P. HIEN.

Platform for Railway-Cars.

No. 209,890. Patented Nov. 12, 1878.

FIG. 1.

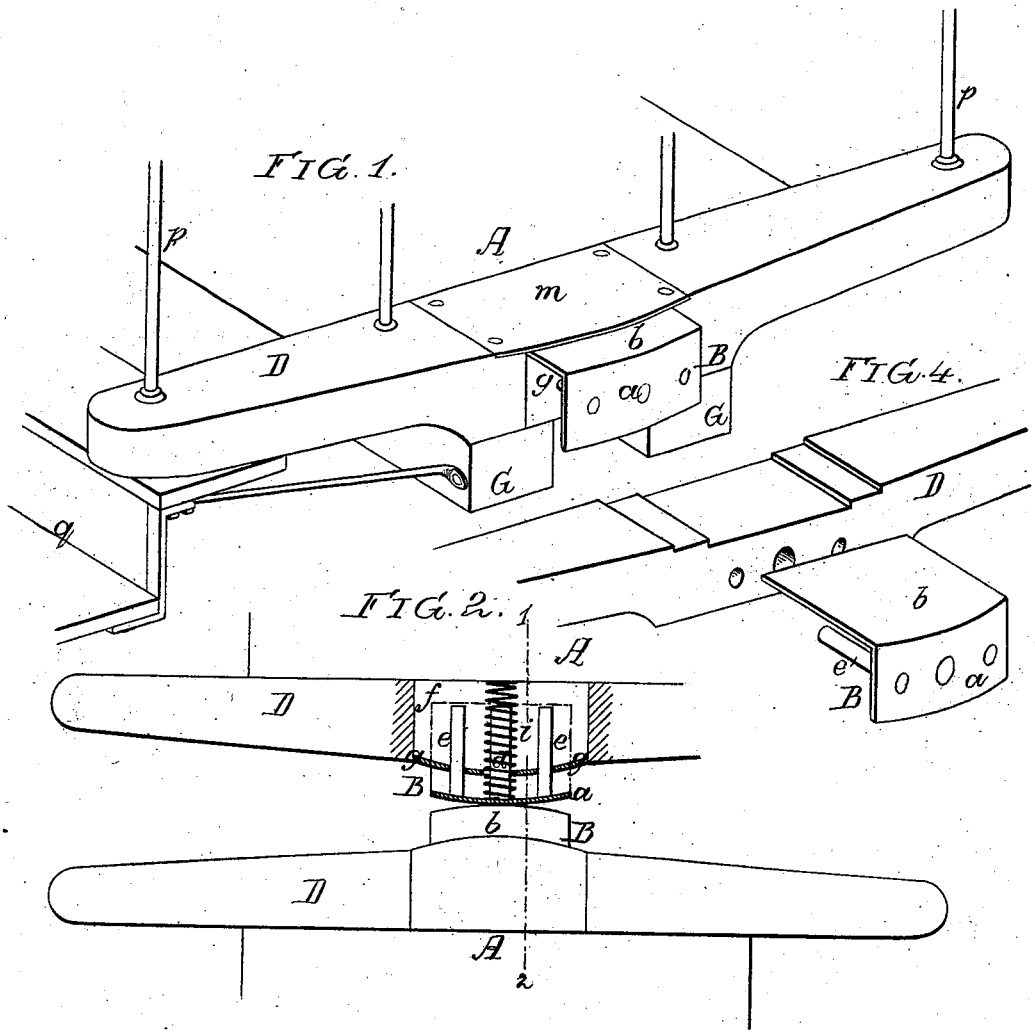
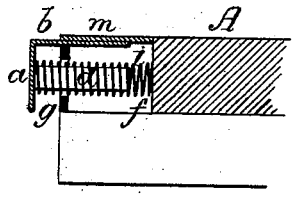


FIG. 3.



