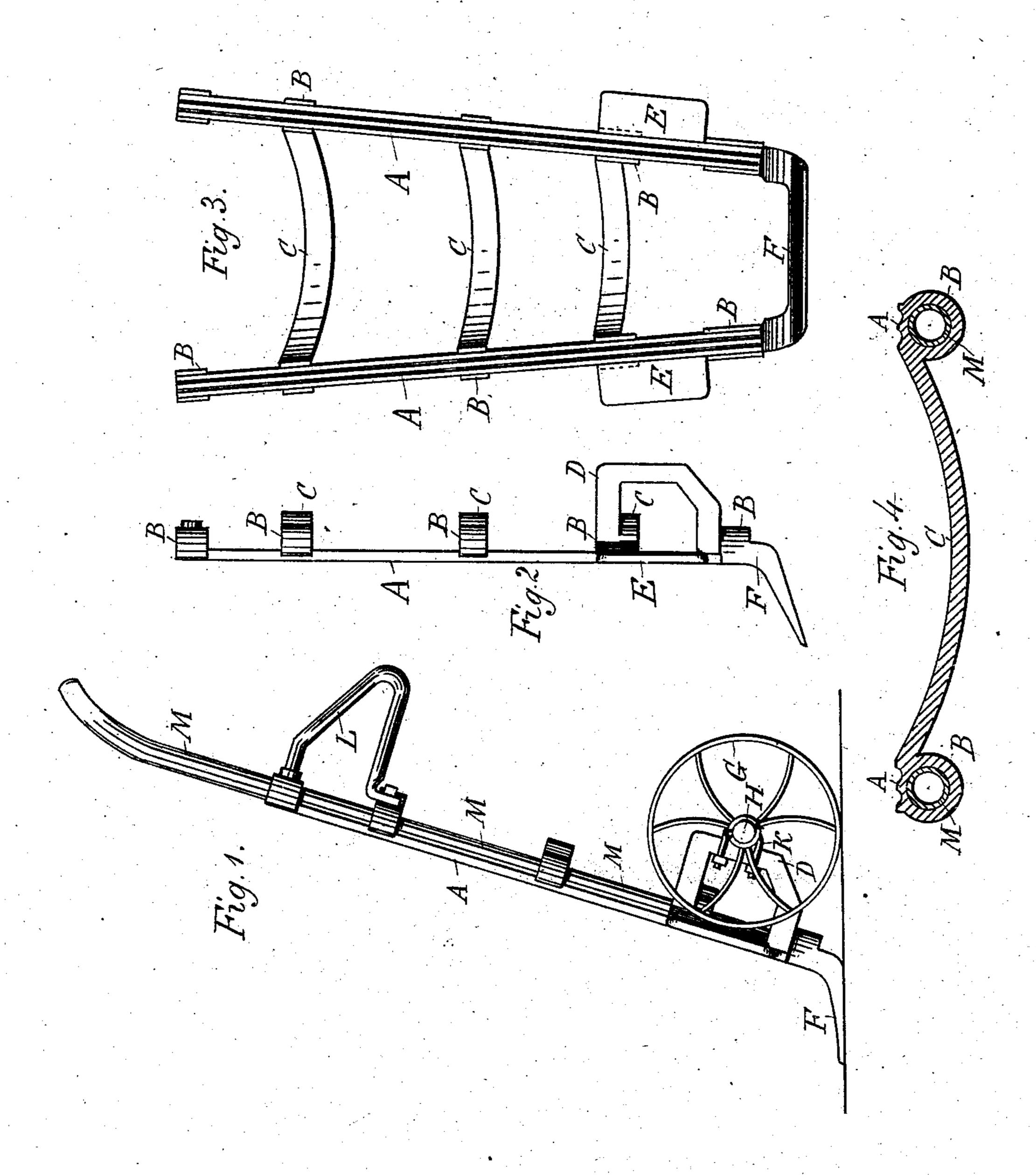
(No Model:)

W. C. WREN.

HAND TRUCK.

No. 292,609.

Patented Jan. 29, 1884.



WITNESSES
Went Lowe
Challren

INVENTOR William C. Mren

## United States Patent Office.

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

## HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 292,609, dated January 29, 1884.

Application filed November 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. WREN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Hand-Truck, of which the following is a specification.

My invention relates to hand-trucks used for moving loads in stores, or on docks and other places; and the object of my invention isto produce a cheap, durable, and indestructible hand-truck for these purposes. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the truck. Fig. 2 is a side elevation of the frame or bail. Fig. 3 is a plan view of the bail or frame. Fig. 4 is a cross-section of a cross-bar, C, thimble B, and bail A.

Similar letters refer to similar parts throughout the several views.

The parts marked A represent the bail, which, with the cross-bar C, sockets or thimbles B, nose-piece F, and wheel or pillow-25 blocks D, together form the frame. These parts, as shown at Figs. 1, 2, and 3, if made of wrought-iron, are welded together, so as to form one piece; or if made of a cast metal are cast in one piece.

The handles or side bars, M, for lightness, are made of metal tubing, and are inserted or driven through and into the thimbles B, attached to the sides of the bail A, as shown at Figs. 1 and 4.

The wheel-guards E are also formed in one piece with the bail A, or they can be separate and inserted between the bail and the handles M.

The leg is made of a separate piece of metal, and is attached to the thimbles B by a socket and bolt, as shown at L, Fig. 1.

The axle H, on which the wheel C turns, is placed under the pillow-block D, and is held to the pillow-block by a bolt and strap, as

The cross-bars C are made in the curved form shown at Fig. 4, to prevent barrels or round articles from rolling off the sides; and

also, when the bail is cast, to prevent the bail or frame from warping by the unequal expan- 50 sion of the different parts.

Having the bail or frames constructed as shown, with the nose F, side pieces, A, thimbles B, wheel or pillow blocks D, and wheelguards E, all made in and of one piece of 55 metal, it is then heated to redness and the handles M are driven into and through the thimbles B the whole length of the bail A until the ends reach the nose part F. If the inside diameters of the thimbles B are slightly small- 60 er, or are the same as the outside diameter of the tubular handles M, heating the bail will enlarge them; and if the handles M, when cold, are then forced or driven into the sockets the shrinkage of the thimbles will hold the han- 65 dles rigidly in the sockets under the bail A, thus forming a rigid indestructible truck.

It is a well-known fact that when trucks are made of wood and iron and joined together by bolts or rivets, or when made of iron and 70 mortised and riveted, or bolted and riveted together, the parts at the mortise, rivet or bolt holes are weak and very soon rattle themselves to pieces. In my invention there is not one hole anywhere to weaken the frame, and 75 neither bolts nor rivets to rattle loose.

What I claim as my invention is—

1. A truck-frame composed of the sides A, having sockets B for the insertion of handles, the cross-bars C, nose F, and wheel or pillow 80 blocks D, all formed of one piece of metal, substantially as shown and described.

2. In a hand-truck, the combination, with a frame, A, having the thimbles B, nose F, and wheel-block D, all of one piece of metal, of the 85 tubular handles M, held in place by shrinkage of the thimbles, substantially as shown and described.

3. In a hand-truck, the leg L, in combination with a frame consisting of the sides A, 90 nose F, cross-bars C, wheel-block D, and sockets B, all substantially as shown and described.

WILLIAM C. WREN.

Witnesses:

CHAS. WREN, WM. BENJAMIN.