

(No Model.)

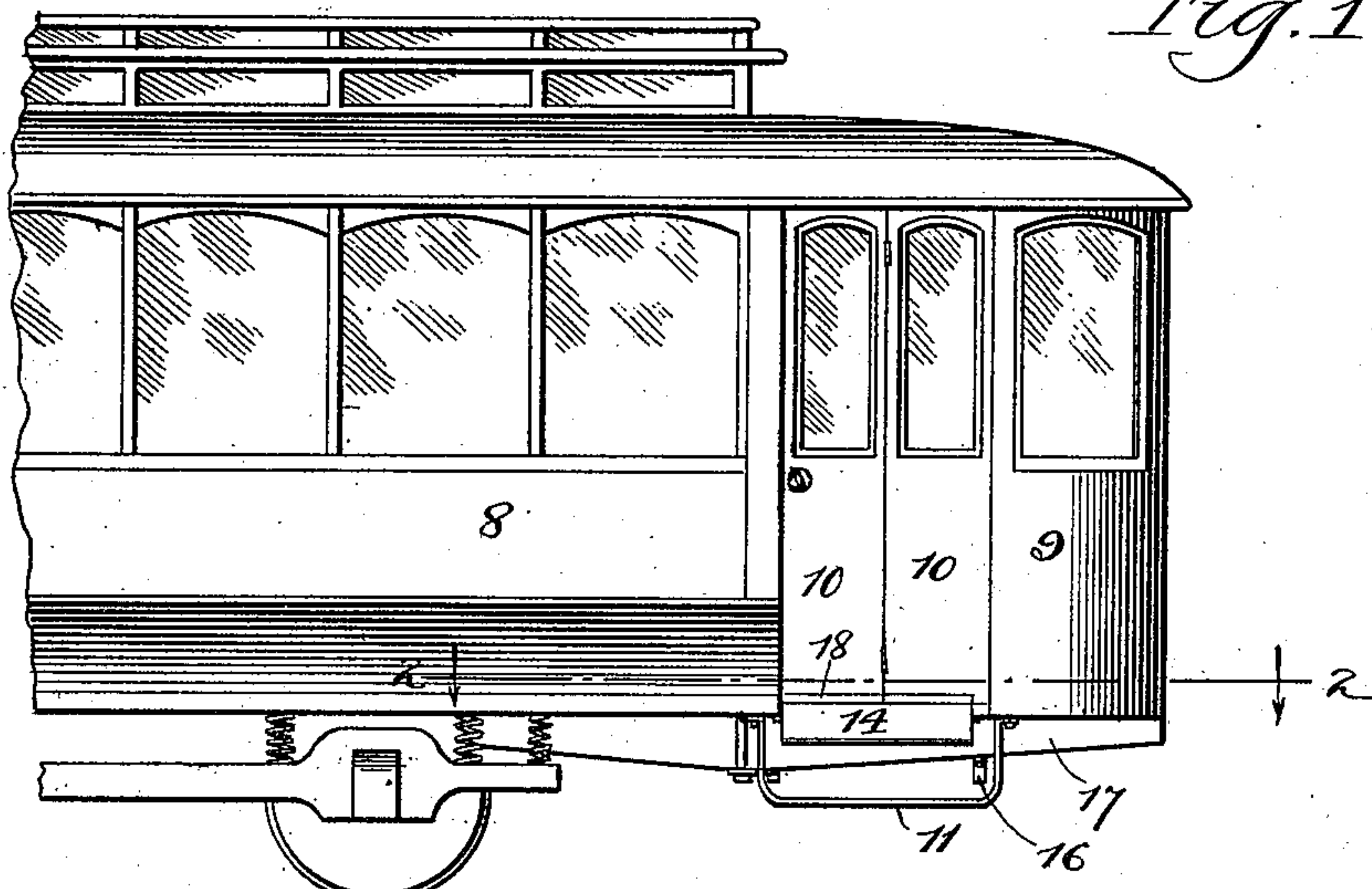
2 Sheets—Sheet 1.

