

(No Model.)

J. M. & A. T. PRATOR.  
FOLDING STEP FOR VEHICLES.

No. 560,752.

Patented May 26, 1896.

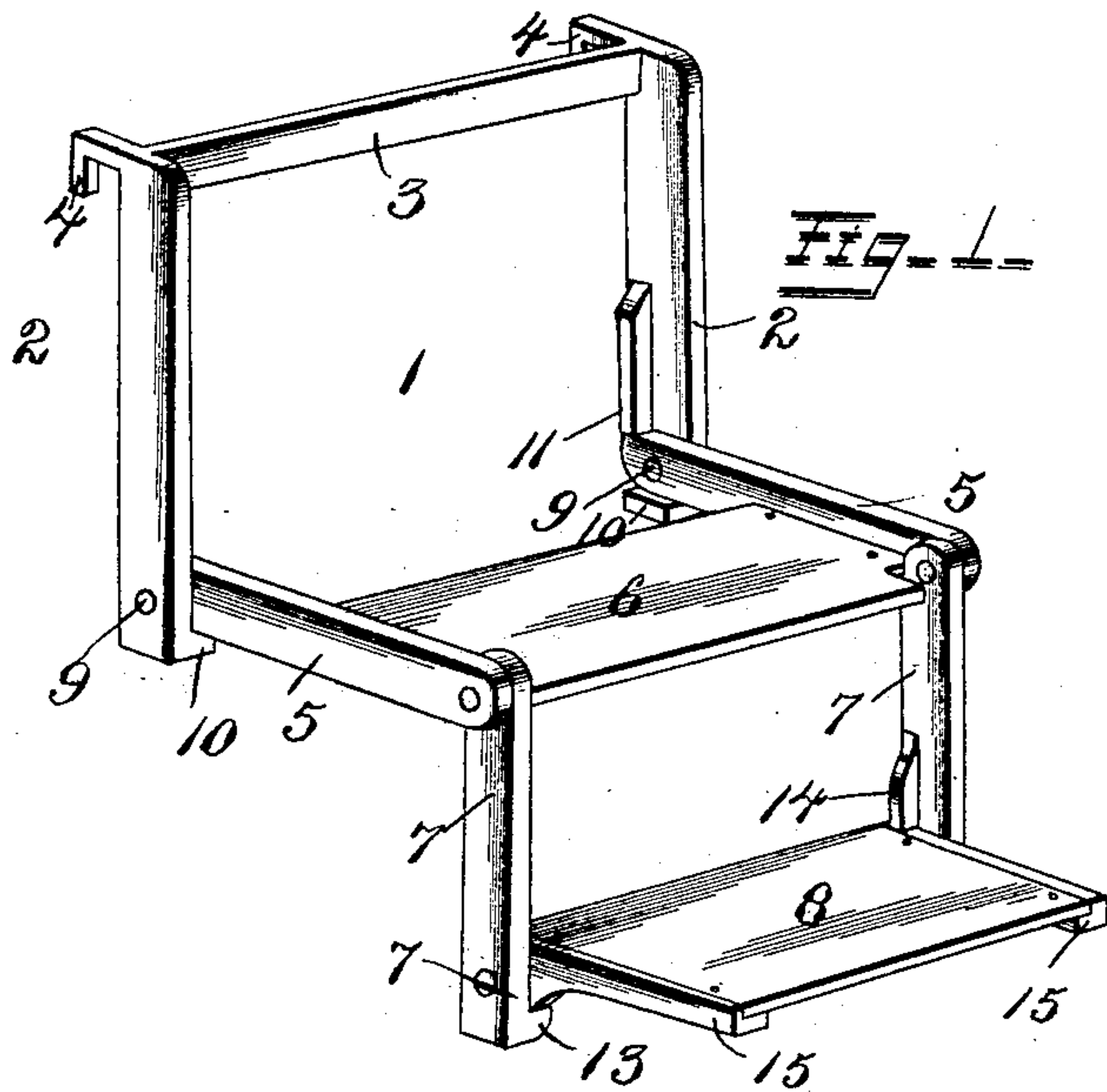


Fig. 2

