

(No Model.)

2 Sheets—Sheet 1.

C. W. WILBOR.
VEHICLE.

No. 527,470.

Patented Oct. 16, 1894.

Fig. 1

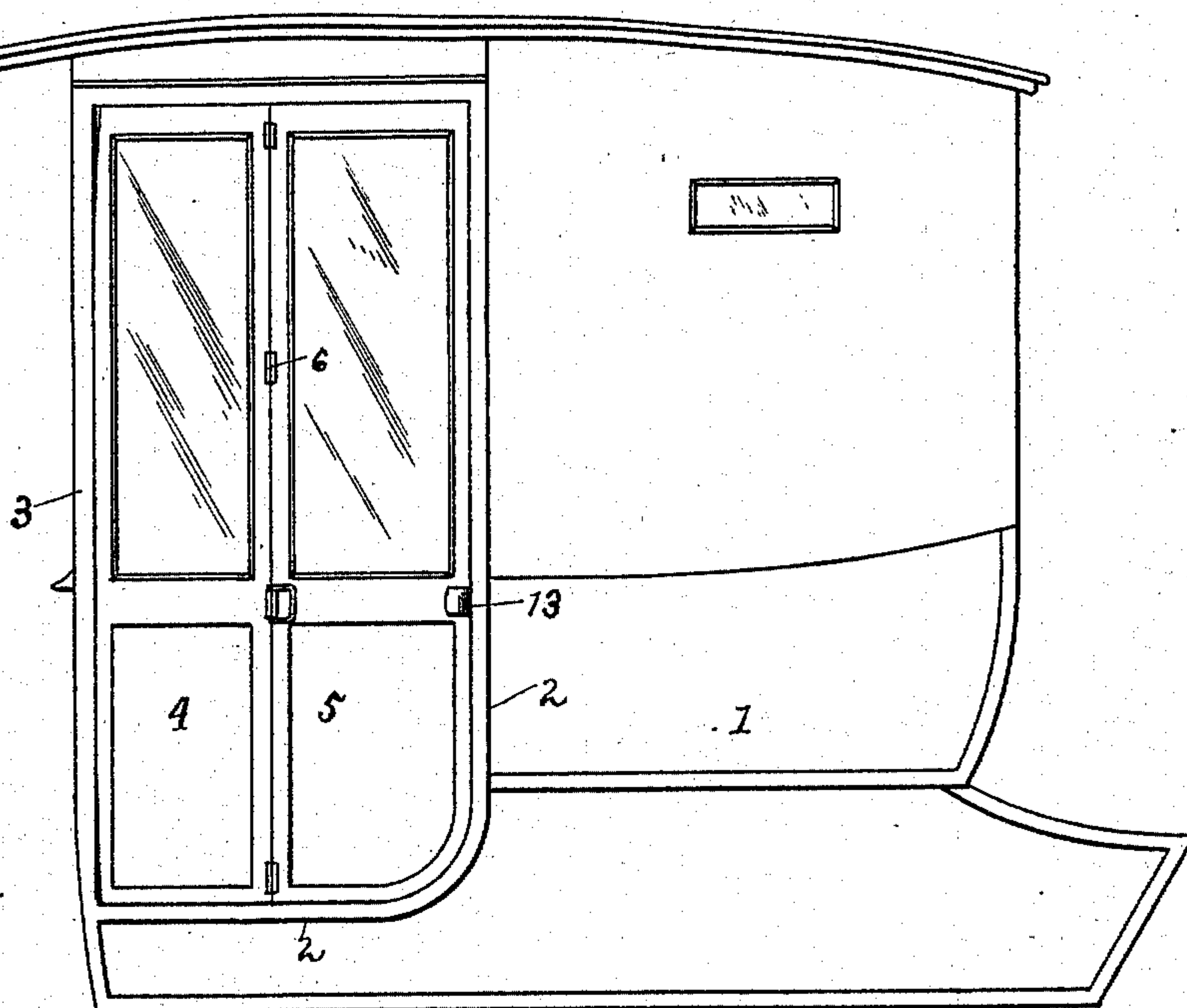
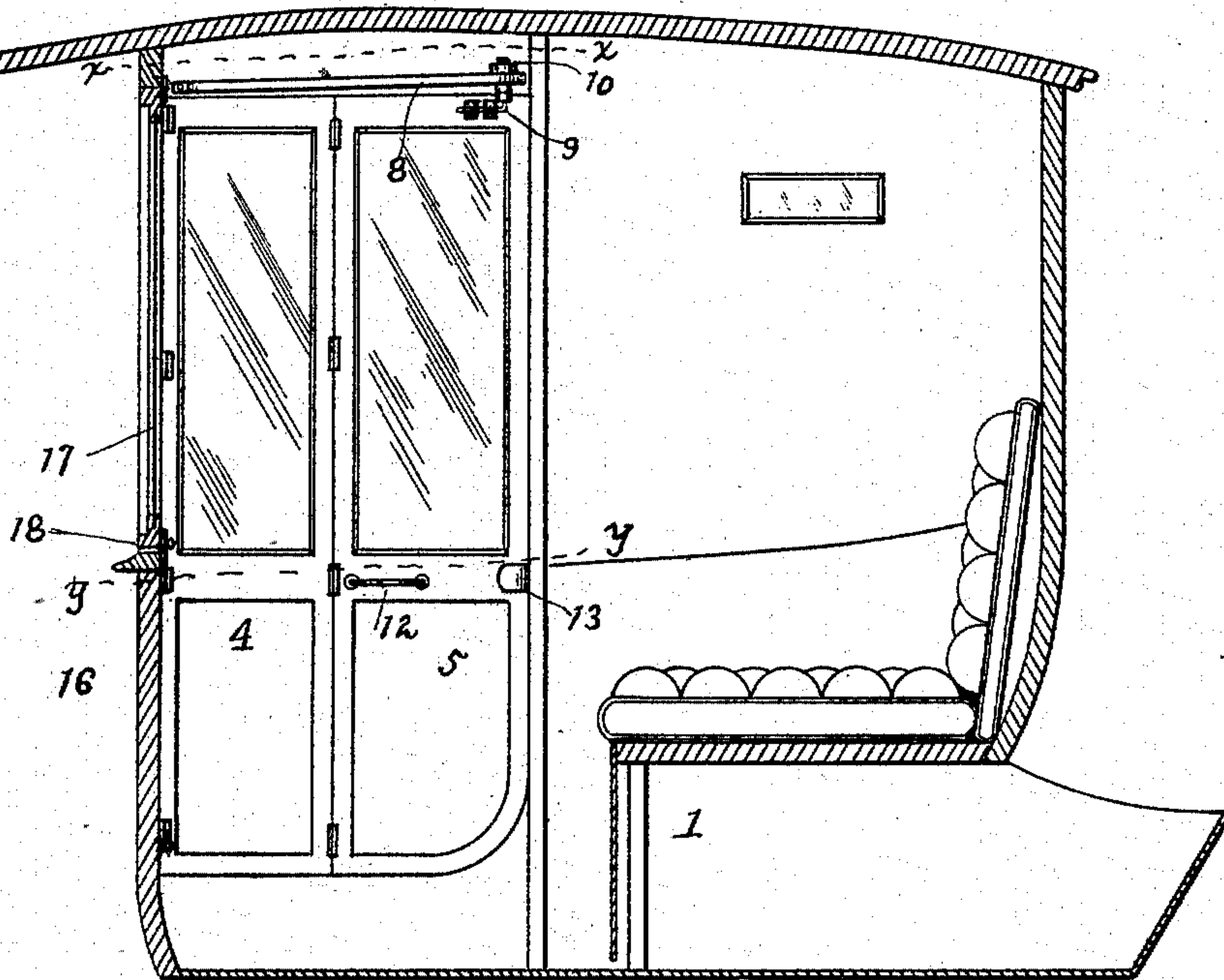


