No. 712,910. Patented Nov. 4, 1902.

J. A. COSTA.

HACK.

(Application filed May 6, 1902.)

(No Model.) 3 Sheets—Sheet 1.

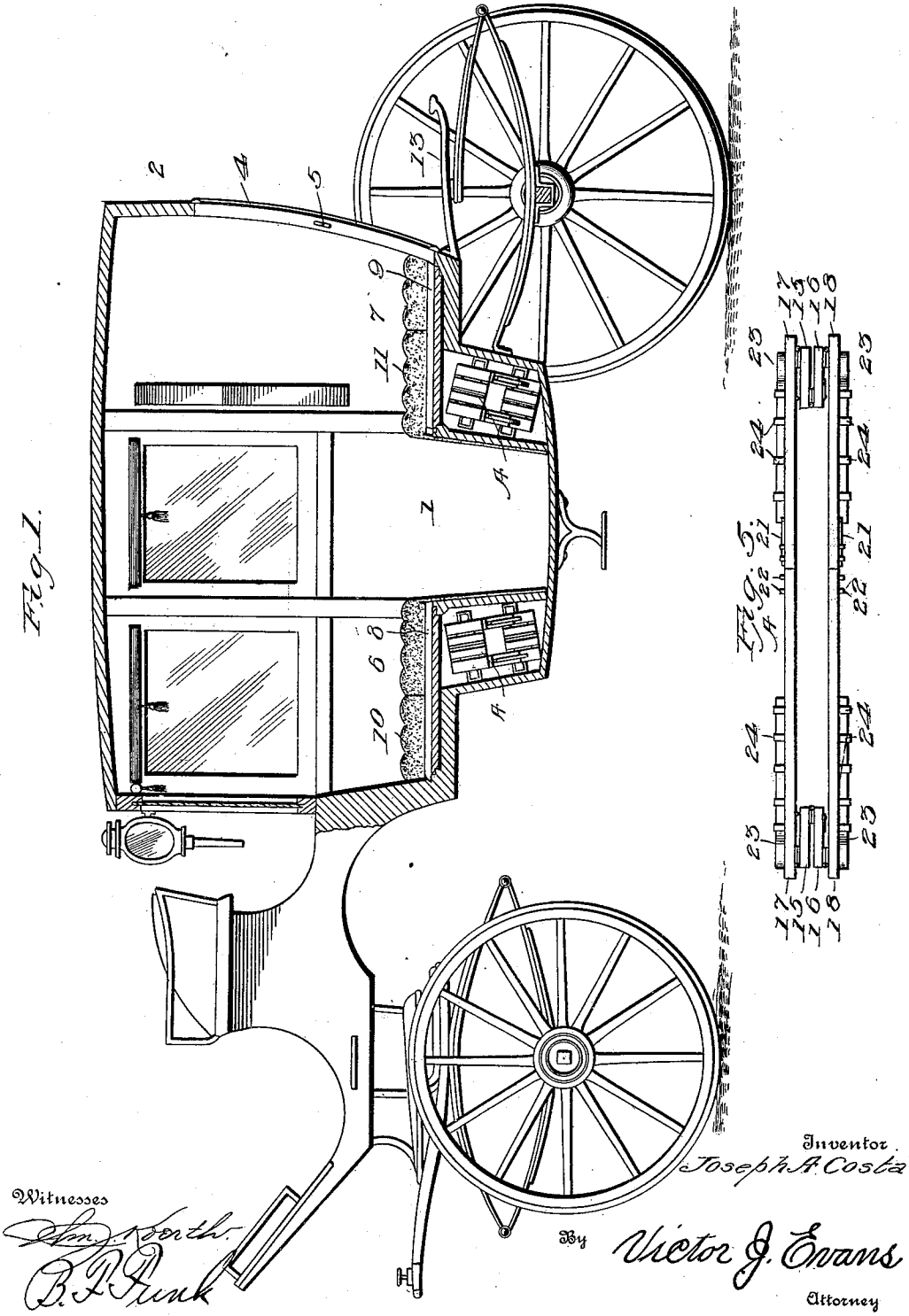


Fig. 1.



Fig. 2.

