

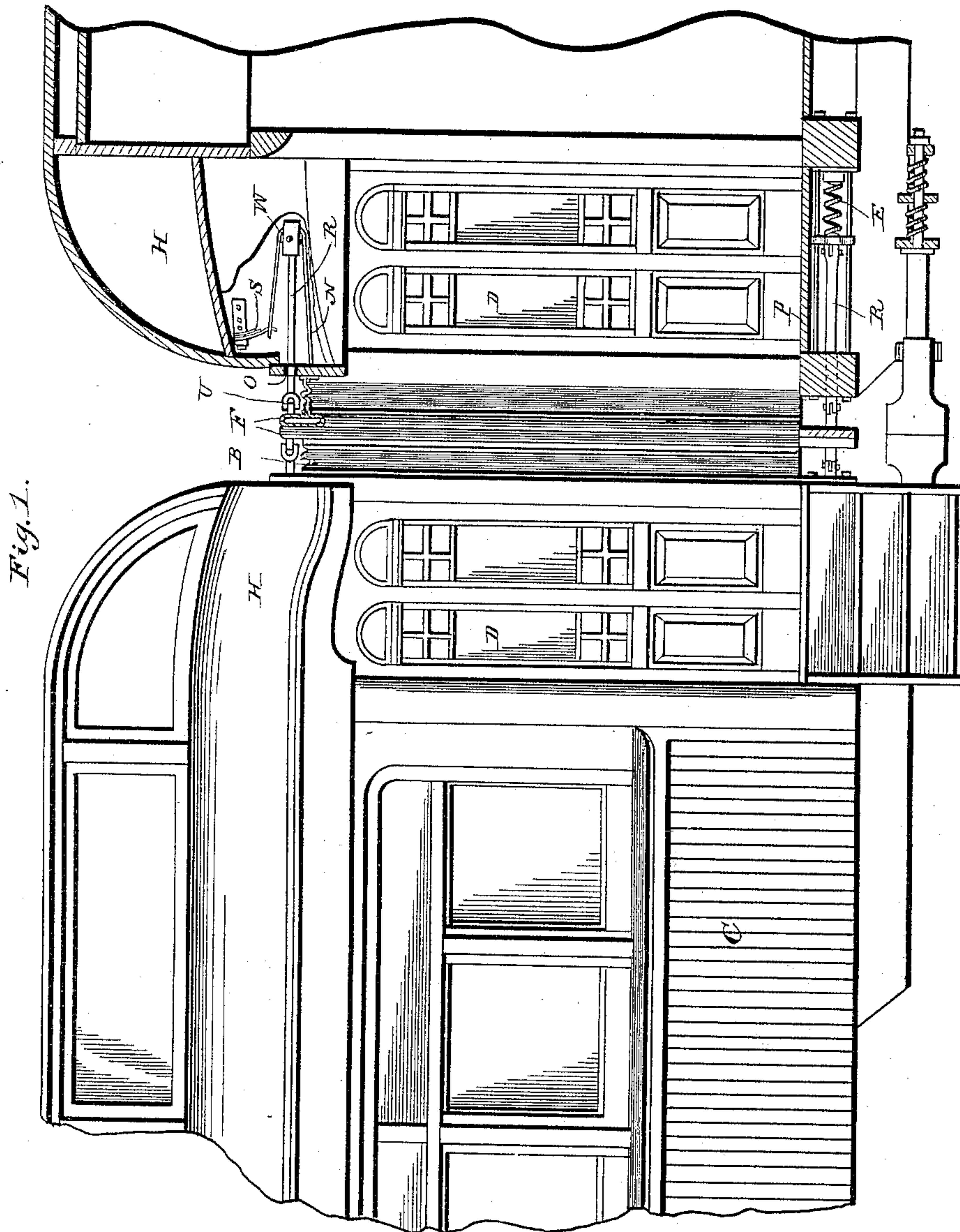
(No Model.)

2 Sheets—Sheet 1.

B. M. HODSON.  
VESTIBULE CAR.

No. 452,787.

Patented May 26, 1891.