Fig. 2



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Fig. 3.

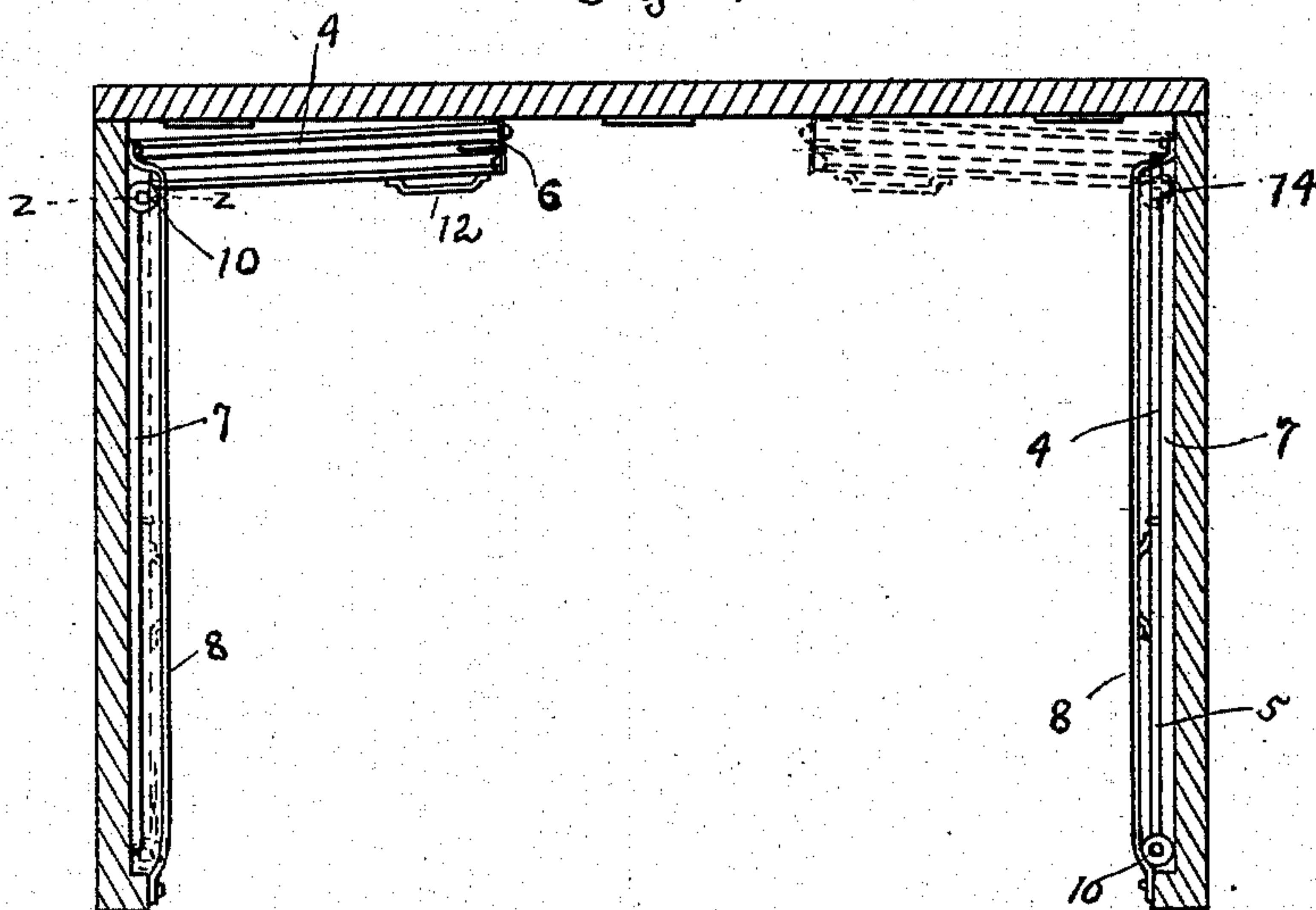


Fig. 4.