F. THOMPSON.  
CAR STEP.

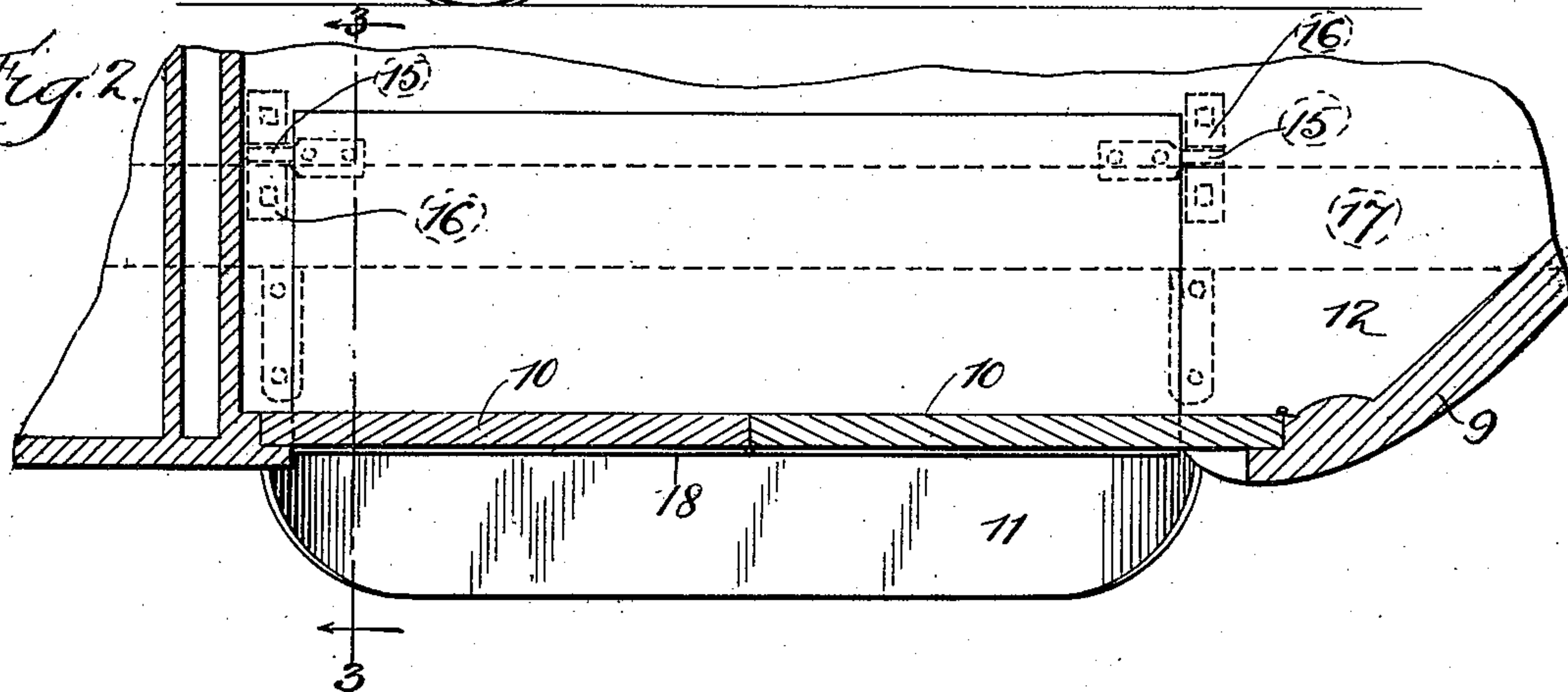
No. 574,461.

Patented Jan. 5, 1897.