Witnesses

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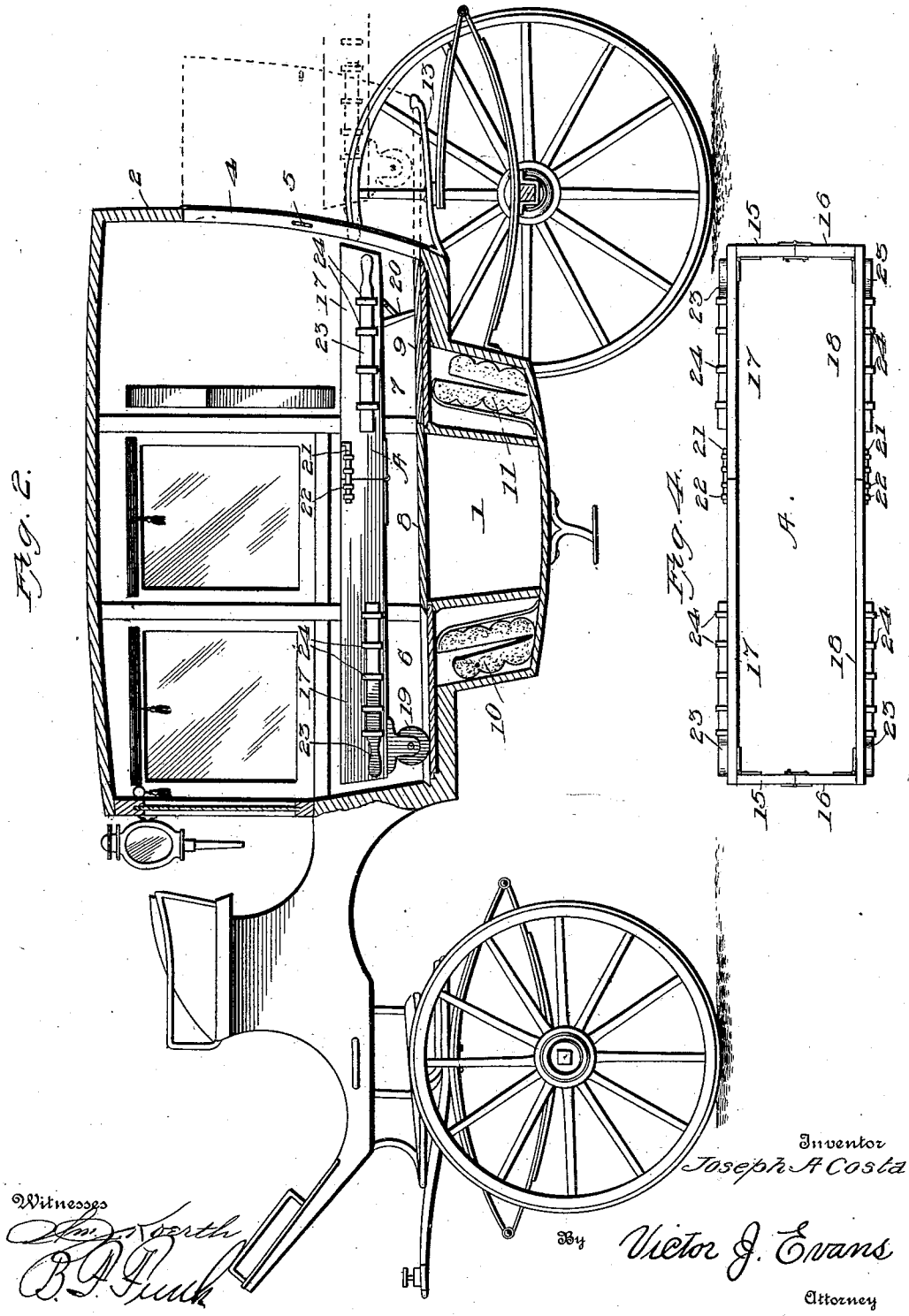


Fig. 2.



Fig. 4.