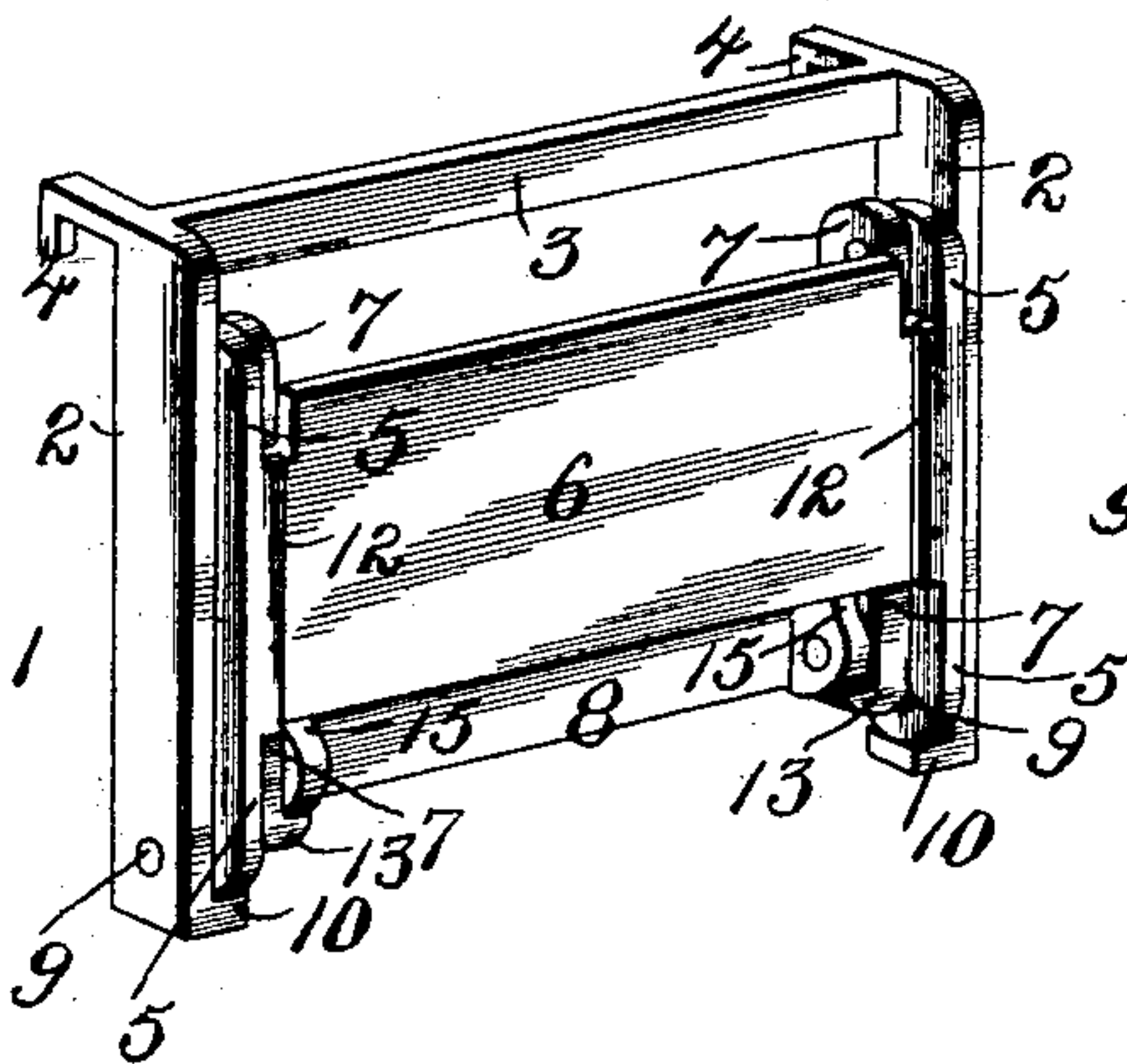
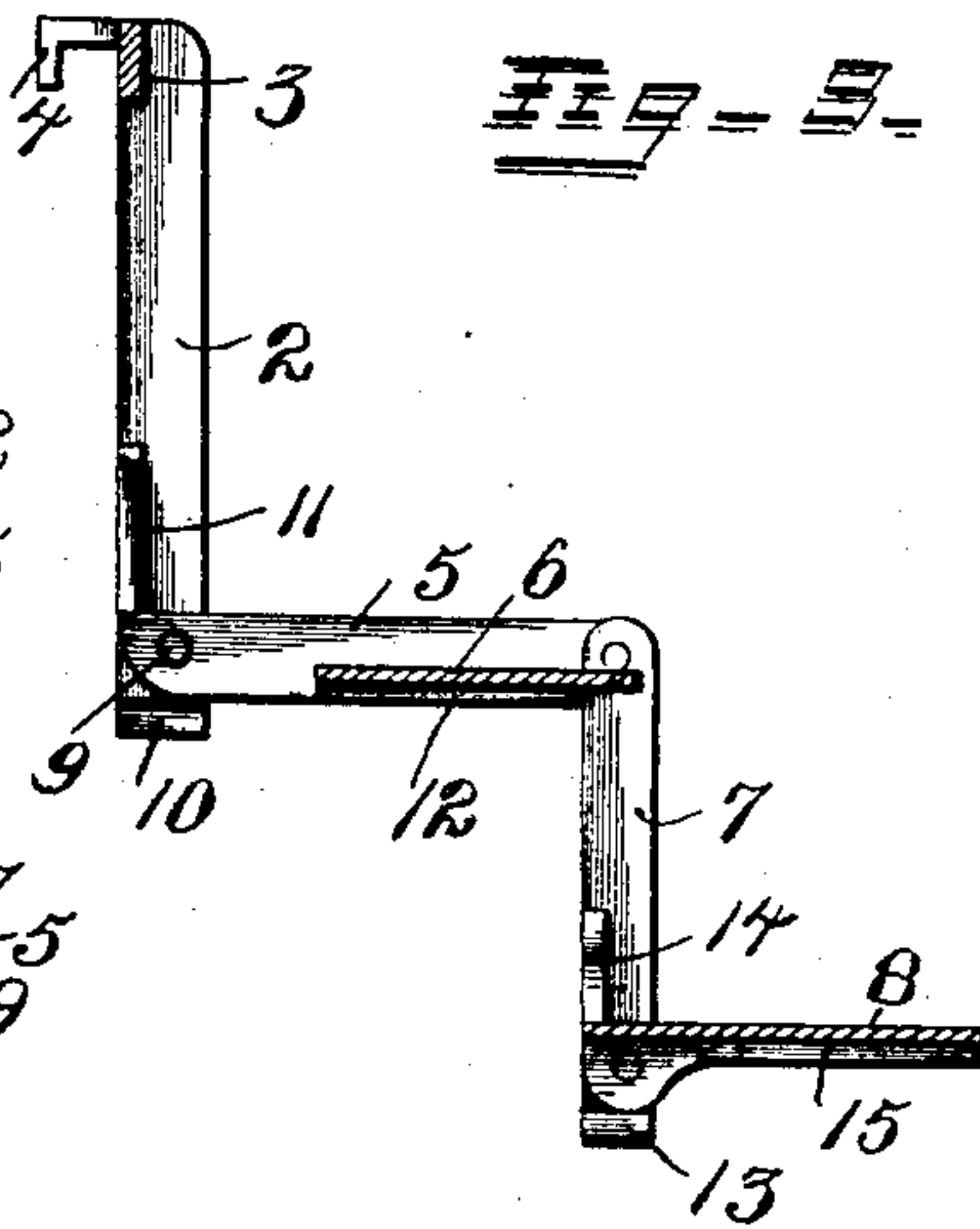