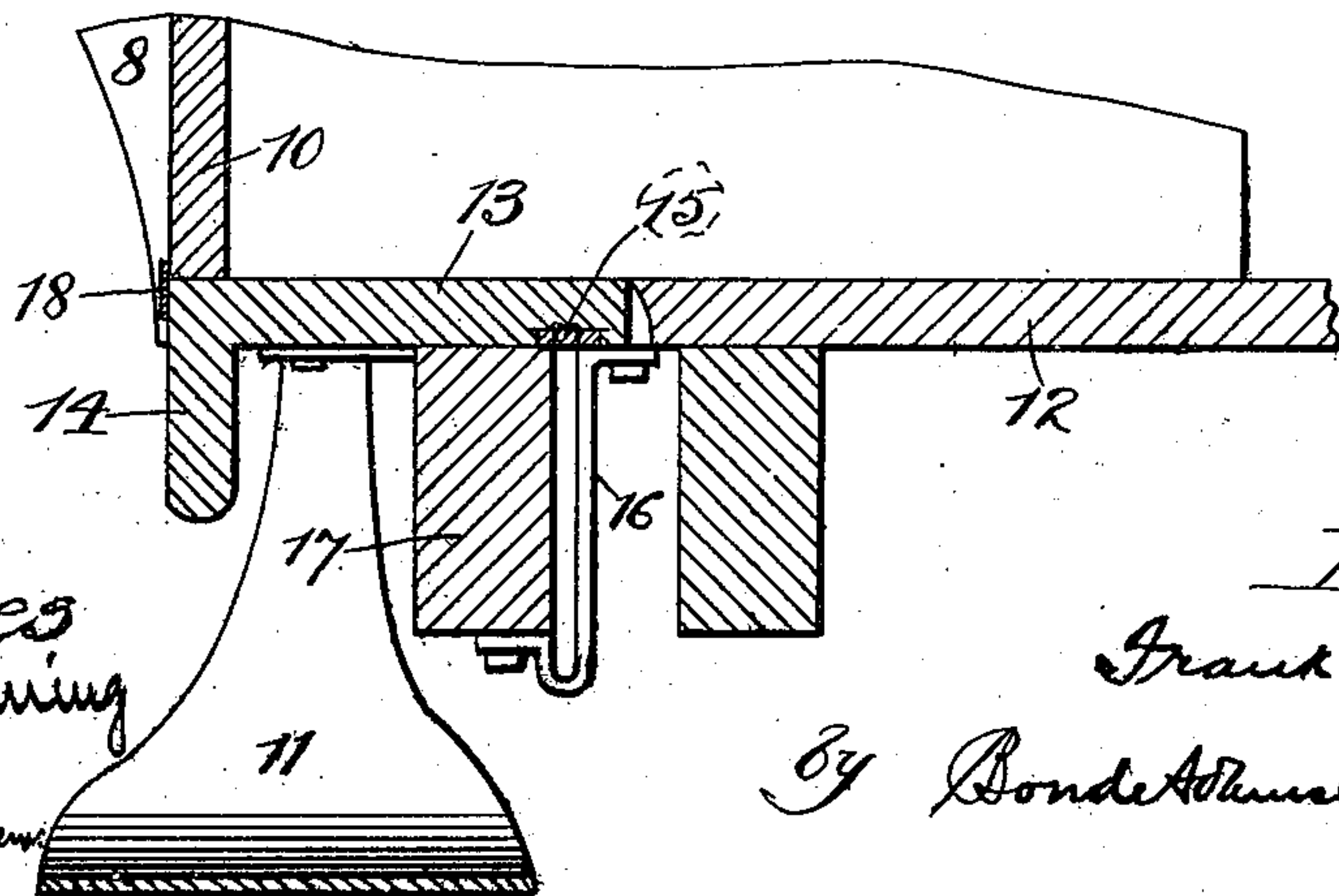
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
Wm. J. Fleming  
J. M. Rhine

Inventor  
Frank Thompson,  
By Bonde A. Bickel & Jackson  
Attys.

(No Model.)