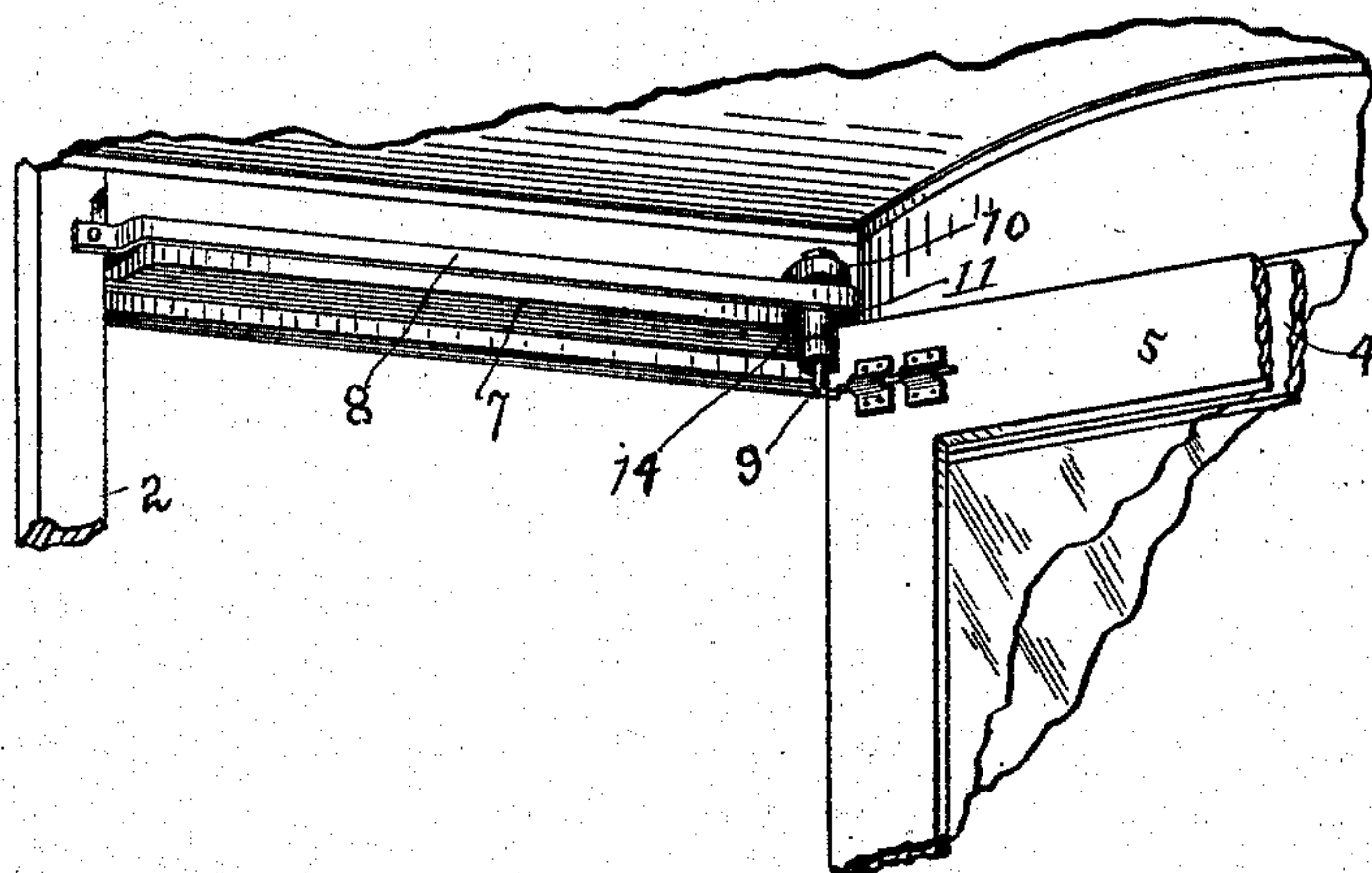


Fig. 5.