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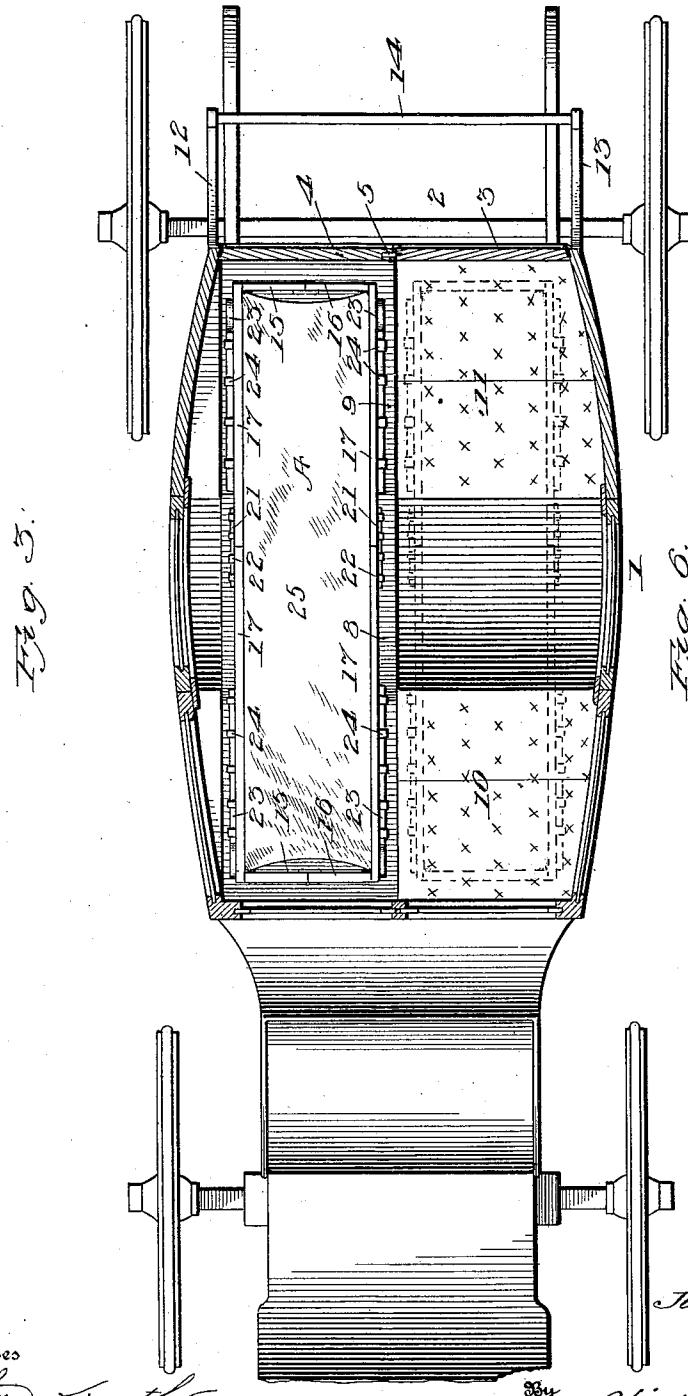


Fig. 5.

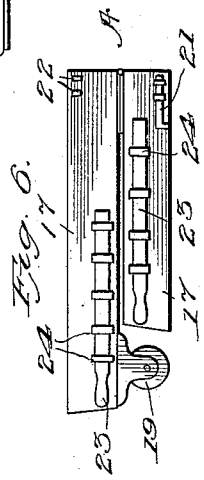


Fig. 6.

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# UNITED STATES PATENT OFFICE.

JOSEPH A. COSTA, OF EAST CAMBRIDGE, MASSACHUSETTS.

## HACK.

SPECIFICATION forming part of Letters Patent No. 712,910, dated November 4, 1902.

Application filed May 6, 1902. Serial No. 106,171. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH A. COSTA, a citizen of the United States, residing at East Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Hacks, of which the following is a specification.

This invention relates to a combined hack and ambulance; and the primary object thereof is to construct an ordinary hack in such a manner that it may be instantly used as an ambulance for conveying persons in a reclining position from one place to another.

In arranging the device no material departure is to be made from the ordinary construction of hack, although it will be necessary to introduce some slight alterations to permit the hack to be accommodated to the different uses to which it is to be put. However, normally the appearance of the vehicle will not be unattractive, and when in ordinary use it will be impossible to distinguish any difference from the common type of hack or landau.

In order that the advantages resulting from a construction such as is contemplated by me can be fully appreciated, reference should be had to the accompanying drawings in connection with the description.