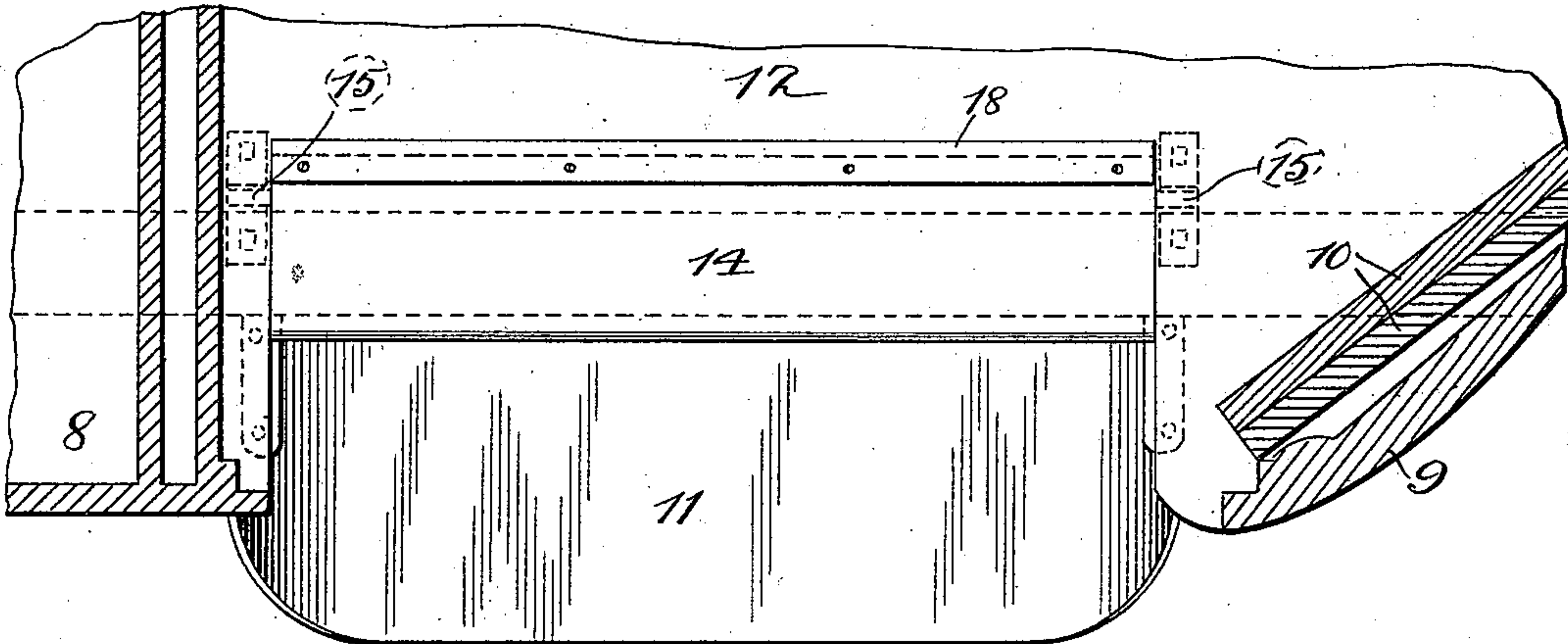
2 Sheets—Sheet 2.

