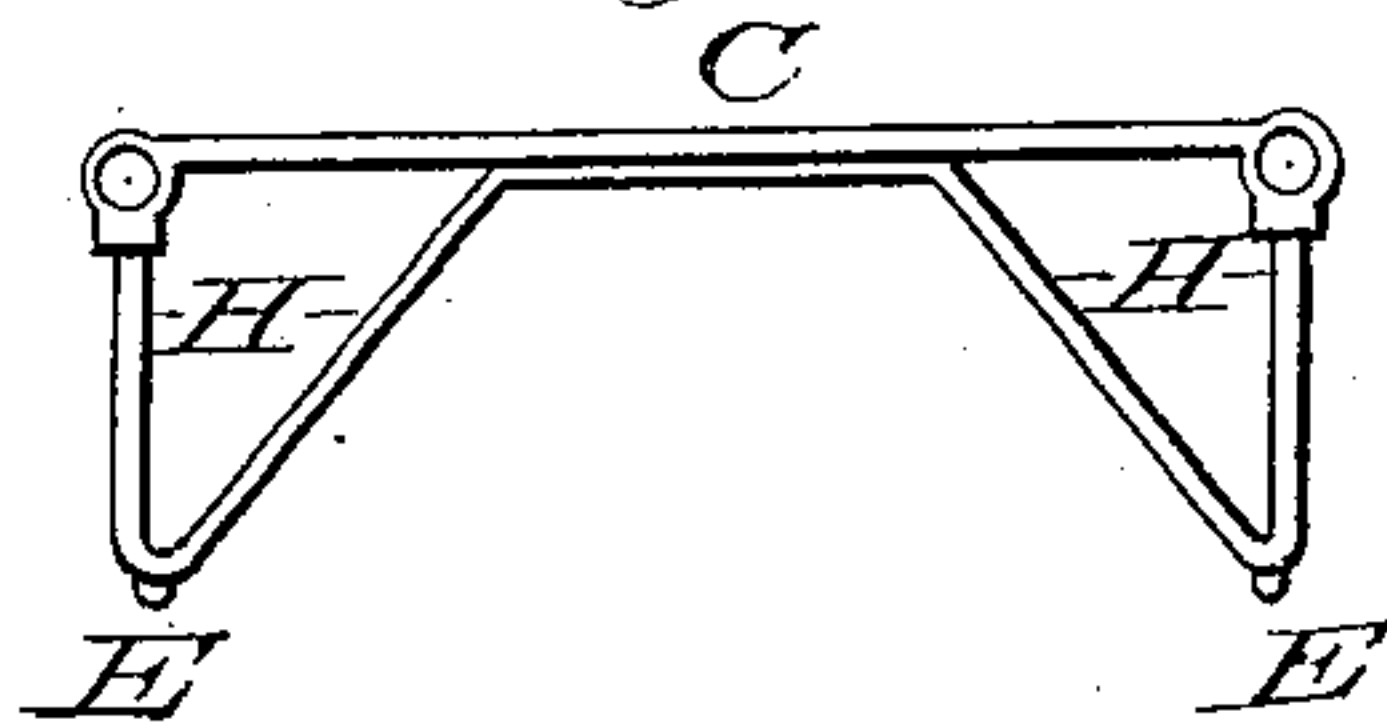
No. 246,584.

Patented Aug. 30, 1881.