Witnesses

*J. M. Fowler Jr.*  
*W. J. Gollamer*

By his Attorneys,

*C. A. Snow & Co.*

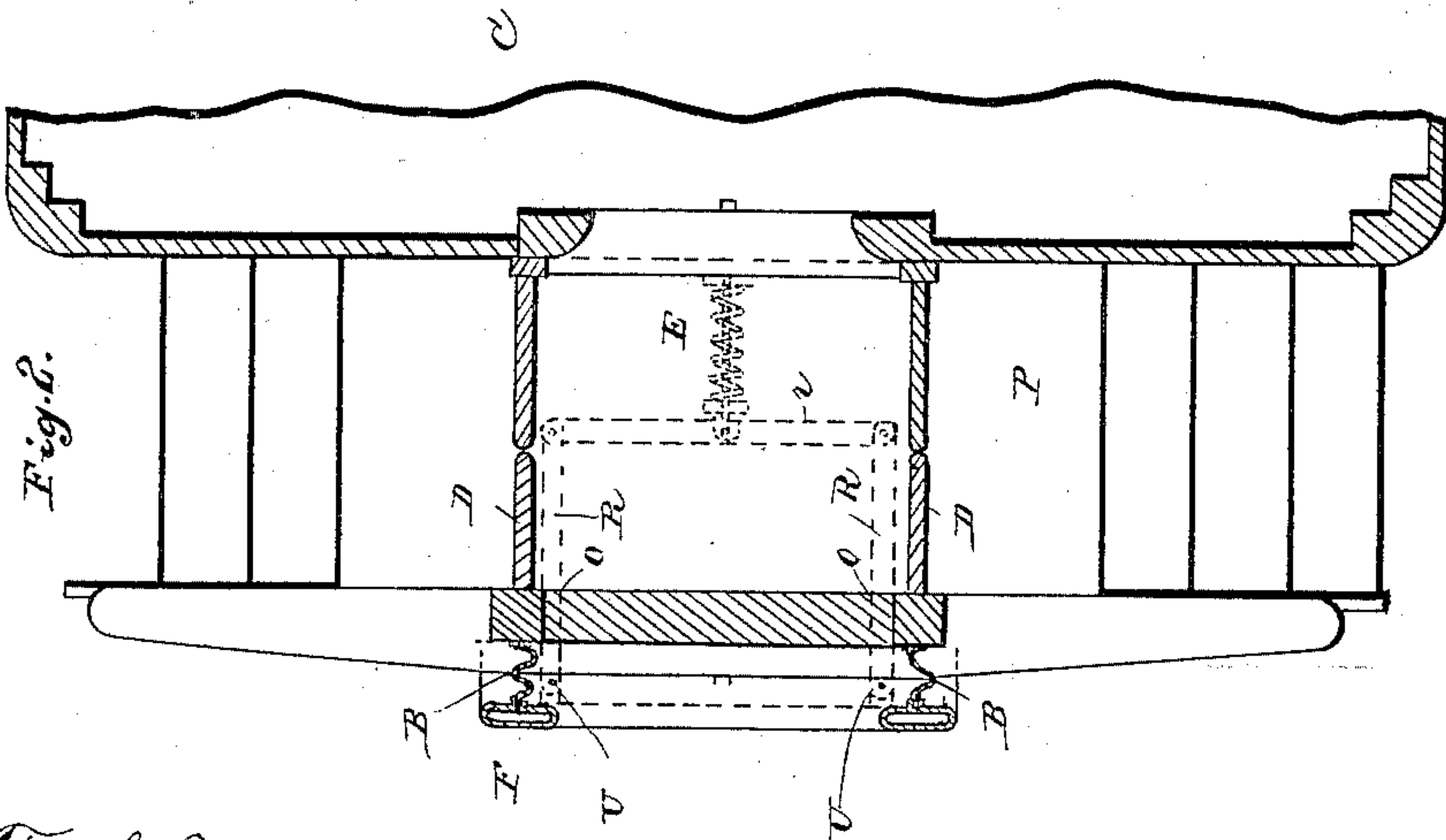