F. THOMPSON.  
CAR STEP.

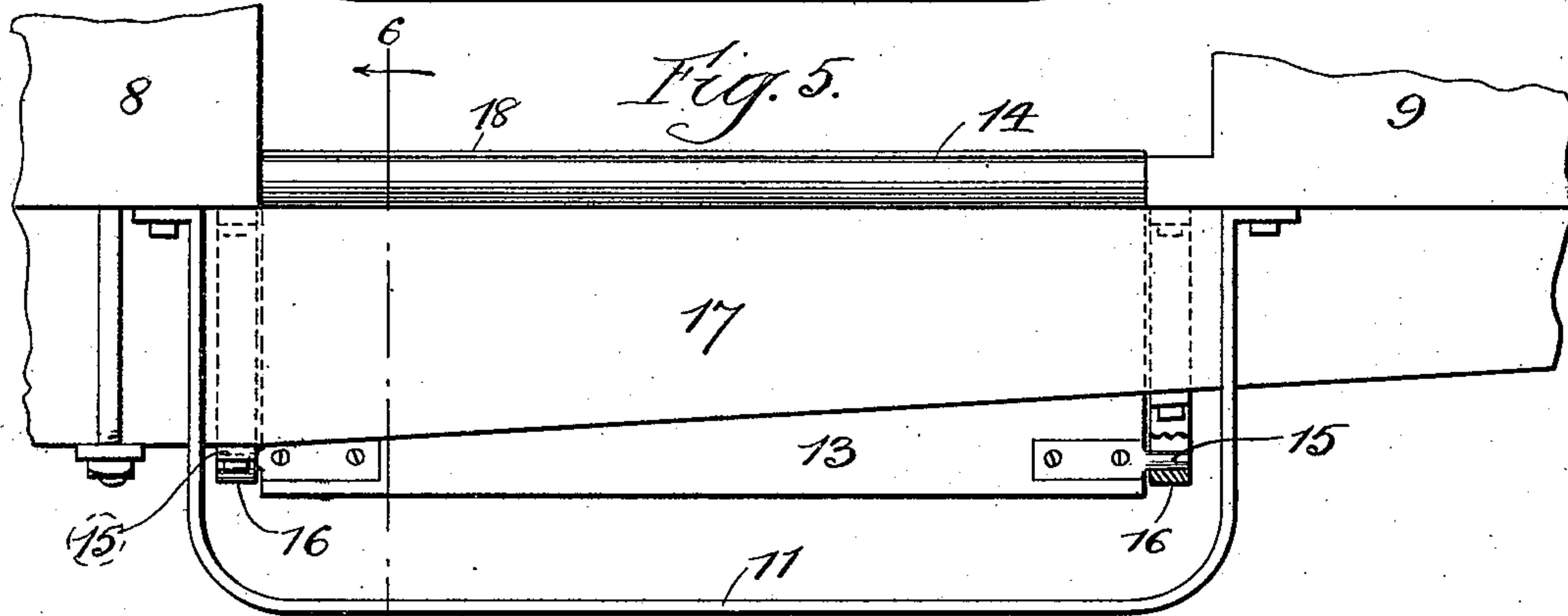
No. 574,461.

Patented Jan. 5, 1897.