Fig. 3



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN M. PRATOR AND ALBERT T. PRATOR, OF MAGNOLIA, ARKANSAS.

## FOLDING STEP FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 560,752, dated May 26, 1896.

Application filed May 22, 1895. Serial No. 550,210. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN M. PRATOR and ALBERT T. PRATOR, citizens of the United States, residing at Magnolia, in the county of Columbia and State of Arkansas, have invented a new and useful Folding Step for Vehicles, of which the following is a specification.

The invention relates to improvements in folding steps for vehicles, and the object in view is to provide a portable folding device adapted to be applied to a vehicle of any ordinary construction and arranged, when not in use, within the vehicle.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of vehicle-steps constructed in accordance with our invention. Fig. 2 is a similar view, the steps being folded. Fig. 3 is a vertical sectional view, the parts being extended.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an approximately rectangular suspension-frame, comprising side hangers 2, connected at their upper ends by a cross-bar 3 and terminating at their upper ends in rearwardly-extending hooks 4, adapted to engage the upper edge of the side of a vehicle-body, whereby the steps are detachably suspended therefrom. The frame 1 is preferably constructed of metal and the lower extremities of the hangers are intumed to form integral supporting lugs or stops 10. Above the plane of the supporting-lugs are vertical stops 11, arranged flush at their rear sides with the rear edges of the hangers and terminating at their lower ends above the plane of the lugs 10 to form intervals equal to the width of horizontal tread-bars 5, which are pivoted, as at 9, in contact with the inner surfaces of the hangers, whereby when said tread-bars are in their normal positions, as shown in Figs. 1 and 3, their upper edges are in contact with the lower extremities of the vertical stops 11 and their lower edges rest upon the intumed lugs or stops 10. The pivots 9 are arranged between the vertical planes of the

stops 11 and the front edges of the lugs 10, and the intervals between the front sides of the stops 11 and the front edges of the hangers are approximately equal to the width of the tread-bars 5. The lower edges of the tread-bars are integrally flanged, as shown at 12, to form supports for the tread 6, the extremities of the latter being secured thereto.

Pivotally connected to the front ends of the tread-bars 5 are auxiliary hangers 7, the pivot-points of which are above the plane of the tread 6, as shown clearly in Fig. 3, whereby rearward swinging movement of said auxiliary hangers beyond a vertical plane, as indicated in Figs. 1 and 3, is prevented by contact with the front edge of the tread 6. The front edge of the tread 6, contiguous to the auxiliary hangers, is preferably notched, whereby the intermediate portion of said edge may extend approximately to the front extremities of the tread-bars 5 without interfering with the operation of the hangers 7. The lower extremities of the hangers 7 are intumed, as shown at 13, to form supporting lugs or stops similar to the lugs 10 on the main hangers 2, and in the same way vertical stops 14 are arranged at the inner surfaces of said auxiliary hangers flush with the rear edges thereof. Tread-bars 15 are pivoted to the inner surfaces of the auxiliary hangers 7 to support the tread 8 and are flanged, as described, in connection with the tread-bars 5. The pivot-points of the tread-bars 15 are arranged in the same positions with relation to the stops 13 and 14, as above described in connection with the stops 10 and 11, whereby when the tread 8 is in its horizontal or normal position the upper edges of the tread-bars 15 bear against the lower extremities of the stops 14, while their lower edges rest upon the supporting-lugs 13. When folded, the lower tread is arranged between and in the plane of the auxiliary hangers 7, and the latter are folded upon the tread 6 and between the tread-bars 5, said tread-bars 5 and tread 6 being then folded between the plane of the main hangers 2. Hence when folded the steps occupy a space bounded by the frame 1, and the device may be readily detached and placed within the vehicle or used in connection with a number of vehicles successively.

It will be seen that the essential feature of



the improved construction resides in the relative arrangement of the stops on the hangers and the pivotal points of the tread-bars, whereby when in operative position the pivots whereby the tread-bars are connected to the hangers are entirely relieved of strain. Hence said pivots serve merely to prevent disarrangement of the parts of the apparatus and may be made of light rivets or bolts without in any way detracting from the efficiency of the construction. The stops 11 and 14 are preferably formed integral with the hangers, whereby they are respectively supported.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described our invention, what we claim is—

Portable folding steps for vehicles having transversely-connected vertical hangers provided at their upper extremities with means for engagement with the side of the vehicle-body and at their lower extremities with in-

turned integral lugs or stops 10, vertical stops 11 flush with the rear edges of the hangers and terminating at their lower ends above the plane of the lugs or stops 10, flanged tread-bars pivotally connected to the inner surfaces of the hangers between the horizontal planes of the lugs 10 and the lower extremities of the stops 11 and between the vertical planes of the stops 11 and the front edges of the lugs 10, whereby when the tread-bars are in their normal positions their upper edges, in rear of their pivotal points, are arranged in contact with the lower extremities of the stops 11 and their lower edges, in front of their pivotal points, are arranged in contact with the lugs 10, to relieve the pivots of strain, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN M. PRATOR.

ALBERT T. PRATOR.

Witnesses:

J. F. MAGALE,

C. W. MCKAY.