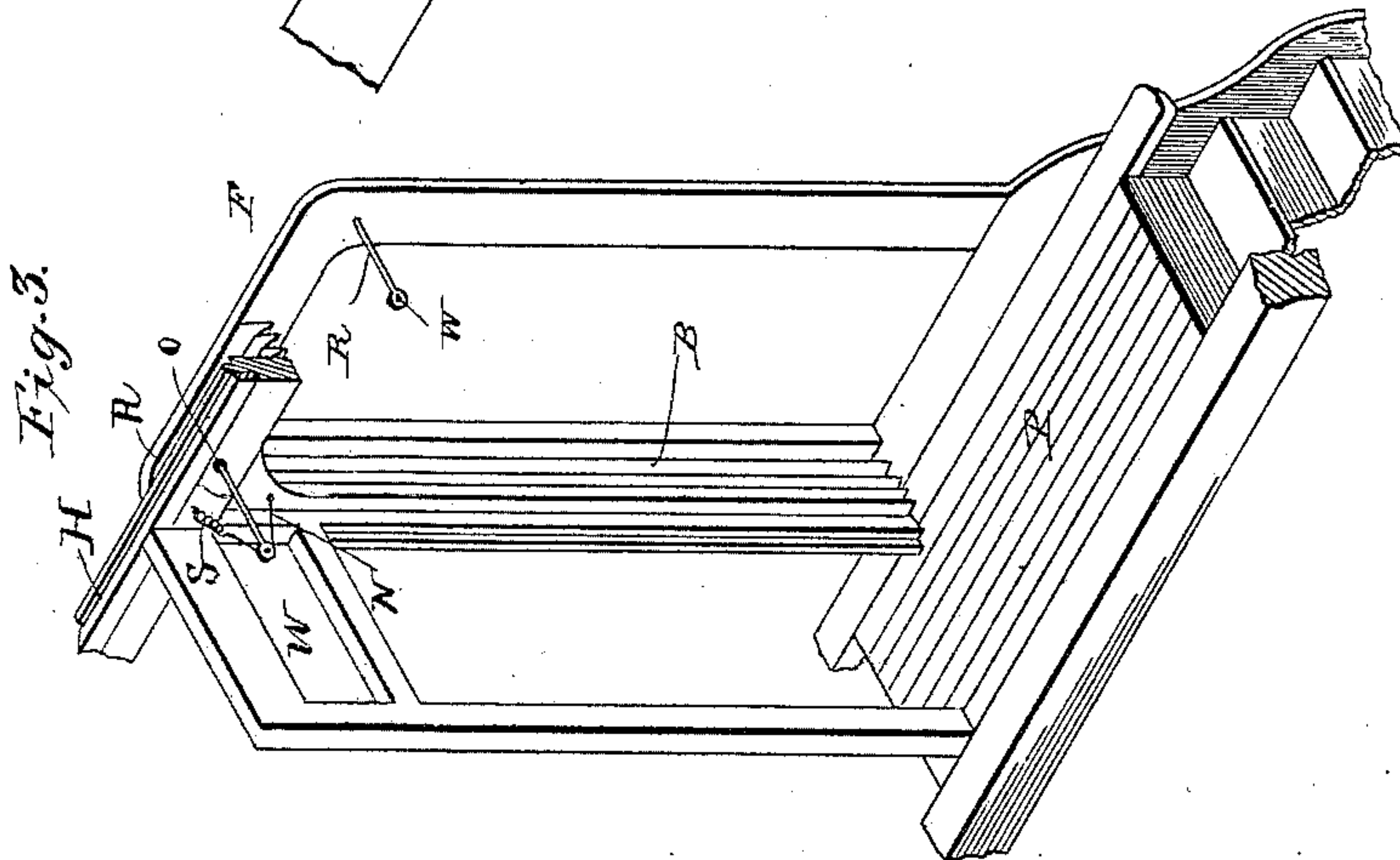
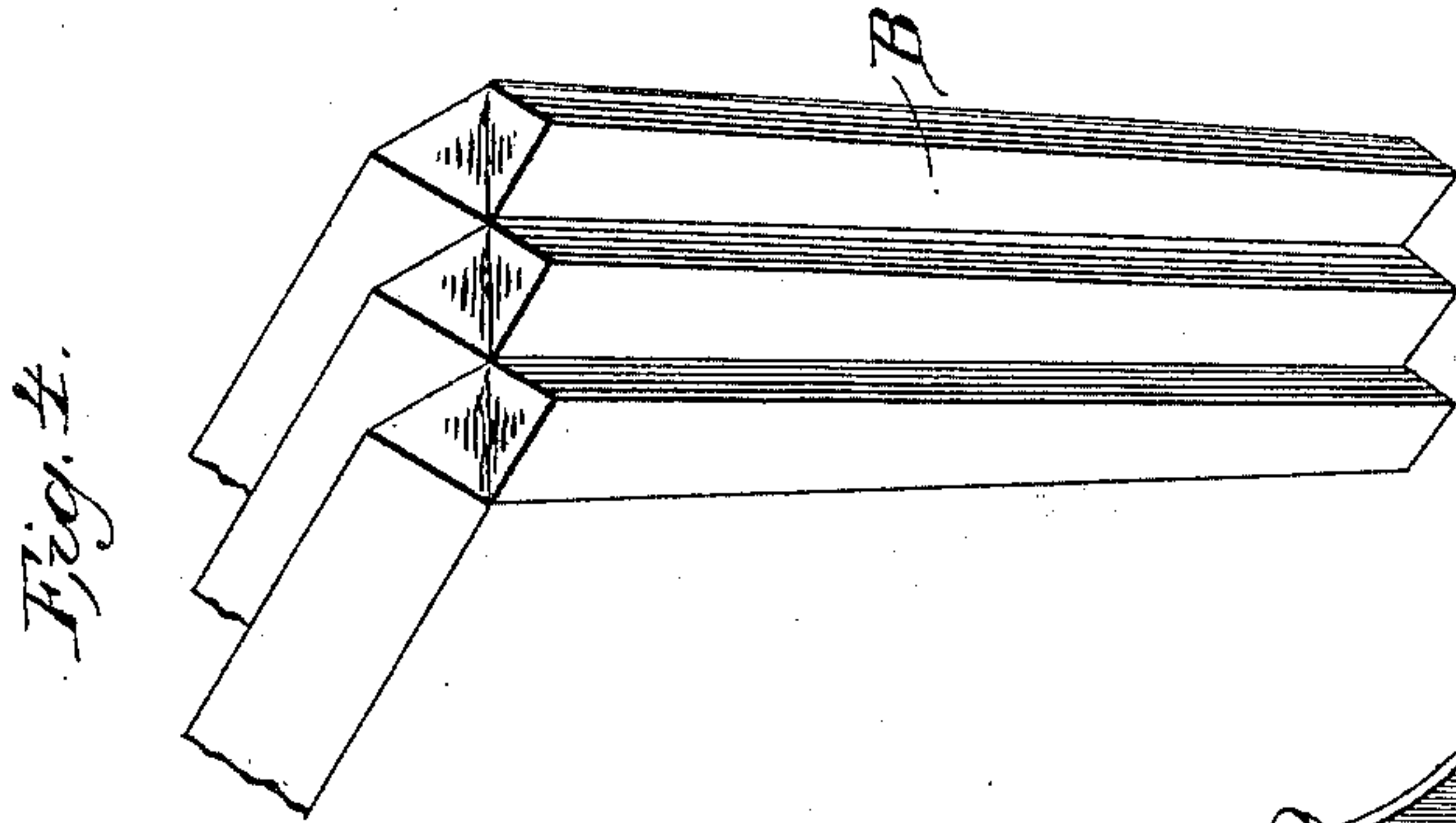
Inventor