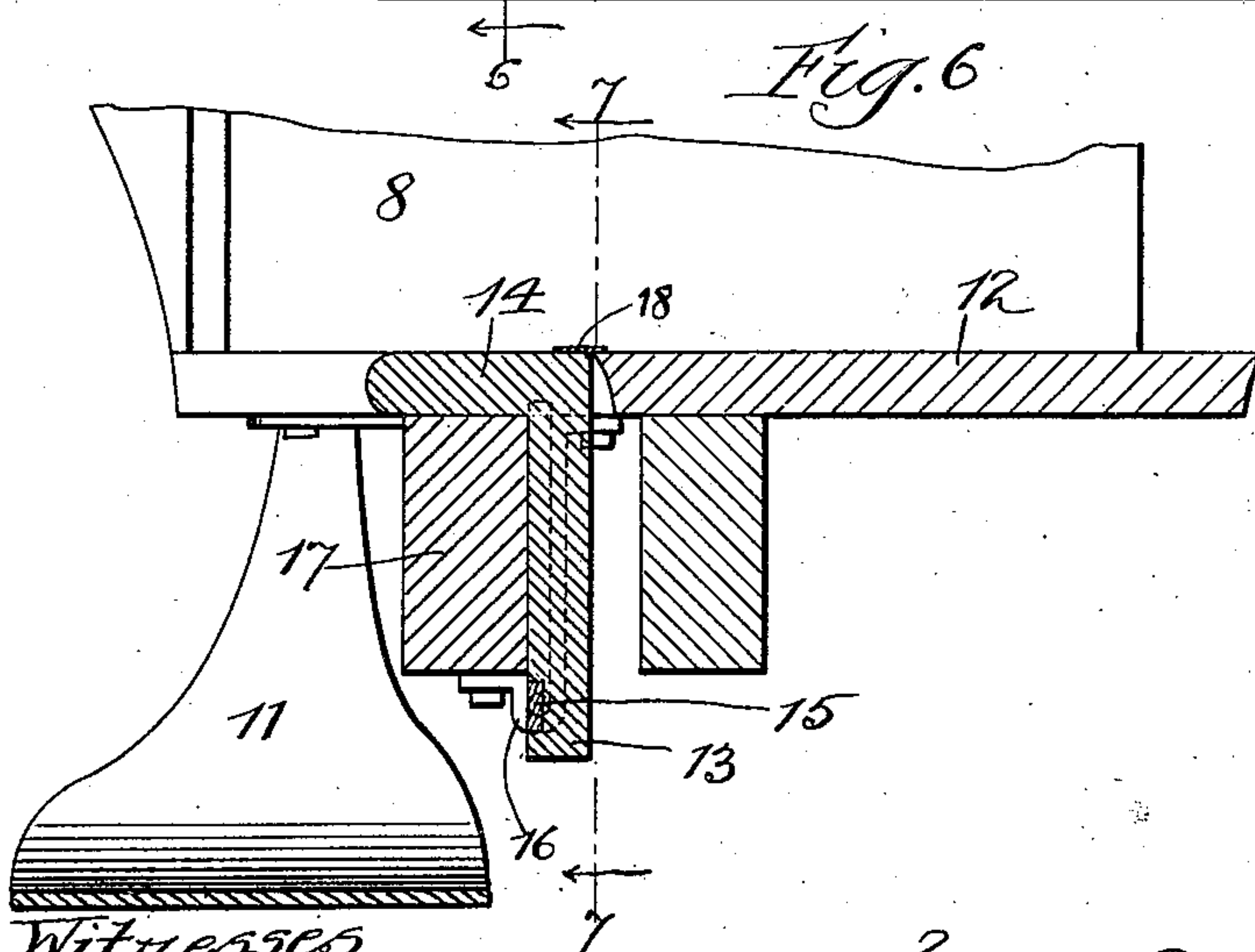
*Fig. 4.*



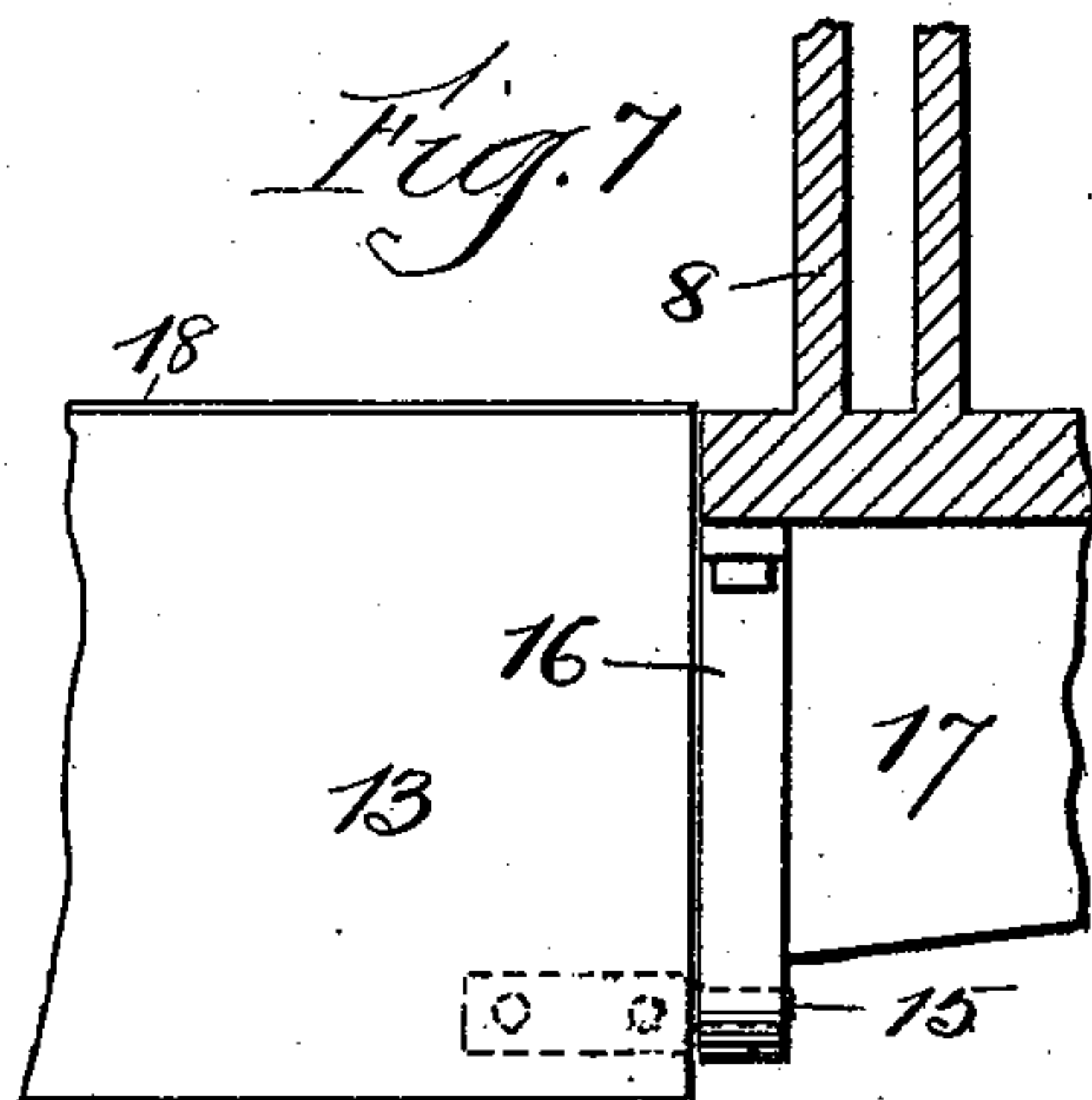
*Fig. 5.*



*Fig. 6.*



*Fig. 7.*



Witnesses  
Wm. J. Hanning  
S. M. Rheem.

By

Inventor  
Frank Thompson,  
Bond Attorneys Jackson.  
Attys.



# UNITED STATES PATENT OFFICE.

FRANK THOMPSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WELLS & FRENCH COMPANY, OF SAME PLACE.

## CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 574,461, dated January 5, 1897.

Application filed January 30, 1896. Serial No. 577,368. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK THOMPSON, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Steps, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a partial side view of a car, showing my improvement. Fig. 2 is a partial horizontal section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a partial horizontal section showing the car-step exposed. Fig. 5 is a side view of the parts shown in Fig. 4. Fig. 6 is a section on line 6 6 of Fig. 5. Fig. 7 is a section on line 7 7 of Fig. 6.

My invention relates to cars commonly used for street-service. As is well known, cars of this description are generally "double-enders;" that is, are provided with a platform at each end and steps leading to such platform, so that the passengers may enter and alight from either end of the car. In street-car service on many lines it is regarded as desirable that the motorman or driver should stand upon the forward platform, the rear platform only being used for the entrance and exit of passengers, so that the motorman or driver will not be disturbed by the passengers and therefore can devote his entire time and attention to the business in which he is engaged. In such instances it is also desirable that means be provided for extending the working space of the motorman or driver and also for barring or closing up the step, so that passengers will not attempt to use