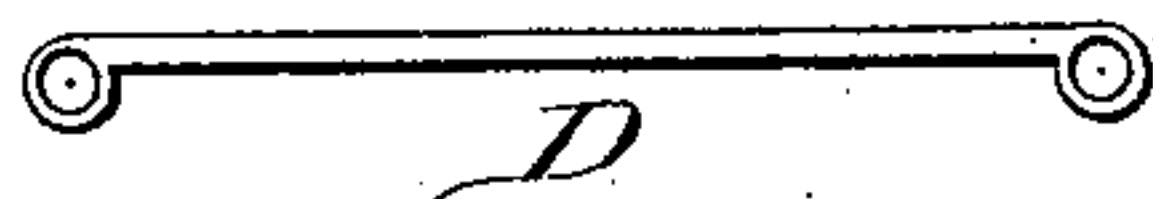
*Fig. 1.*



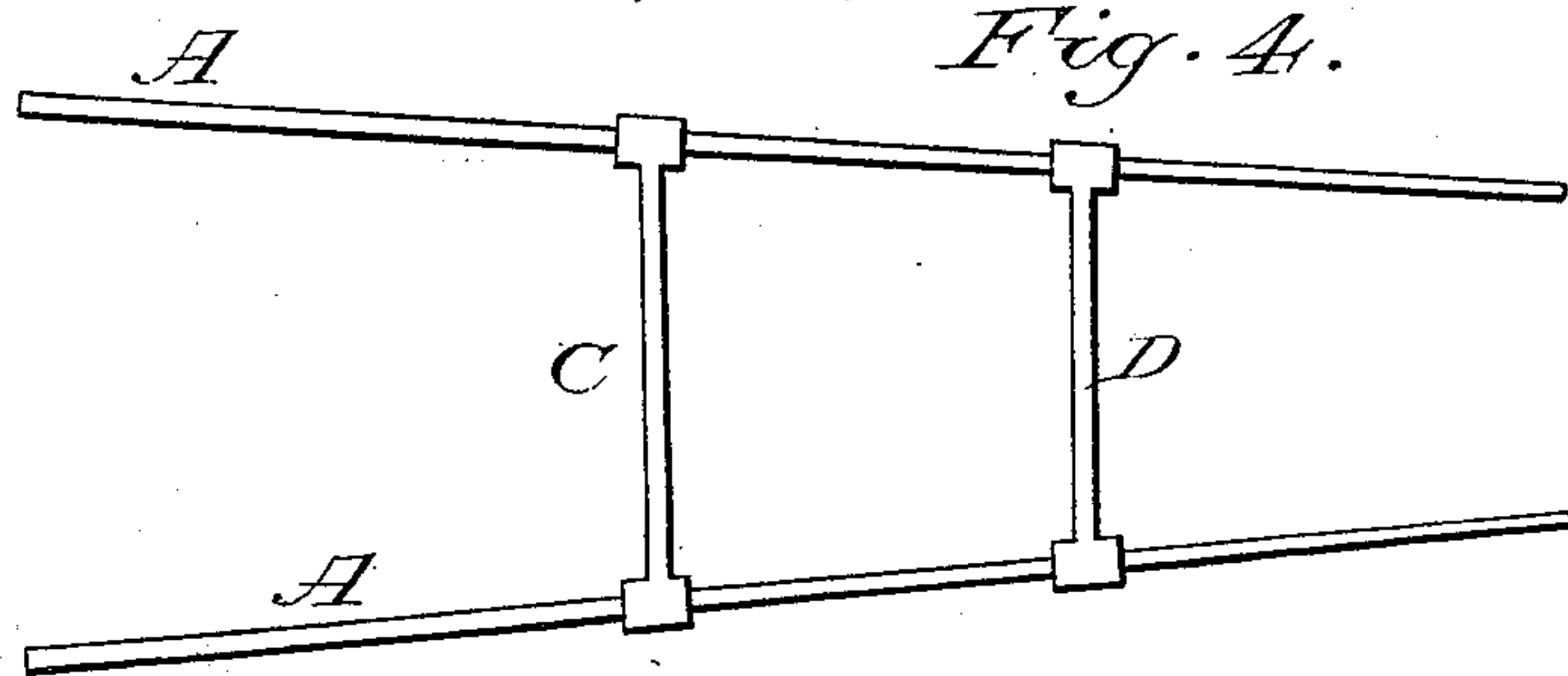
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Witnesses:*

*Charles Wren*  
*D. Wren*

*Inventor:*

*William C Wren*

# UNITED STATES PATENT OFFICE.

WILLIAM C. WREN, OF BROOKLYN, NEW YORK, ASSIGNOR TO JOSEPH ANNIN, OF SAME PLACE.

## WHEELBARROW.

SPECIFICATION forming part of Letters Patent No. 246,584, dated August 30, 1881.

Application filed June 25, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. WREN, of the city of Brooklyn, State of New York, have invented an Improvement in Metallic Wheelbarrows, (for which I have not received a patent in any foreign country,) of which the following is a specification.

Ordinarily the frames of metallic wheelbarrows are made of tubular, channel, or T iron, and the cross-bars of such frames are fitted and fastened to the side bars by bolts passing through said side and cross bars, which bolts materially weaken said frame; or both sides of the frame are made of one piece and passed around the front of the wheel and fastened to the body or tray of the wheelbarrow by clips.

