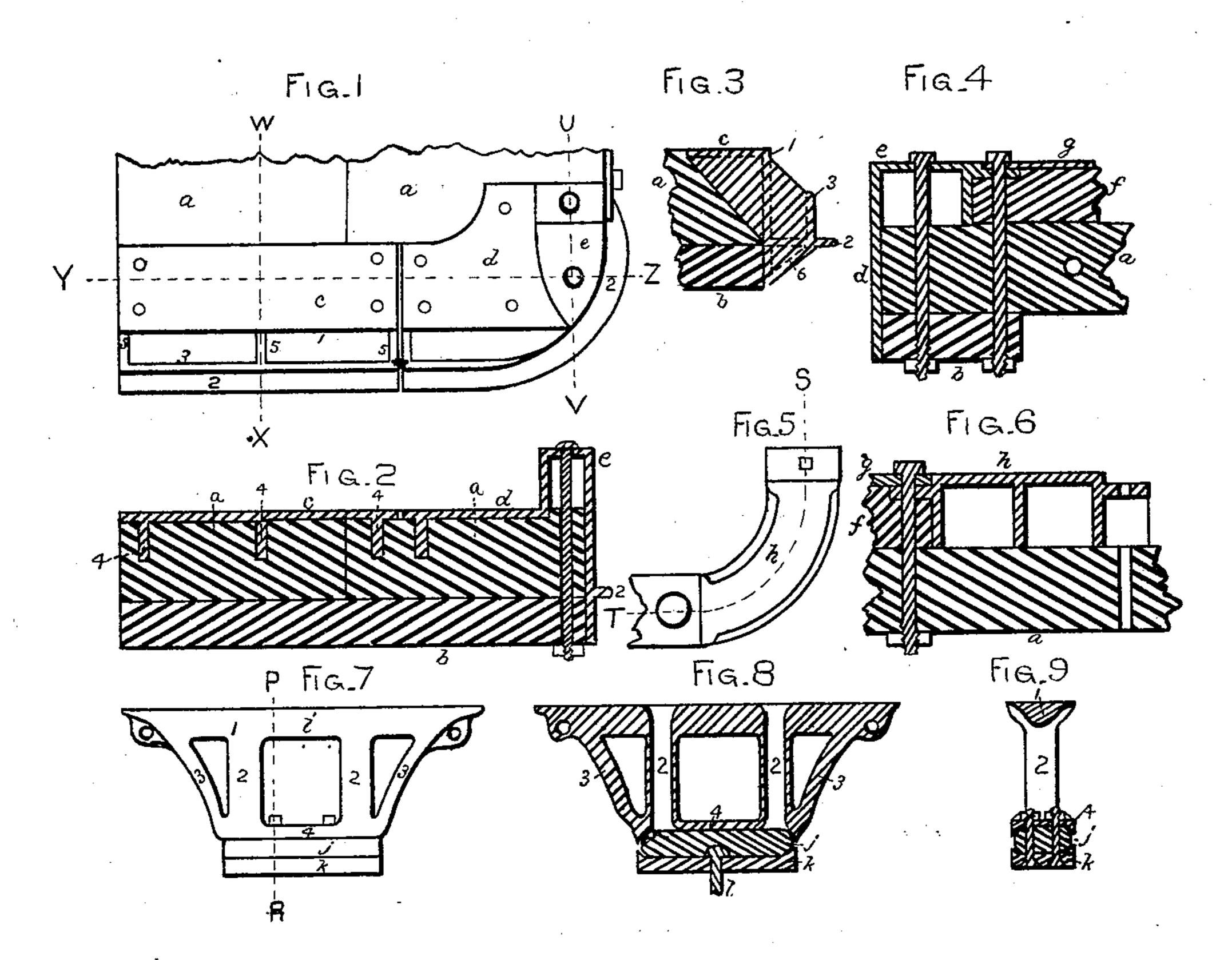
## T. W. PORTER. Wagons.

No. 143,030.

Patented September 23, 1873.



WITNESSES.

Franklin B. Colfamore, Herbert-O. Whitmun INVENTOR. I.M. Davis

## UNITED STATES PATENT OFFICE.

THOMAS W. PORTER, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN WAGONS.

