

No. 815,461.

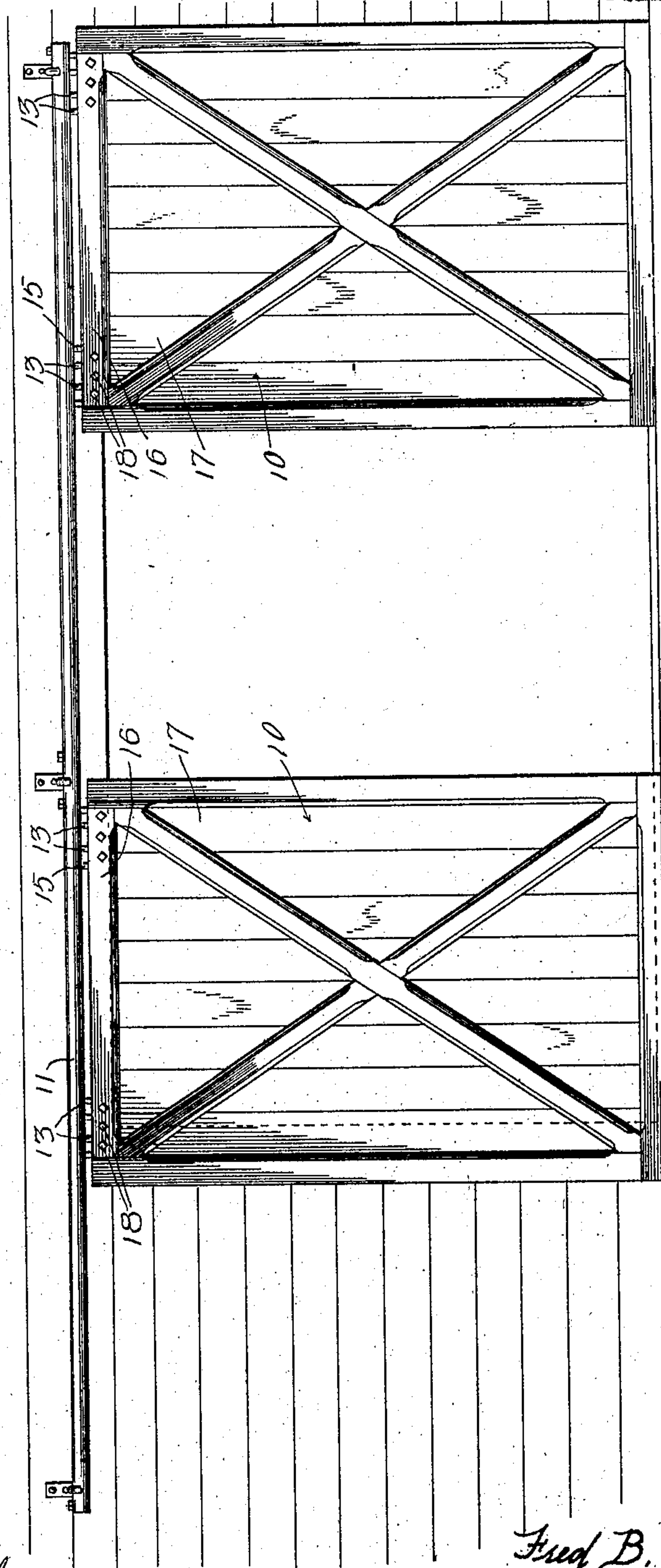
PATENTED MAR. 20, 1906.

