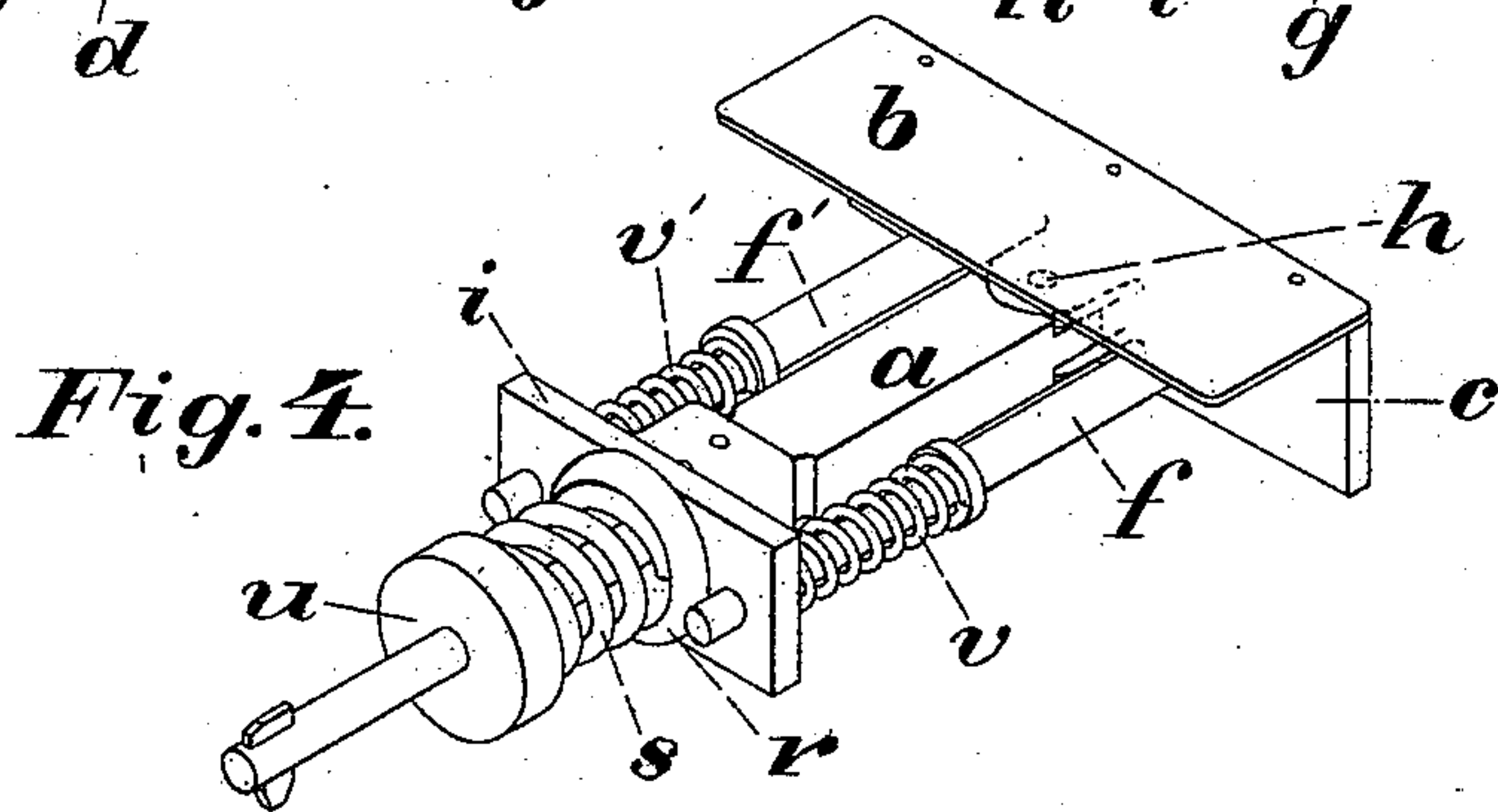
