

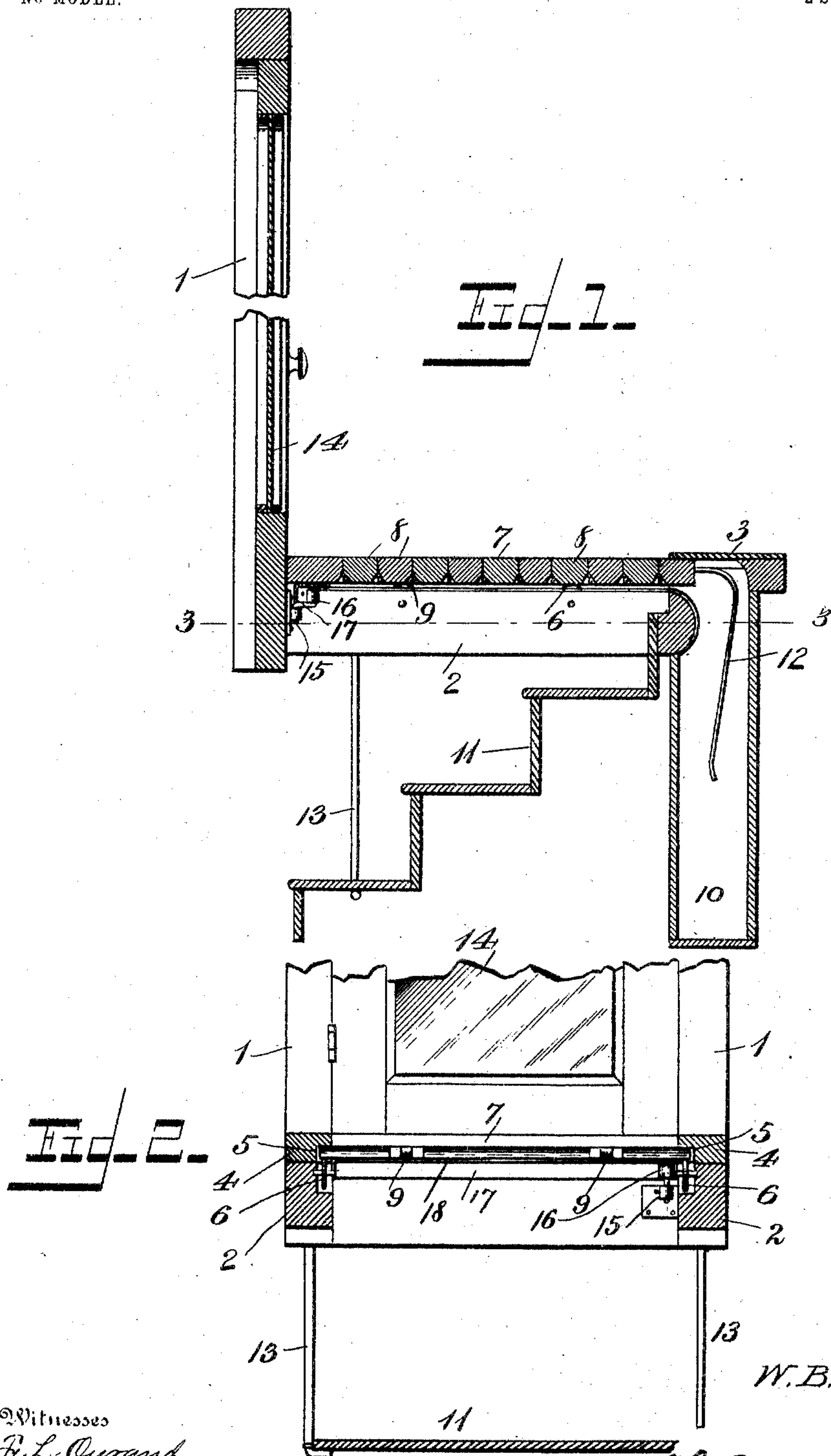
No. 777,283.

PATENTED DEC. 13, 1904.