F. B. McELVAIN.
CAR DOOR HANGER.

APPLICATION FILED AUG. 26, 1904.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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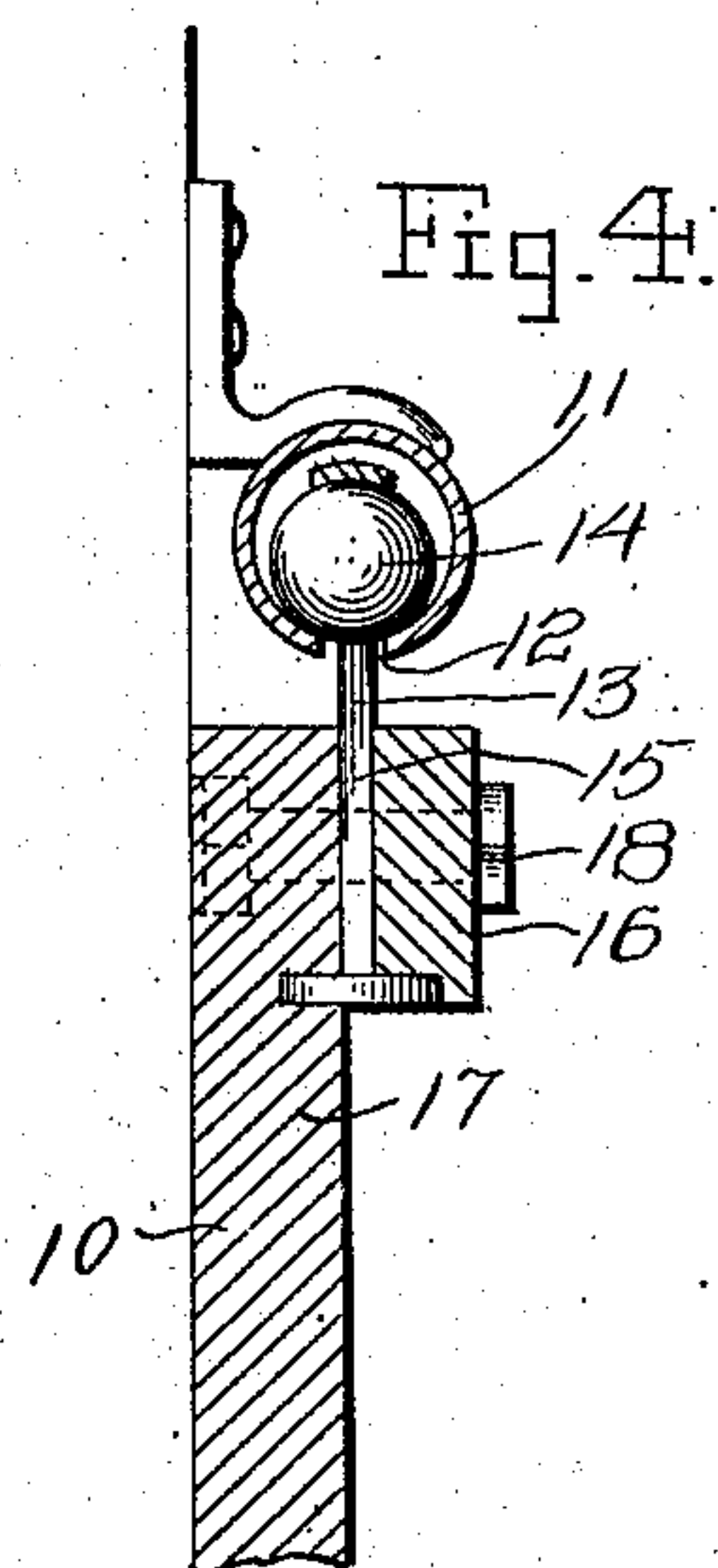
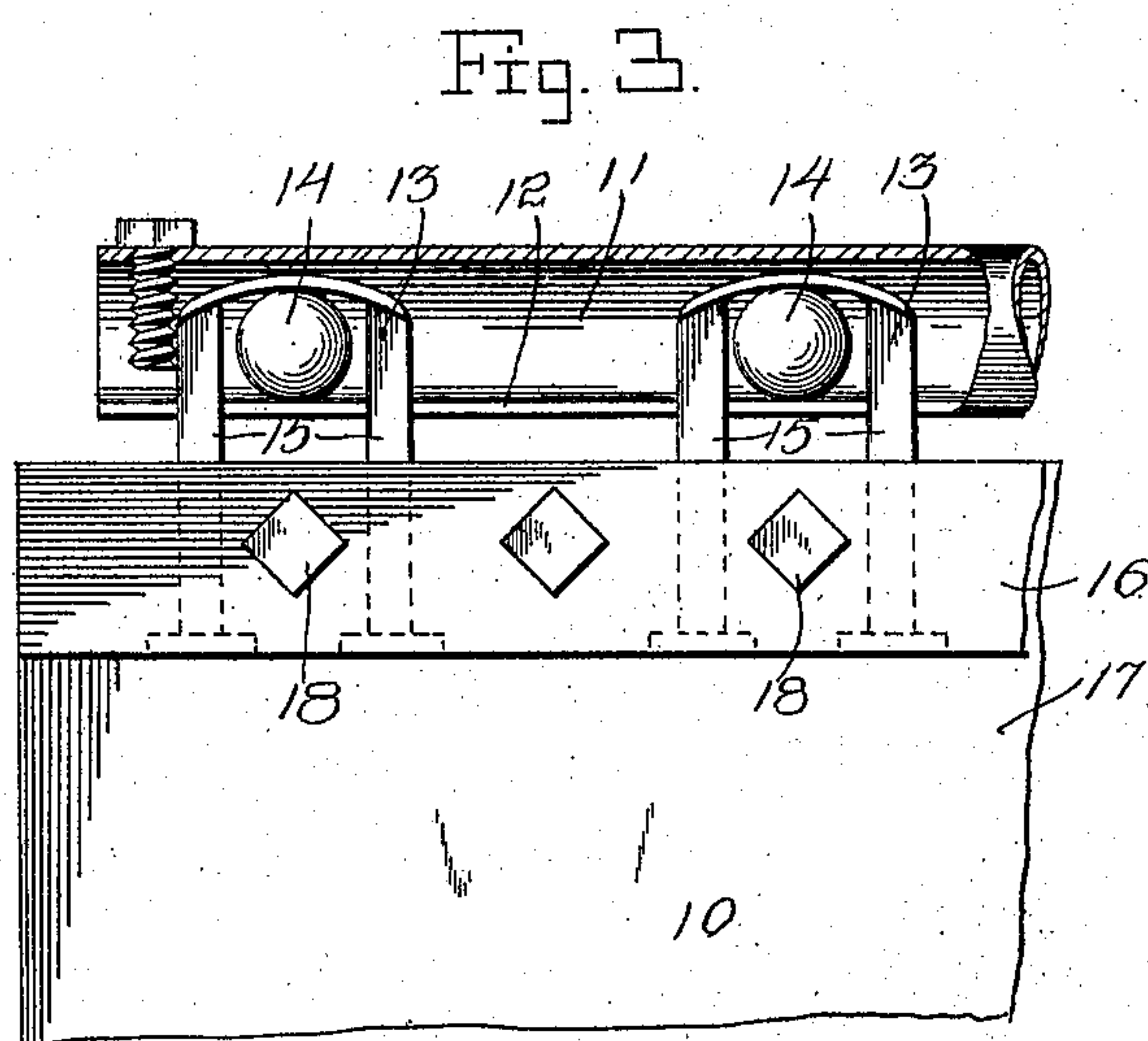
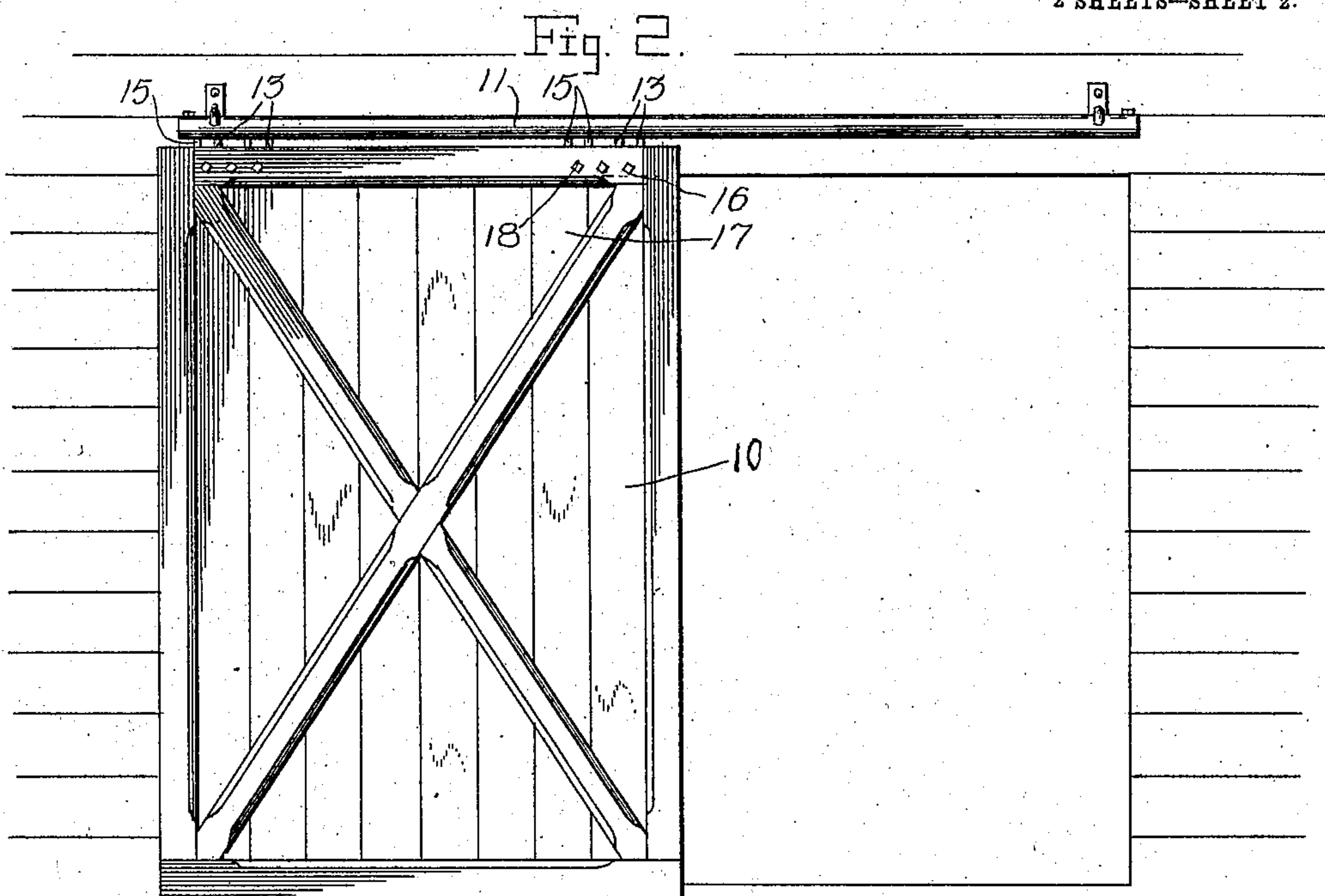
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