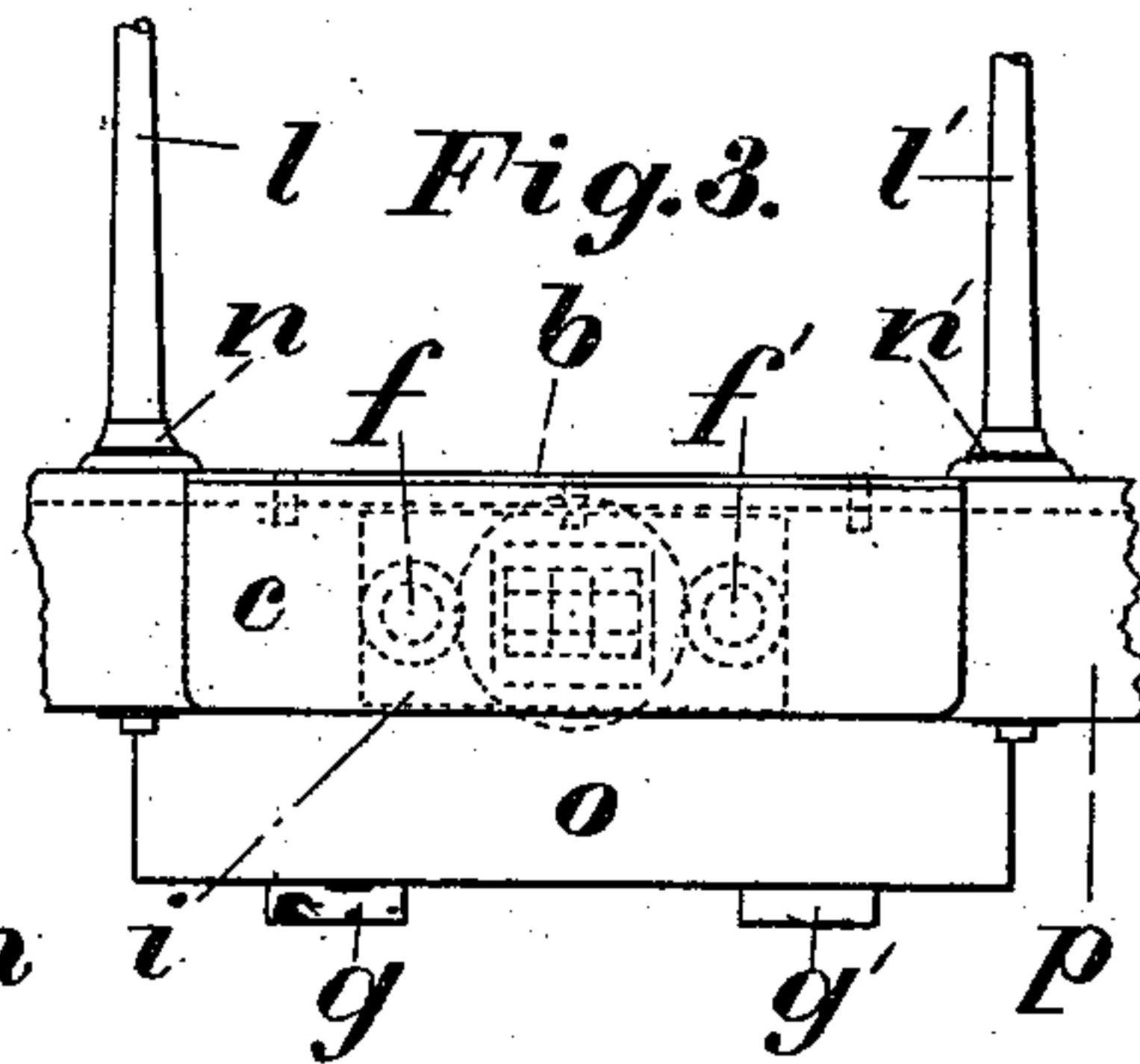
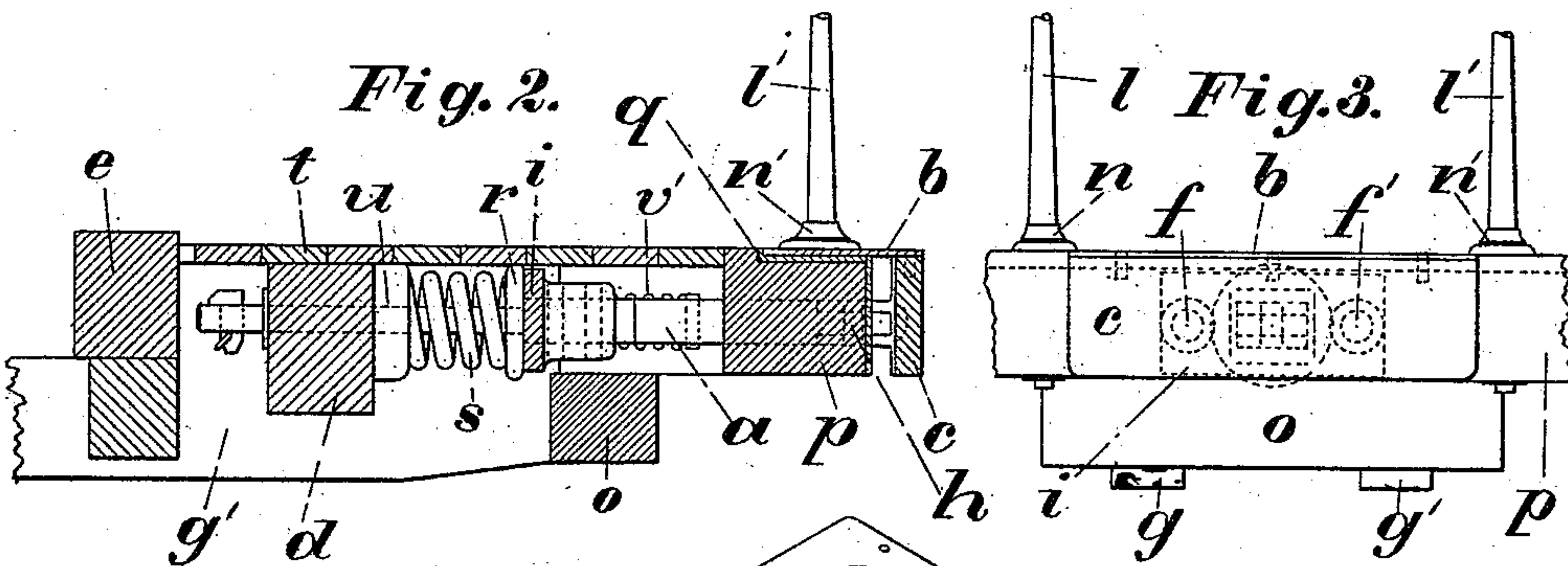