Witnesses,
Harry A. Crawford
Harry Smith

Inventor,
Phillip Hien
by his Attorneys
Howson and Sons

UNITED STATES PATENT OFFICE.

PHILLIP HIEN, OF ROCK ISLAND, ILLINOIS, ASSIGNOR TO SARAH HIEN AND BASIL D. BUFORD, OF SAME PLACE.

IMPROVEMENT IN PLATFORMS FOR RAILWAY-CARS.

Specification forming part of Letters Patent No. **209,890,** dated November 12, 1878; application filed September 27, 1878.

To all whom it may concern:

Be it known that I, PHILLIP HIEN, of Rock Island, Illinois, have invented a new and useful Improvement in Railroad-Car Platforms, of which the following is a specification:

The object of my invention is to combine with the platforms of railroad-cars simple, inexpensive bridges, which will afford a sure footing for passengers and others in passing from the platform of one car to that of an adjoining car.

In the accompanying drawing, Figure 1 is a perspective view of a car-platform with my improvement; Fig. 2, a plan view of Fig. 1, partly in section; Fig. 3, a vertical section on the line 1 2, Fig. 2; and Fig. 4, a perspective view, illustrating a mode of applying my invention to the platform of a car.

A, Fig. 1, represents the projecting platform of a railroad-car; D, the usual transverse beam, which is secured to the longitudinal beams G G at the outer end of the platform; *p p*, the posts of the usual hand-rail, and *q* the ordinary steps.

Each bridge is composed of two plates, B, one carried by the platform of one car, and the other by the platform of the adjoining car; and each plate B is composed of the horizontal portion *b*, and at right angles to the latter, the vertical portion *a*, the face of which is rounded, as shown in the plan, Fig. 2, and perspective views, Figs. 1 and 4.

From the rear of the vertical portion *a* of the bridge-plate project rods *e e*, two in the present instance, which pass through and are guided by orifices in a plate, *g*, secured to the front of the beam D, so as to cover a recess, *f*, formed in the said platform. A central pin, *d*, also projects from the rear of the said vertical portion *a* of the bridge-plate, and around this pin is coiled a spring, *i*, which, bearing against the end of the recess, tends to force the bridge-plate outward, but permits it to yield under pressure.

While I prefer this arrangement, other modes of guiding the bridge-plate B and different systems of springs for acting on the same will readily suggest themselves.

The horizontal portion *b* of the bridge-plate is adapted to and can slide in a recess formed in the upper edge of the plate *g*, and is confined to the same by a thin plate, *m*, of metal, let into and secured to the top of the platform.

Instead of cutting away the beam D to form a large recess, *f*, the beam may be formed as shown in Fig. 4, holes being bored into its edge for the reception and free movement of the guide-rods *e e* of the bridge-plate and for the pin *d* and its spring *i*.

When two cars, the platforms of which have the above-described bridge-plates, are coupled together, the front portions, *a*, of the said plates are always maintained in contact with each other by their respective springs, and the upper portions, *b*, of the plates of the two cars constitute a bridge, which, being nearly level with the upper surfaces of the platforms, will serve as a safe footing for passengers and others in crossing from car to car, both plates yielding as the bumpers yield in stopping or backing the train, but, owing to the springs, continuing to bridge the increased space between the platforms when there is tension on the train.

The curved front ends, *a*, of the bridge-plates insure their proper abutment when the cars are traversing a curve.

I claim as my invention—

1. The combination of the guided bridge-plate B with a plate, *g*, and confining-plate *m*, all constructed and adapted to the platform of a car, substantially as described.

2. The combination of the bridge-plate B and its guide-rods *e e* with a platform having a recess or recesses for receiving the said pins and a plate, *g*, for guiding the latter, all substantially as specified.

3. The within-described bridge composed of two guided spring-plates, one on the platform of one car and the other on the platform of the adjoining car, and each plate having a rounded outer end, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PHILLIP HIEN.

Witnesses:

JAMES M. BEARDSLEY,

HOWARD GREENER.