W. B. FOSTER.  
CAR VESTIBULE AND STEPS.  
APPLICATION FILED AUG. 18, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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Witnesses  
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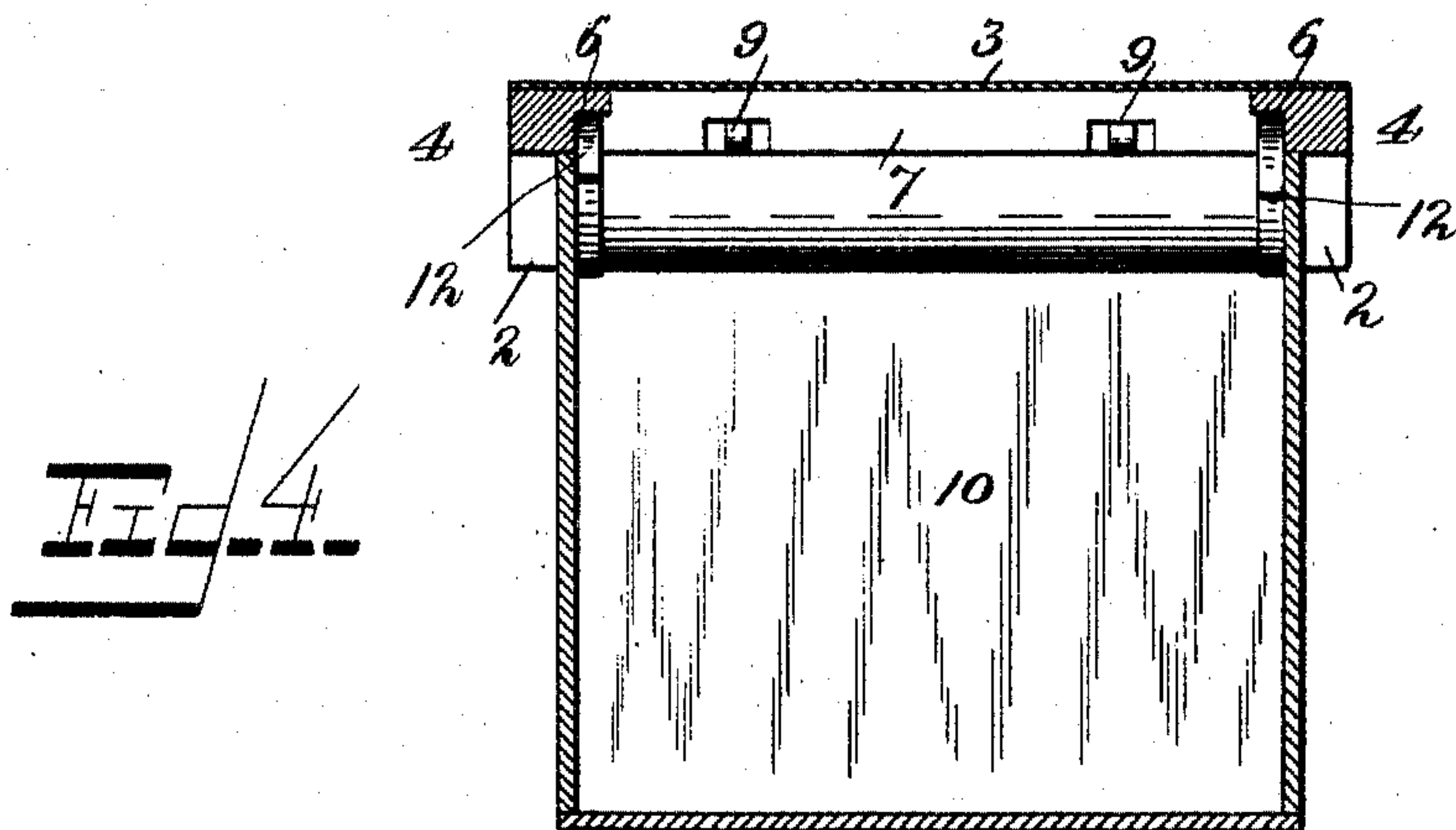
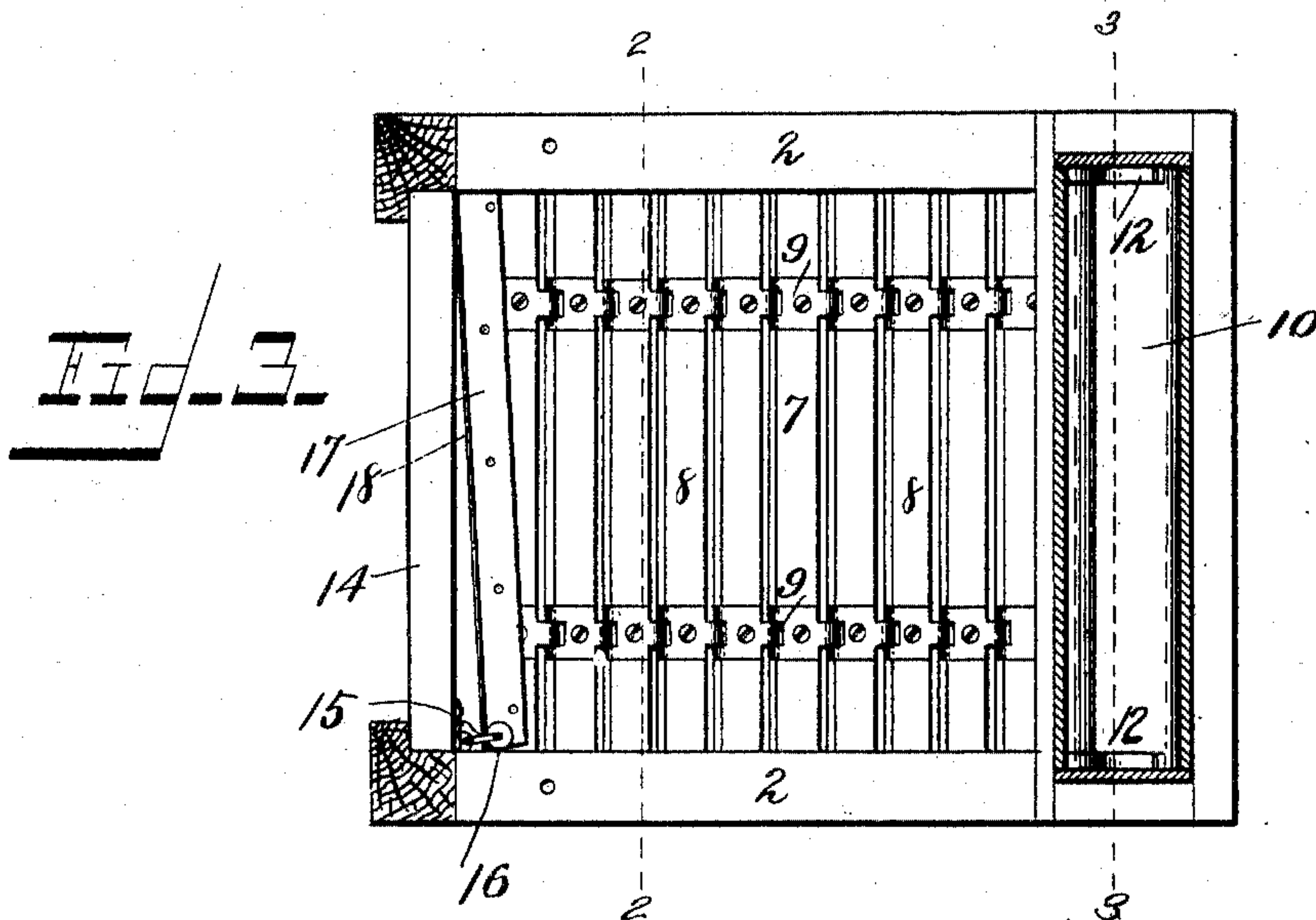
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