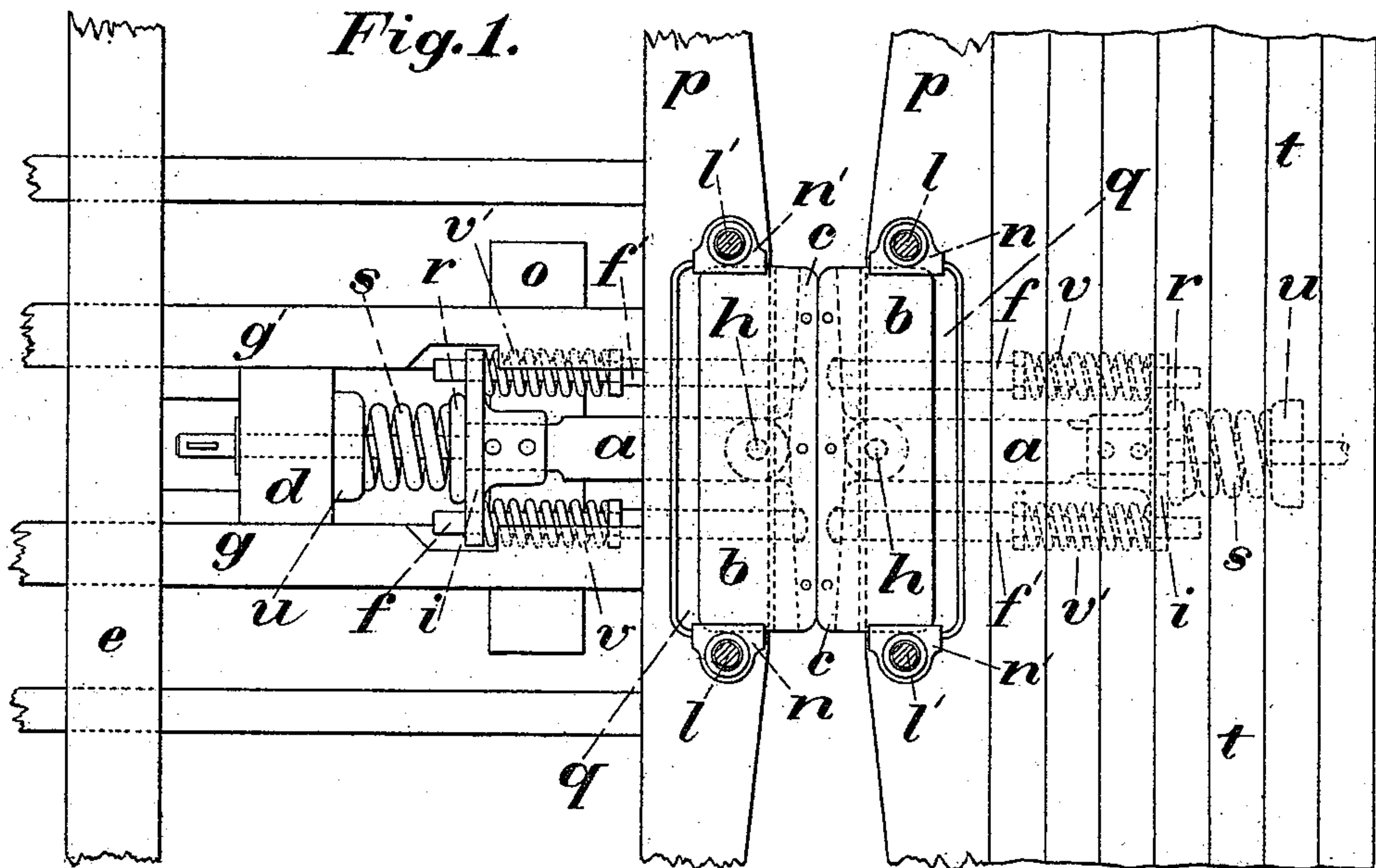