the front platform. At the same time it is necessary that any arrangement which may be used for such purpose should be such as to permit of the ready rearrangement of the platform, so that the steps may be used by the passengers, as except where the cars are run on loops it is necessary that the driver should be stationed alternately at the two ends of the car.

To provide a construction whereby the different arrangements of the car-platforms may be readily effected is the object of my present invention. I accomplish this object as

hereinafter specified and as illustrated in the drawings.

That which I regard as new will be set forth in the claims.

In the drawings, 8 indicates the car.

9 indicates a vestibule arranged around one of the platforms, it being understood that the other platform is similarly arranged.

Before proceeding further I may state that while I prefer the use of an inclosed vestibule, as illustrated, it is not essential to my invention, and I do not desire to be limited to its use.

10 indicates the doors of the car arranged over the usual steps 11.

12 indicates the usual platform, which will hereinafter be referred to as the "stationary" platform. The stationary platform 12 is of slightly less width than common, for reasons which will be hereinafter stated.

13 indicates a movable platform which is arranged to form a lateral extension of the stationary platform of sufficient width to extend out to about the side of the car, as indicated in Fig. 3. The movable platform 13 is L-shaped and provided with a broad flange 14 at one end, as shown in Fig. 3. As best shown in Fig. 6, the flange 14 is adapted to form an extension of the platform 12 when such platform is used for the entrance and exit of passengers, the movable platform 13 being used to form a lateral extension of the stationary platform when such platform is appropriated to the use of the motorman or driver.