*Benjamin M. Hodson*

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# UNITED STATES PATENT OFFICE.

BENJAMIN M. HODSON, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO  
HENRY F. HEUER, OF SAME PLACE.

## VESTIBULE-CAR.

SPECIFICATION forming part of Letters Patent No. 452,787, dated May 26, 1891.

Application filed June 12, 1890. Serial No. 355,210. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN M. HODSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Vestibule-Car, of which the following is a specification.

This invention relates to railway-cars, and more especially to that class thereof known as "vestibule-cars;" and the object of the same is to effect improvements upon existing devices of this character.

To this end the invention consists in an improved means for pressing the face-plate forwardly into contact with the face-plate of the opposite door in such a manner that both the face-plates will have lateral and vertical movements while they are pressed forward, all as hereinafter more fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the end of one car connected with another car, the latter being shown in central longitudinal vertical section. Fig. 2 is a transverse horizontal section. Fig. 3 is a perspective detail showing another form of the invention. Fig. 4 is a perspective detail showing the bellows longer at its upper than at its lower end.

Referring to the said drawings, C is the car-body having a platform at its end, and H is the hood standing above said platform.

D are doors hinged beneath said hood so as to permit an entrance from the sides of the platform, as is customary in parlor, palace, and sleeping cars.

F are face-plates connected by a bellows B, of flexible material, with the posts of the outer door at each side of the platform, as is customary in vestibule-cars of this character.

Coming now to the present invention, R is a rod connected by a universal joint U with the face-plate F and extending loosely through a hole O in the end of the hood H and in the floor of the platform P, and the inner end of this rod is bifurcated and provided with a friction-pulley or grooved wheel W, as shown. A rope or chain N is connected at one end to the end bar of the hood H, passes over the wheel W, and is connected at its other end with a spring S inside the hood,

whereby the rod R is pressed normally outwardly through the hole O, but at the same time is permitted to swing laterally or vertically, according as the face-plate F rises and falls or moves from side to side with the motion of the car. It will be understood, however, that the hole O is of such a size as to not only permit the rod to slide through the same freely, but also to allow it to wobble.

It will be understood that the spring S may be composed of several leaves, as shown in Fig. 1, or may be a strong coiled spring, as shown in the other figures, without departing from the spirit of my invention. It will also be understood that, if desired, I may have two rods R at each top and bottom of the face-plate connected by a cross-bar *r* and provided with a single spring S and rope or chain N, as shown in Fig. 2, or provided with independent springs, as shown in Fig. 3. The arrangement may be duplicated beneath the platform P, or an ordinary expansion-spring E may be provided to force the rod *r* outwardly, as preferred. I consider it advisable to have the spring at the top of the car stronger than that at the bottom, and by this construction, when the cars are separated, the upper end of the face-plate will be projected a little beyond the lower end, in order that rain or snow will not beat in when the cars are uncoupled, and that when they are coupled the upper ends of the face-plates will be pressed so tightly together that rain or snow will not leak in. The universal joint U may in some cases be omitted, especially below the platform P, although I prefer to use it at the top.

What I claim as new is—

1. In a railway-car, the combination, with the face-plate F, connected by bellows B with the end of the car, of the rod R, connected to the face-plate, passing loosely through a hole in the end of the hood H, and having a wheel W journaled in its inner end, a cord N, connected at one end to the hood and passing over said wheel, and a spring S, carried by the hood and drawing the other end of said cord forward, as and for the purpose set forth.

2. In a railway-car, the combination, with the face-plate F, connected by bellows B with the end of the car, of the rod R, connected to the face-plate, having universal joint J in its

body near the point of connection, passing loosely through a hole O in the end of the hood H, and having a wheel W journaled in its inner bifurcated end, a chain N, connected  
5 at one end to the hood and passing over said wheel, and a spring S, carried by the hood and drawing the other end of said chain forward, as and for the purpose set forth.

3. In a railway-car, the rectangular face-  
10 plate F and the bellows B, connecting it with the end of the car, said bellows being longer at its upper than at its lower end, whereby the upper end of the face-plate will stand normally beyond the lower end, in combination

with means, substantially as, described, for  
15 pressing the upper and lower ends of the face-plate independently forward with a yielding force which is stronger at the top than at the bottom of the plate, as and for the purpose  
20 set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

BENJAMIN M. HODSON.

Witnesses:

HENRY F. HEUER,  
PATRICK WALSH.