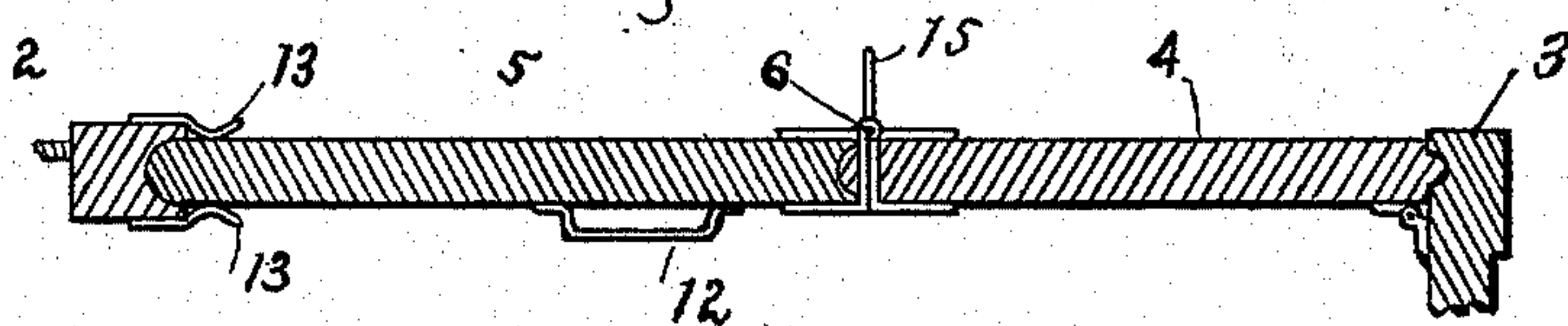
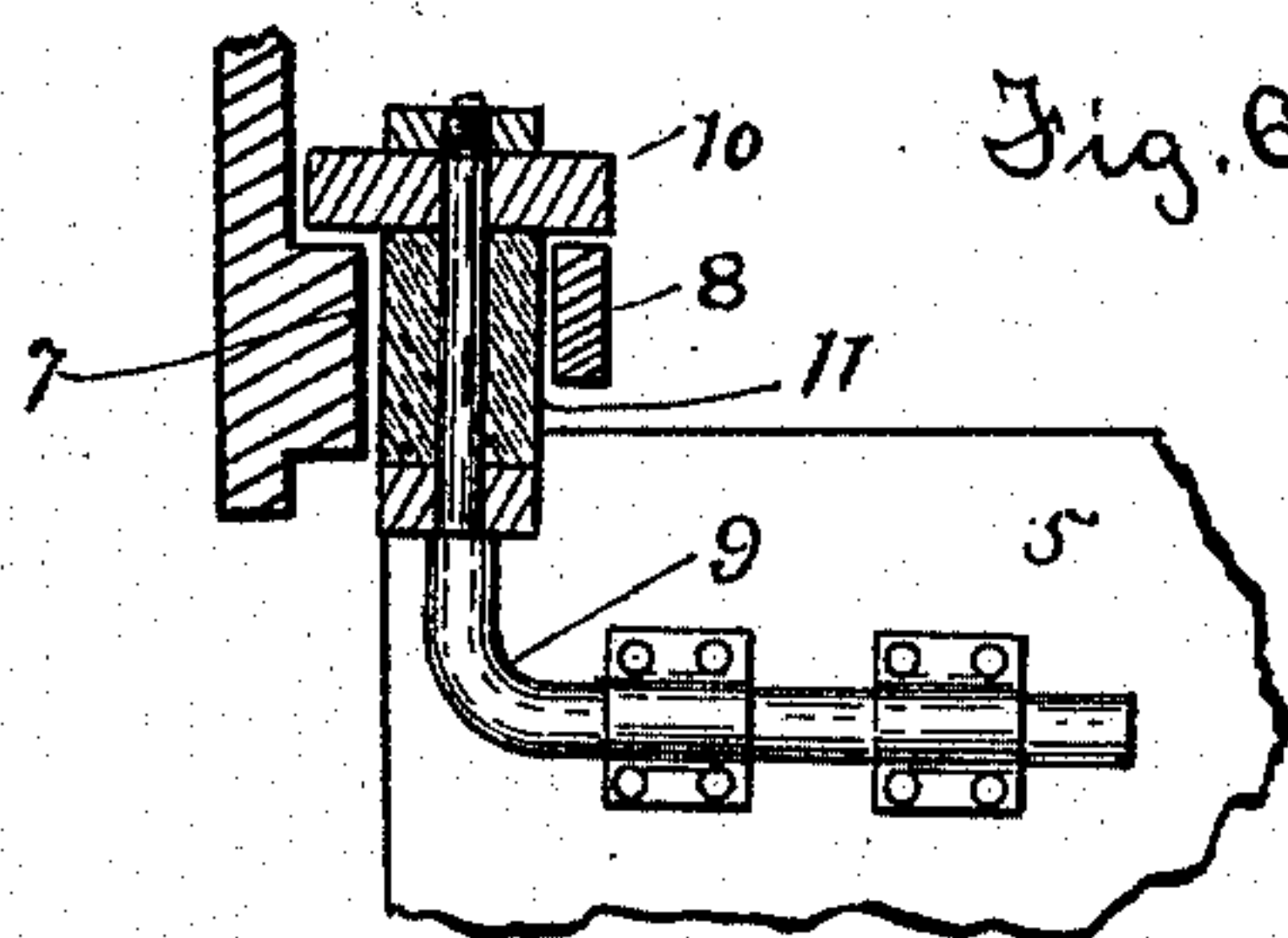