The object of my invention is to have a better and stronger frame, and at the same time allow the body of the wheelbarrow to be replaced when worn out without taking the whole wheelbarrow to pieces.

To this end the invention consists in the combination of the tubular sides of the frame, (marked A and shown in Figs. 1 and 5,) said sides being bent to suitable shape to form a handle at one end, and at the other end is bent back and flattened, as shown at K, for the purpose of forming a brace or stay for the front of the body of the wheelbarrow.

D is the front cross brace or bar, and C the hinder cross-brace. Said cross-braces are made of malleable iron or cast-steel. If made of malleable iron or cast-steel, the said braces are cast of sufficient length to make the width of the barrow-frame, with an eye or piece like an ordinary gas-pipe T on each end. Said eyes are made a trifle smaller in the inside diameter than the outside diameter of the tubes A A, composing the sides of the barrow, and when put together said eyes on the cross-braces are to be heated and slipped over the side bars into proper position, and the said frame, composed of the two side bars, A A, and cross-braces C D, will be strong without bolts or rivets.

In the accompanying drawings, Figure 1 is a longitudinal section, on a perpendicular line, through the center. Fig. 2 is a cross-brace for the frame (marked C) and the tubular legs of the wheelbarrow, (marked H.) Fig. 3 is the

front cross-brace of the frame, (marked D.) Fig. 4 is a plan view of the frame of the barrow, composed of the sides A A and the cross-braces C and D when put together. Fig. 5 is a view of one of the sides A, both sides being similar, showing the bend for the handle on one end, and on the other end showing the return-bend with the flattened part (marked K) to form a brace for the front of the body of the barrow.

When the cross-braces are made of wrought-iron they are forged to the shape as shown in the drawings, and described as above for steel and malleable iron.

The legs of the barrow, as shown at H H, Figs. 1 and 2, are made of pieces of tubing, the tubing threaded on one end and tapped into the eye of the cross-brace D, for which purpose a suitable offset is made on the eye of the cross-brace D, and the other end of the tube for the legs H is flattened and riveted or bolted to the cross-piece D in the center between the eyes, thus making the cross-piece and the legs H H in one piece, as shown at Fig. 2.

When the side pieces, A A, and the cross-pieces D and C (said cross-brace C being fitted with the tubular legs H H) are put together as hereinbefore described, a diagonal brace made of a piece of strap-iron (marked E) is riveted to the bottom curve of the leg H and fastened to the cross-brace C, as shown at E, Fig. 1.

The barrow tray or body (marked B, Fig. 1) is made in the usual manner, and fastened on the bottom to the braces C and D, also fastened on the front to the ends of the side bars, A A, at K. As the pan or body of the wheelbarrow is the part that always wears out first, by making the frame of the barrow in the manner above described the body can be renewed or replaced at any time at small expense.

The wheel F, Fig. 1, is made of malleable iron or cast-steel, of shape shown. When the wheel is made of malleable iron (which is cast in a mold to shape) or of cast-steel the axle can be cast in one piece with the wheel, making a more homogeneous and stronger piece of work than when the wheel is made of part wrought-iron and part cast-iron, and a much stronger wheel than where the wheel is made of wrought-iron, with the rim, spokes, and hub riveted together. Having the spokes of the wheel of



the shape shown, when the wheel is cast the unequal contraction between the spokes and rim is in a measure overcome.

5 If the tubular handles or sides A A of the wheelbarrow-frame at the return bent end are allowed to project a short distance in front of the wheel, as shown at Fig. 1, when the barrow is tilted to dump the load the barrow will not run back.

10 I am aware that wheelbarrows have heretofore been made wholly or in part of metal with tubular, channel, and T iron sides and handles.

What I claim as my invention is—

1. A wheelbarrow-frame composed of two side bars and two cross-bars, C D, provided with 15 eyes which fit upon the side bars and shrink thereon, substantially as described.

2. A wheelbarrow-frame composed of two side bars, having the forward bend and flat bearing K and two cross-bars, C and D, substan- 20 tially as described.

WILLIAM C. WREN.

Witnesses:

E. L. FORCE,

GEORGE L. BENTON.