(No Model.)

H. H. SESSIONS.  
FOOT PLATE FOR CAR PLATFORMS.

No. 538,087.

Patented Apr. 23, 1895.



*Witnesses*

*Judson Lattin*

*A. Royman*

*Inventor*  
*H. H. Sessions.*



# UNITED STATES PATENT OFFICE.

HENRY HOWARD SESSIONS, OF PULLMAN, ASSIGNOR TO THE PULLMAN'S  
PALACE CAR COMPANY, OF CHICAGO, ILLINOIS.

## FOOT-PLATE FOR CAR-PLATFORMS.

SPECIFICATION forming part of Letters Patent No. 538,087, dated April 23, 1895.

Application filed April 2, 1887. Serial No. 233,413. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY HOWARD SESSIONS, of Pullman, in the county of Cook and State of Illinois, have invented a new and Improved End-Platform Foot-Plate, of which the following is a full, clear, and exact description.

Railroad passenger cars are generally constructed in such a manner that they can be conveniently coupled together, and, as the custom or practice in this country demands that there shall be an open or free passage from car to car when the cars are so coupled together, end platforms of various forms have been devised having for their object to provide (apart from the mechanical necessities involved in coupling) a safe and convenient means of ingress and egress to and from the cars for the passengers who are embarking or disembarking when the cars are at rest, and to provide for the support of the passengers when passing from car to car at times when the cars are in motion or at rest.

In coupling or connecting the cars together it is necessary to introduce some mechanical contrivance for the purpose of conferring a certain amount of elasticity so as to prevent all sudden shocks and jars as the train is started and stopped, which jars would be liable to result in injury both to the cars and to the passengers carried thereby; and it is also necessary to allow for a certain amount of swing at this connection in order that the cars may pass around any curves that there may be in the track. This necessary amount of elasticity in the connection between the cars has generally been obtained by the introduction of a spring at the back end of the draw bar, which spring will act to ease the pulling strain, and by introducing a buffer bar which has been arranged to extend a short distance beyond the end of the platform, said buffer bar being arranged to work into or against a buffer spring, this latter arrangement being provided to ease the pushing or buffing strain; but in the construction above described an open space has necessarily been left between the end platforms of the coupled cars, and this space, crossing as it does the gangway

used by passengers in passing from car to car, is a source of great inconvenience and danger to the passengers.