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES W. WILBOR, OF ROCHESTER, NEW YORK.

VEHICLE.

SPECIFICATION forming part of Letters Patent No. 527,470, dated October 16, 1894.

Application filed December 20, 1893. Serial No. 494,190. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. WILBOR, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention has for its object to improve that class of vehicles particularly adapted for physicians' use, in which it is desirable that the occupants be protected from the weather, though it is readily adapted to other class of vehicles, and to these and other ends it consists in certain improvements in construction and combinations of parts, all as will be hereinafter fully described and the novel features pointed out particularly in the claims at the end of this specification.

In the drawings:—Figure 1 is a side elevation of a vehicle constructed in accordance with my invention; Fig. 2, a longitudinal sectional view of the same; Fig. 3, a horizontal sectional view on the line $x-x$ of Fig. 2, looking down; Fig. 4, a perspective view of the interior of a carriage looking toward the front; Fig. 5, a sectional view on the line $y-y$ of Fig. 2; Fig. 6, a sectional view through the roller.

Similar reference-numerals in the several figures indicate similar parts.

The body 1 of the vehicle may be constructed as shown, or in any suitable manner, and provided at the sides near the front with door frames or casings 2, preferably curved at the bottom and rear, as shown, and with a forward standard 3 constituting the forward corner post of the vehicle, and slightly elastic, the elasticity afforded by the natural spring of a hard wood, such as oak or ash being sufficient for the purpose for holding the door tight, as will be further on described. The doors, which are hinged to the forward post 3 of the casing, are composed of two parts, 4 and 5 pivoted together by hinges 6 arranged with their pivot pins on the outside, so as to swing inward, as shown in Fig. 3, and the outer free end of the door-section 5 is guided in the door frame so as to move parallel therewith and cause the door to assume when open and

closed the positions shown in full and dotted lines in Fig. 3, and to insure the guiding of the door at all positions of its movement. To insure this operation in the present construction I provide at the upper portion of the door casing a ledge or shoulder 7 and inside of this arrange a rail 8 and secure to the upper end of the door section 5 a bracket 9 having a supporting projection 10 at its upper end, preferably in the form of a disk or roller and arrange below this a roller 11, preferably of rubber, or similar material, arranged between the ledge 7 and the rail 8, as shown particularly in Fig. 5. This roller operating between the door ledge and the rail effectually guides the door in its movements and the projection 10 at the top prevents it being pressed downward too far in operation, or sagging, due to its own weight, and by having the roller 11 of rubber all rattling is prevented.

Arranged upon the inner side of the section 5 of the door is a suitable operating handle 12 and located upon the rear upright of the door frame are slightly converging arms 13, shown particularly in Fig. 5, adapted to engage the end of the section 5 of the door when closed and guide its end positively into the recess or rabbet formed in the rear upright of the door-casing.