Specification forming part of Letters Patent No. 143,030, dated September 23, 1873; application filed June 30, 1873.

To all whom it may concern:

Be it known that I, Thomas W. Porter, of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in "Caravans," of which

the following is a specification:

This invention relates to the class of vehicles used principally in cities for the purpose of transporting heavy merchandise from one section of the town to another; and the invention consists in a metallic angle-plate for the protection of the rear end of the body, embracing the top and ends of the floor-plank and the stay-bar; and also serving the purpose of a skid-rod when loading freight. It also consists in metallic shields for the rear corners of the body, which protect the top, edges, and ends of the floor-plank, and the end and edge of the stay-bar, and receive the ends of the side curb-rails and the cap-plate. It also consists in a front-corner elbow, which is formed cellular, with cavities and recesses to receive the front and side bars of the curb, and the cap-plates which protect the same. It also consists in a cast metal rocker, by which the body is attached to the forward wheels.

Figure 1 is a top or plan view of one-half of the rear end of a caravan, having the angle-plate and corner-iron attached. Fig. 2 is a vertical section taken on line Y Z, Fig. 1. Fig. 3 is a vertical section taken on line W X, Fig. 1. Fig. 4 is a vertical section taken on line U V, Fig. 1. Fig. 5 is a top or plan view of the front-corner elbow. Fig. 6 is a vertical section taken on line S T, Fig. 5. Fig. 7 is a front elevation of the rocker. Fig. 8 is a longitudinal vertical section of the rocker. Fig. 9 is a vertical transverse sec-

tion taken on line P R, Fig. 7.

In the drawings, a a represent the bottom or bed plank, and b is the stay-bar, which is placed transversely to the bed-plank. c is one section or length of the angle-plate, which consists of four angles or members, as shown by dotted lines in Fig. 3, the top plate or angle being marked e, a vertical angle marked 1 descending and covering the ends of the bed-plank and edge of the stay-bar, a horizontal angle marked 2 projecting from 1 and terminating in a shielding rib, while angle 3 rises vertically from this and serves as the bearing upon which the skids are hooked. A series of stays or ribs, marked 4, unite and

combine the strength of angles c and 1, while similar ribs, marked 5, unite angles 1 and 3, while ribs or angle 6 unite and strengthen angles 1 and 2. b is the corner-iron, which, where it meets the angle-iron, is formed with the configuration of cross-section, shown in Fig. 3. The part e is raised to correspond to the height of curb f and metallic cap-plate g, while bolts passing down through, and held by screw-nuts beneath the stay-bar, unite all the parts firmly together. In Figs. 5 and 6, h is the elbow, which is formed with sides and top, in the same manner as e in Fig. 2, and with cross ties or bars, as shown in Fig. 6. This elbow receives the curb f and plate g, as shown, and serves as the continuation or connection of the side and end curb, making a rounded corner which is cheap and durable. In Figs. 7, 8, and 9, i is the metallic rocker. j is a bar of wood interposed between the rocker and rocker-plate k. The rocker is formed with a part or bar, marked 1, upon which the body bears. It has also a bar or part, marked 4, resting upon wood j, while the two hollow pillars 2 2, and the braces 33, extend from part 1 to part 4. In Fig. 8, l shows the arrangement of the kingbolt; and in Figs. 8 and 9 the bolts uniting the rocker, the wood, and the rocker-plate together, are shown; and in these last-named figures can also be seen a recess, formed, respectively, in the top face of the rocker-plate and the bottom of part 4 of the rocker. By this form of construction, the wood j is enveloped at its edge and held from splitting or abrasion.

I claim as my invention—

1. The angle-plate c, formed to envelop the ends of the bed-plank, and with the skid-rest 3, substantially as described and shown.

2. The corner shield b, formed with the raised curb-socket e, and to receive the curb-plate, all substantially as described and shown.

3. The elbow h, formed cellular, and with sockets for curb f and seats for plate g, substantially as described and shown.

4. The metallic rocker i, formed with the plate 1, supports 2 3, and base-plate 4, sub-

stantially as described and shown.

THOMAS W. PORTER.

Witnesses:

MARY R. LANE,

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