Near its inner edge the movable platform 13 is provided at its ends with pins 15, which move in vertical guides 16, suitably secured under the platforms of the car, as best shown in Figs. 3 and 6, where the guides are secured to a beam 17, extending longitudinally under the car.

The operation of the device is as follows: When the platform is to be appropriated to the use of the motorman or driver, the movable platform is moved vertically, the pins 15 rising in the guides 16, the upper or flanged end of the movable platform being then drawn forward to the position shown in Fig. 3, when the movable platform 13 will lie in a horizontal position, being supported by the beam



17 and the pins 15 at the upper ends of the guides 16, the movable platform then forming a continuation of the stationary platform. Under these conditions the flange 14 will be in a vertical position and will prevent the use of the step 11. The doors 10 may then be closed over the outer edge of the movable platform 13. The motorman or driver will, by this construction, be provided with a platform extending over the entire vestibule.

When the platform is to be used for the ingress and egress of passengers, the outer end of the movable platform is raised, the doors 10 having first been opened, and its inner end is moved downward, the pins 15 moving down in the guides 16, causing the platform 13 to assume the position shown in Fig. 6, when the flange 14 will form an extension of the platform 12, being supported by the beam 17.

In cases where it is desired to use the steps at only one side of a car at the same time for the ingress and egress of passengers, as is the practice in most double-track street-car lines, in order to prevent the passengers from stepping off in front of cars moving on the other track, the construction above described provides for closing the step not in use and extending the platform over it, thereby avoiding the danger to passengers which results in the construction at present in use, where, when the gate is closed, an opening is left through which passengers are liable to fall.

To provide a stop for the vestibule-door and also a threshold to cover the meeting edges of the flange 14 and the platform, I provide a strip 18, attached to the flange 14, as shown in Figs. 3 and 6, said strip serving as a stop when the flange 14 is in one position and as a threshold when it is in the other position.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a stationary platform, of an angularly-adjustable platform adapted and arranged to be operated to form a lateral platform extension of variable width, substantially as described.

2. The combination with a stationary platform, of a movable platform having a flanged portion and adapted to be angularly adjusted to form a platform extension of variable width, substantially as described.

3. The combination with a stationary platform, of an adjustable platform extension adapted to be suspended substantially vertically from the stationary platform when out of use and to be moved into a horizontal position to form an extension of the stationary platform, substantially as described.

4. The combination with a stationary plat-

form, of an adjustable platform adapted and arranged to be operated to form a platform extension of variable width, the said adjustable platform, when extended, being in substantially the same horizontal plane as the main body of the platform, substantially as described.

5. The combination with a stationary platform, of an extension-platform adapted and arranged to be operated to form an extension of said stationary platform, and means for supporting said extension-platform, when extended, on substantially the same level as the stationary platform, substantially as described.

6. In a car, the combination with a stationary platform and a step, of an extension-platform adjustable to variable widths, and means for supporting said extension-platform in its adjusted positions, said extension-platform being angularly adjustable to expose or cover the car-step and vary the width of the platform, substantially as described.

7. In a car, the combination with a stationary platform, of a movable platform having a flange arranged at an angle thereto, said movable platform being angularly adjustable to form a platform extension of variable width, substantially as described.

8. In a car, the combination with a stationary platform, of a movable platform having a flange arranged at an angle thereto and provided with a plate 18 to serve as a threshold and, also, as a stop for the car-door, said movable platform being angularly adjustable to form a platform extension of variable width, substantially as described.

9. In a car, the combination with a stationary platform, of an angularly-adjustable platform adapted and arranged to form a platform extension of variable width and provided with a plate to serve as a stop for the car-door, substantially as described.

10. In a car, the combination with a stationary platform, of a movable platform having an angular adjustment whereby it is adapted to form a platform extension of variable width, pins 15 carried by said movable platform, and guides 16 to receive said pins, substantially as described.

11. In a car, the combination with a stationary platform, of a movable platform 13 having a flange 14, said movable platform being angularly adjustable, pins carried by said movable platform, and guides 16 adapted to receive said pins, substantially as described.

FRANK THOMPSON.

Witnesses:

JOHN L. JACKSON,  
ALBERT H. ADAMS.