In order that the doors may be held positively open, I provide in the outer side of the upper portion of the door frame or casing, and in the present instance preferably in the supporting ledge 7, a recess 14, shown to the right in Fig. 3, into which, when the door is open at the position shown to the left in said figure, the elastic roller 11 will project and hold the door sections folded, as shown, against the front of the vehicle body, so as not to be liable to spring loose by the jarring of the vehicle; but this fastening may be readily detached by grasping the handle 12 and pulling the outer free end of the door section 5 toward the center, as will be readily understood. Any engaging projection and recess corresponding in relative position would accomplish the same result, and I therefore do not desire to be confined to the construction shown, though I prefer it.

It will be noted that when the doors are closed, the outer ends of the two sections bear-

ing against the sides of the frame will form in effect a toggle and that, as shown in Fig. 1, the forward edges of the door section 4 are cut away slightly near their upper and lower ends in order that the front elastic standard 3 of the frame may be bent very slightly when the toggle is straightened, so as to hold the door tightly in position in the frame, and it is obvious that instead of cutting away the door, the edges of the standard could be cut away correspondingly, as will be readily understood, the object being to allow the elastic standard to give sufficiently to hold the door in place when the sections are in line. A folding handle 15 is arranged substantially in line with the hinges connecting the door section, as shown in Figs. 1 and 5, for opening and closing the doors from the outside.

While I have shown the guiding projection formed by the roller 11 in the present instance operating between the ledge 7 and the rail 8 at the top of the door frame and in practice prefer this construction as it enables me to have the bottom of said door and frame curved as shown, and also prevents interference with the proper operation of the door by snow and ice, it is obvious that said guiding projection could be arranged at the bottom of the door casing or frame, if desired, or in some instances at both the bottom and top, but the present construction is found in practice to be most advantageous.

The front of the vehicle may be constructed with a dash 16 and a swinging window or glass front 17, as shown in Fig. 2, a sufficient space being permitted at 18 between these parts for the passage of the reins, but inasmuch as the principal portion of my invention relates to the construction and operation of the door, this may be modified to suit the constructor; also it is obvious that, if desired, to permit more room in the body of the vehicle at the front, the hinges of the door could be placed on the outside of the front standard of the door casing allowing the doors to swing outward at the sides instead of within the body, as shown, the free edge of the rear door section being guided substantially as indicated.

I claim as my invention—

1. In a vehicle, the combination with the door-frame, of a door constructed in two sections hinged together, one of said sections being hinged to the frame and the other having a guide at one end cooperating with the frame for guiding its movements, substantially as described.

2. In a vehicle, the combination with the

door-frame, of a door constructed in two sections hinged together, one of said sections being hinged to the frame and the other having a supporting projection, and a support on the frame with which said projection cooperates, substantially as described.

3. In a vehicle, the combination with the door frame, of a door constructed in two sections hinged together, one of said sections being hinged to the frame and the other provided with a roller and a supporting projection, and a guide rail with which the projection and roller cooperate, substantially as described.

4. In a vehicle, the combination with the door frame, of a door constructed in two sections hinged together, one of said sections being hinged to the frame and the other provided with a guiding projection, and a recess in the frame near the hinge with which said projection cooperates to hold the door open, substantially as described.

5. In a vehicle, the combination with the door frame, of a door constructed in two sections hinged together, one of said sections being hinged to the frame and the other provided with an elastic abutment, and a recess in the door frame near the hinge with which said abutment cooperates to hold the door open, substantially as described.

6. In a vehicle, the combination with the door frame having one more or less elastic side, of a door constructed in two sections hinged together, one of said sections hinged to the door frame and the other guided at one end on said frame, substantially as described.

7. In a vehicle, the combination with the door frame and the supporting ledge and rail, of a door constructed in two sections hinged together, one of said sections hinged to the frame and the other provided with an elastic roller and supporting projection cooperating with the rail and ledge, substantially as described.

8. In a vehicle, the combination with the door frame, of a door constructed in two sections hinged together and one of them hinged to the frame forming a toggle, and an elastic abutment for one of the door sections, whereby the door may be held closed when the toggle formed by the two sections is straightened, substantially as described.

CHARLES W. WILBOR.

Witnesses:

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GRACE A. RODA.