In the drawings, Figure 1 is a vertical longitudinal sectional view of a hack constructed in accordance with my invention, showing the stretchers stowed under the seats. Fig. 2 is a similar view illustrating the stretchers in operative position. Fig. 3 is a horizontal sectional view of the same. Fig. 4 is a top plan view of an improved form of stretcher. Fig. 5 is a plan view showing the stretcher partially collapsed, and Fig. 6 is a side elevation of a stretcher totally collapsed.

Referring to the drawings by numerals of reference, 1 designates a hack or vehicle of like nature, provided with the ordinary construction of body and running-gear. The back 2 of the body is provided with a pair of outwardly-swinging doors 3 and 4, one of said doors being provided with a suitable lock or bolt 5, designed to engage a strike on or in the other door, whereby they will normally be prevented from opening. The doors are constructed so that their edges fit tight against the edges of the opening in the back of the hack, thus avoiding an unsightly appearance.

The body of the hack is provided with the usual box-like seats 6 and 7, on top of which are supplemental seats 8 and 9, adapted to slide rearwardly to constitute a portion of stretcher support and way, as will be presently explained. It will be noticed that the top of the seats are on the same horizontal plane as the bottom edge of the opening in the back of the vehicle. By removing the cushions 10 and 11 the supplemental seats 8 and 9, which are preferably boards, may be slid rearward. The rear board 9 will extend through the opening in the rear of the vehicle and rest upon the jacks 12 and 13, the ends of which are connected by a transverse supporting-box 14, on which the free end of the board 9 may rest. The board 8 will then be slid rearward until one end rests upon the front edge of the rear seat and the other end on the rear edge of the front seat. The cushions 10 and 11 may then be placed inside the box-like seats after having first removed either one or both stretchers, it being understood, of course, that there is a stretcher stored within each seat. With the supplemental seats thus extended either one or two stretchers may be guided into the vehicle through the opening above described. The stretcher, to be described hereinafter, is of approximately one-half the width of the vehicle, so if only one invalid is to be carried the attendant may ride within. If, however, two stretchers are employed, the attendant must ride outside.

The stretchers, which are constructed so as to collapse to be stored within the box-seats, each consists of an approximately rectangular frame, the end bars 15 and 16 of which are hinged intermediate their ends and fold inward on the side bars 17 and 18, which are in turn hinged a slight distance from their center and at their bottom edges to permit them to fold upon themselves. Inasmuch as casters 19 are carried by one end of each side bar, it is necessary to hinge the bars beyond the center to permit the opposite end of the stretcher to clear them when the device is folded. Pivoted standards 20 are arranged on the side bars 17 and 18 adjacent the ends most distant from the casters to support the stretcher in a horizontal position.

In order to prevent hinged sections of the

side bars folding upon themselves, bolts 21 are provided, which are carried by one section of each bar and slide in keepers 22 in the opposite member of the bar. Extensible and retractable handles 23 are provided on the respective ends of each bar and which slide in guide-loops 24, whereby the handles may be retracted when the stretcher is in the vehicle and extended when the stretcher is to be moved therefrom or for other purposes.

In order to provide a bottom for the stretcher, I provide a stout piece of suitable fabric 25, which is flexible and is tacked or otherwise secured to the skeleton frame above described.

From the foregoing it will be seen that by arranging the hack in accordance with the plan above explained said vehicle may be converted at any time into an ambulance. It will also be apparent that I have provided a very convenient, efficient, and desirable arrangement for accomplishing the purpose sought to be effected.

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

1. The combination with a vehicle having a normally closed opening in the back thereof, seats within the vehicle, sliding supplemental seats on the first-named seats, one supplemental seat being adapted to slide and rest on the edges of two of the interior seats, and the supplemental seat of the other seat being adapted to slide through the opening in the rear of the vehicle, thereby a continuous way is formed for the reception of a stretcher.

2. The combination with a vehicle having a normally closed opening in the back thereof; of two parallel seats within the same, and sliding supports normally covering the seats, the support on one seat being adapted to slide and rest upon the edge of the other seat, and the support on the last-named seat being adapted to slide rearward to project through the opening in the rear of the vehicle.

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

JOSEPH A. COSTA.

Witnesses:
GEORGE G. AVERILL,
CLIFFORD P. HOLT.