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## CAR VESTIBULE AND STEP.

SPECIFICATION forming part of Letters Patent No. 777,283, dated December 13, 1904.

Application filed August 18, 1904. Serial No. 221,284. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. FOSTER, a citizen of the United States, residing at Newark, in the county of Essex and State of Jersey, have invented certain new and useful Improvements in Car Vestibules and Steps; and I do 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 relates to certain new and useful improvements in the construction of car-vestibules, and particularly to steps therefor and means for uncovering and covering the steps when the door of the vestibule is opened and closed.

The object of the invention is to provide a construction in which a trap-door is arranged to cover an opening in the platform above the steps and forms a part of the platform when closed, which is automatically operated by the movement of the door, and which closes into a suitable receptacle out of the way below the platform.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a central section in a direction transversely of the car through one end or half of a vestibule-platform equipped with my invention. Fig. 2 is a section on the line 2 2 of Fig. 3 looking inwardly or in the direction of the arrow. Fig. 3 is a bottom plan view taken on the line 3 3, Fig. 1, the steps being omitted and the box or casing appearing in horizontal section; and Fig. 4 is a section through the box or casing on line 4 4 of Fig. 3.

Referring now more particularly to the drawings, the numeral 1 represents the door-frame of a vestibule, and 2 one of the end or side portions of the platform thereof. As shown, the said portion 2 of the platform is provided with a solid flooring 3 at a point where it

leading into the vestibule, and from said point outward the said platform is open and provided at its sides with guide-bars 4, provided on their inner sides with longitudinal recesses 5, forming guideways and having suitably mounted therein frictional rollers 6. A trap-door or sliding platform-section 7 is adapted to close the open space of the platform and is composed of a series or parallel slats 8, jointed together by interconnecting links 9. The ends of these slats fit and slide in the guideways 5 and when said trap or platform section is projected close the open space of the platform and form an extension of the platform leading from the portion 3 to the door-frame 1. Beneath the portion 3 of the platform is a box or casing 10, into which the platform-section or trap-door 7, which may be termed a "roller-section," is adapted to move when the same is slid inwardly to open the said space in the platform and to give access to the steps 11, arranged below the upper portion of the platform and in advance of the said box or casing 10. Suitable pivoted or flexible guide-strips 12 are secured to the under side of the platform-section 2 and project downwardly into the box or casing 10 to guide the roller-section 7 thereinto when said roller-section is moved backwardly or opened to admit access to the said steps 11. The steps 11 are fixed to and hang at their inner ends from the platform 2 and are supported at their outer ends by hanger-rods 13, projecting downwardly from the platform and connected at their lower ends to the lower step-section.

The vestibule-door 14 is mounted to swing in the usual manner upon the frame 1 and projects downwardly below the roller-platform section 7 and is provided with a pivoted crank member 15, carrying a friction-roller 16, which is adapted to engage and traverse a vertical flange 17 of an angle-metal track-rail 18, secured by its horizontal flange to the under side of the outer slat of the rail-section 7, the said vertical flange 17 being inclined or diagonally disposed to provide for the proper movement of the friction-roller and allow for the arcuate swing of the door 14. By this



construction it will be seen that when the door is swung inward against the platform-section 7 the latter will be slid inward and caused to fold down into the box or casing 10, while  
5 when the door is swung outward or closed the platform-section 7 will be drawn outward with it by means of the roller 16 bearing upon the vertical flange 17 and caused to close the opening in the platform to form a walk over  
10 the steps 11.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be readily understood, and  
15 it will be seen that it provides a construction which admits of access being obtained to the steps only when the door is swung open, thus obviating liability of accidents, and which gives increased width to the platform of the  
20 vestibule by providing a closed portion over the space normally left open above the steps.

Many other advantages resulting from my improvements will be apparent to those versed in the art.

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

30 Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

1. A car-platform having an opening therein, a box or casing at one end of said opening, a vestibule-door at the opposite end thereof, 35 a sliding slatted trap-door or platform-section adapted to move into and out of said box or casing and thereby open or close said opening in the platform, and a connection between said trap and door whereby when the door is  
40 opened or closed said trap will be actuated, substantially as described.

2. A car-platform having an opening therein, the walls of which are provided with guideways, a box or casing, guide-strips within 45 said box or casing, steps below the opening in the platform, a sliding roller trap-door or platform-section consisting of slats slidably connecting said guideways and linked together, said trap being adapted to move into 50 and out of said box or casing, and a connection between the trap and door whereby when the latter is moved said trap will be actuated, substantially as described.

In testimony whereof I have hereunto set my 55 hand in presence of two subscribing witnesses.

WILLIAM B. FOSTER.

Witnesses:

GEORGE NEWTON,

MAX MÜLLER.