FRED B. McELVAIN, OF ALLENDALE, MISSOURI.

CAR-DOOR HANGER.

No. 815,461.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed August 26, 1904. Serial No. 222,253.

To all whom it may concern:

Be it known that I, FRED B. McELVAIN, a citizen of the United States, residing at Allendale, in the county of Worth, State of Missouri, have invented certain new and useful Improvements in Car-Door Hangers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to means for hanging or supporting car-doors and the like vertically, so that they can readily be slid or moved horizontally to open or close them.

The invention contemplates the use of ball-bearings or the ball-bearing principle, and this is done in such a way as to make a strong and durable structure in order that it may be relied upon to withstand all shocks, jolts, and jars to which the door is liable to be subjected; also, so as to make the device simple in organization that it may not easily get out of order or if this should possibly occur that it may be easily fixed in proper order or repaired; finally, so that it may be easy of operation and not likely to "stick" at any point in opening and closing it.

The invention will fully appear from the description hereinafter given, taken in connection with the annexed drawings and symbols of reference marked thereon, the same symbols designating the same parts or features, as the case may be, wherever they occur.

Of the said drawings, Figure 1 is a front view of a pair of barn or carriage-house doors hung in accordance with this invention. Fig. 2 shows the invention as applied to a single door. Fig. 3 is a front view of a portion of the hanger, door, and pipe, portions being shown as broken away to better illustrate the construction. Fig. 4 is a vertical sectional view through a portion of the door, stirrup, and pipe, showing a ball in position. The two latter views are drawn to an enlarged scale.

In the drawings, 10 designates doors of suitable size and construction, of which there may be one, as to a small carriage or other house, as shown in Fig. 2, or two meeting in the center and opening by sliding apart, as shown in Fig. 1. In either case there will be a support for the doors arranged above the same and extending not only from side to

side of the doors, but into the structure or building, so that the doors cannot only be run back from their place, but be supported in position after they are opened.

The hanger-support is shown as consisting of a pipe 11, of iron or steel, with a slot 12, formed in its lower or under side throughout its operative length. The hanger consists of stirrups or staples 13, standing lengthwise of the doors, the shanks of the staples being firmly secured in the upper edge of the door and their bows on their lower or under side being dish-shaped in order that each staple shall maintain in proper position a steel or other ball 14, placed therein and allowed to run along within the pipe 11, following the slot 12, through which the shanks 15 of the staples will pass, as shown in the drawings.

In practice it is proposed to provide each door 10 with a pair of staples 11 and balls 14, one pair at each side whether the doors be double or single, since by using pairs of staples or stirrups there is no liability of binding and the doors and hangers are more durable than they would otherwise be.

Any means that may be found efficient for supporting the pipe in position will answer the needs of my invention. I prefer in fastening the shanks 15 of the staples or stirrups 13 in position to form the said shanks flat, or substantially so, and insert them between two pieces 16 and 17, of timber, composing the upper part of the door and secure them in place by transverse bolts 18, passing through the timbers or boards and shanks, as shown in the drawings.

Where the doors are made in pairs, the pipe 11 may be made in sections divided at the middle. It may, however, be made continuous, any suitable stop at the center serving to prevent the doors from being moved too far toward each other or too far in closing.

I claim—

1. A door-hanger, comprising a tubing supported above the doors and provided with a slot in its under surface, staples secured to the top of each door and arranged for projection through the slots of the tubing, the bows and shanks of the staples being of flat material with the sides of the bows turned at angles to the plane of the flat sides of the shanks; and balls arranged between the flat sides of the bows and the tubing.

2. A door-hanger, comprising a tubing supported above the door and provided with

a slot; a pair of staples secured to the door and arranged to project through the slot into the tubing, the bows of the staples having their under surface concaved; and a ball arranged between the bow of each staple and the tubing, whereby the door may be slidably supported within said tube.

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

FRED B. McELVAIN.

Witnesses:

SAMPSON CASTER,
J. S. ROTEN.