The object of the present invention is to provide for the bridging of the open space above referred to, and to this end the invention consists in the formation of a continuous gangway between the cars, as will be hereinafter more fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of portions of the end platforms of two railroad passenger cars, representing the parts as they appear when the cars are coupled together, the flooring of one of the platforms being removed in order to show the framing of the platform and the mechanical parts that are mounted beneath said flooring. Fig. 2 is a central longitudinal sectional view of one of the end platforms. Fig. 3 is an end view of the central portion of said platform; and Fig. 4 is an isometrical perspective view of the buffer plate and its connections including the foot plate.

In the drawings above referred to, *a* is a buffer bar that is attached to a buffer head *c* by means of a knuckle joint *h*, or in such other way as may be desired. In connection with the buffer bar, which extends out beyond the platform end timber *p*, I arrange a buffer spring *s* and a follower plate *i*, said plate being rigidly connected to the buffer bar while the spring *s* abuts at one end against a spring cap *r* and at the other against a seat *u* that is held to the buffer spring beam *d*, through which beam the inner end of the buffer bar extends, the buffer spring beam being, as usual, supported by the platform timbers *g* and *g'*.

Auxiliary buffer bars *f* and *f'* are held against the buffer plate *c* by auxiliary springs *v* and *v'*, said springs bearing against the forward face of the follower *i* and against collars formed on, or connected to, the buffer bars *f* and *f'*, the rear ends of said bars being upheld by the follower through which the bars pass.



A foot plate *b* is connected to, or made integral with, the buffer plate *c*, and this foot plate is arranged to move back and forth within the groove of a receiving plate *q* that is fixed to the end timber *p*, said end timber being recessed to receive the plate *q*, the arrangement being such that the upper surface of the foot plate will be level with the flooring of the platform, which flooring is shown at *t*.

The bases *n* and *n'* of the platform pillars *l* and *l'* are so shaped as to overlap and form guides for the foot plate *b*.

It will be understood that when the cars are coupled together the buffer plates *c c* abut the one against the other, as illustrated in Fig. 1, and an inspection of said figure will show that the open space between the platform end timbers is bridged by the foot plates *b* and the approaching edges of these plates and the buffer heads will be held together irrespective of the position of the platform timbers; for when the cars are passing round a curve in the track, or when for any reason, the parallelism of the platform end timbers is disturbed, a compressing strain is thrown upon one end of the buffer heads and the other end will be thrown forward, so that when the parallelism of the platform end timbers is restored, the buffer heads will be restored; from which it will be seen that the edges of the two foot plates will be always held in contact. Now, although I have described and illustrated specific constructions I wish it to be distinctly understood that the apparatus might be materially modified in so far as the details of construction are concerned.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

1. The combination with a buffer head, of a buffer bar upon which the head is free to rock, a spring arranged in connection with the buffer bar, auxiliary buffer bars, springs arranged in connection with the auxiliary bars, and a foot plate connected to the buffer head, substantially as described.

2. The combination with a buffer head, of a central buffer bar having its forward end pivotally connected to said head, a follower rigidly secured to said buffer bar, a spring arranged to bear on said follower, auxiliary buffer bars arranged parallel to said central buffer bar on each side thereof and bearing at their forward ends on the buffer head, and springs having a bearing on said follower and on said auxiliary bars, substantially as described.

3. The combination with a buffer head, of a central buffer bar having its forward end pivotally connected to said head, a follower rigidly secured to said buffer bar, a spring arranged to bear on said follower, auxiliary buffer bars arranged parallel to said central buffer bar on each side thereof and bearing at their forward ends on the buffer head, springs having a bearing on said follower and on said auxiliary bars, and a foot plate connected with said buffer head, substantially as described.

HENRY HOWARD SESSIONS.

Witnesses:

JUDSON LATTIN,  
A. TWYMAN.