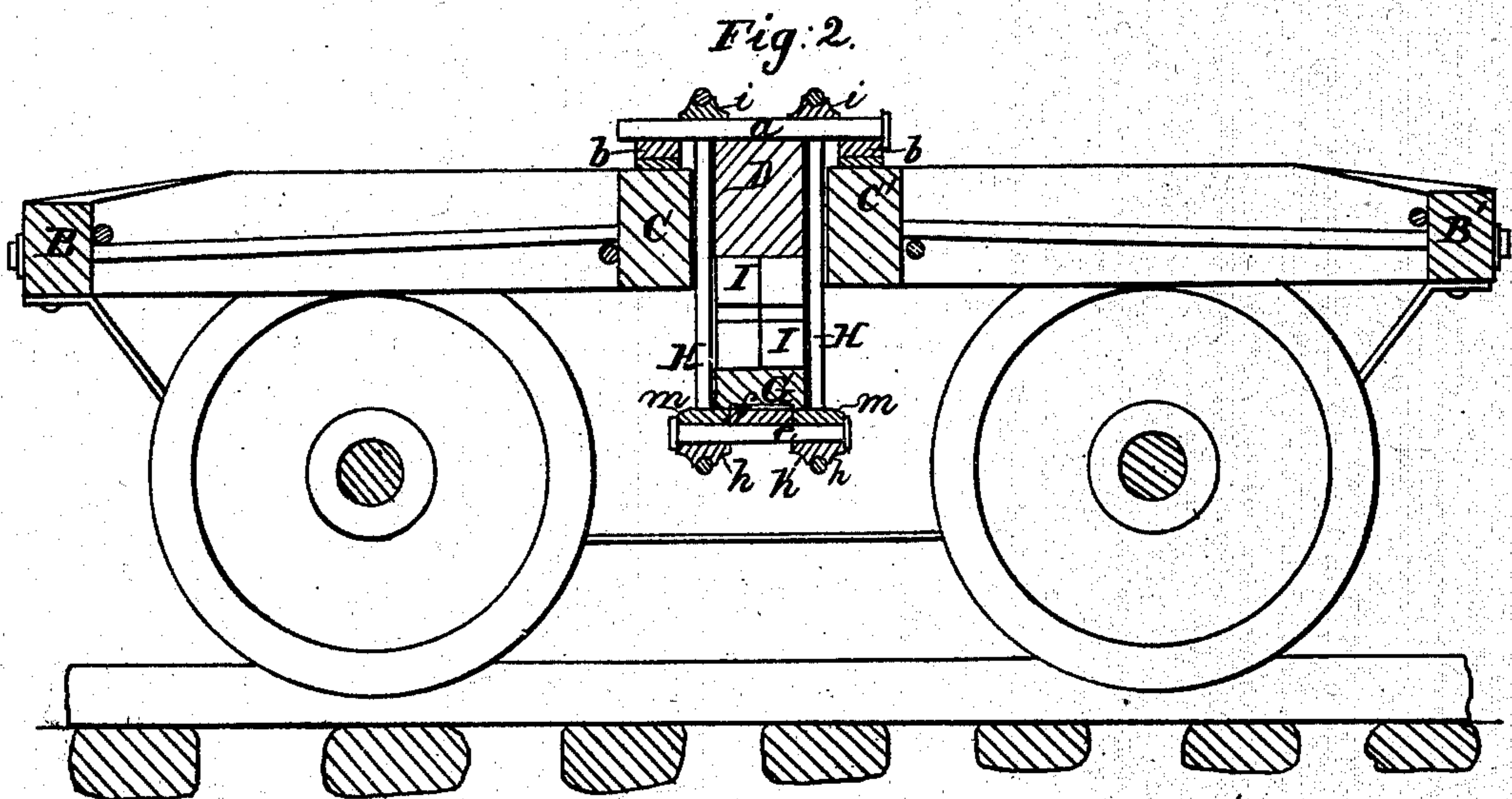
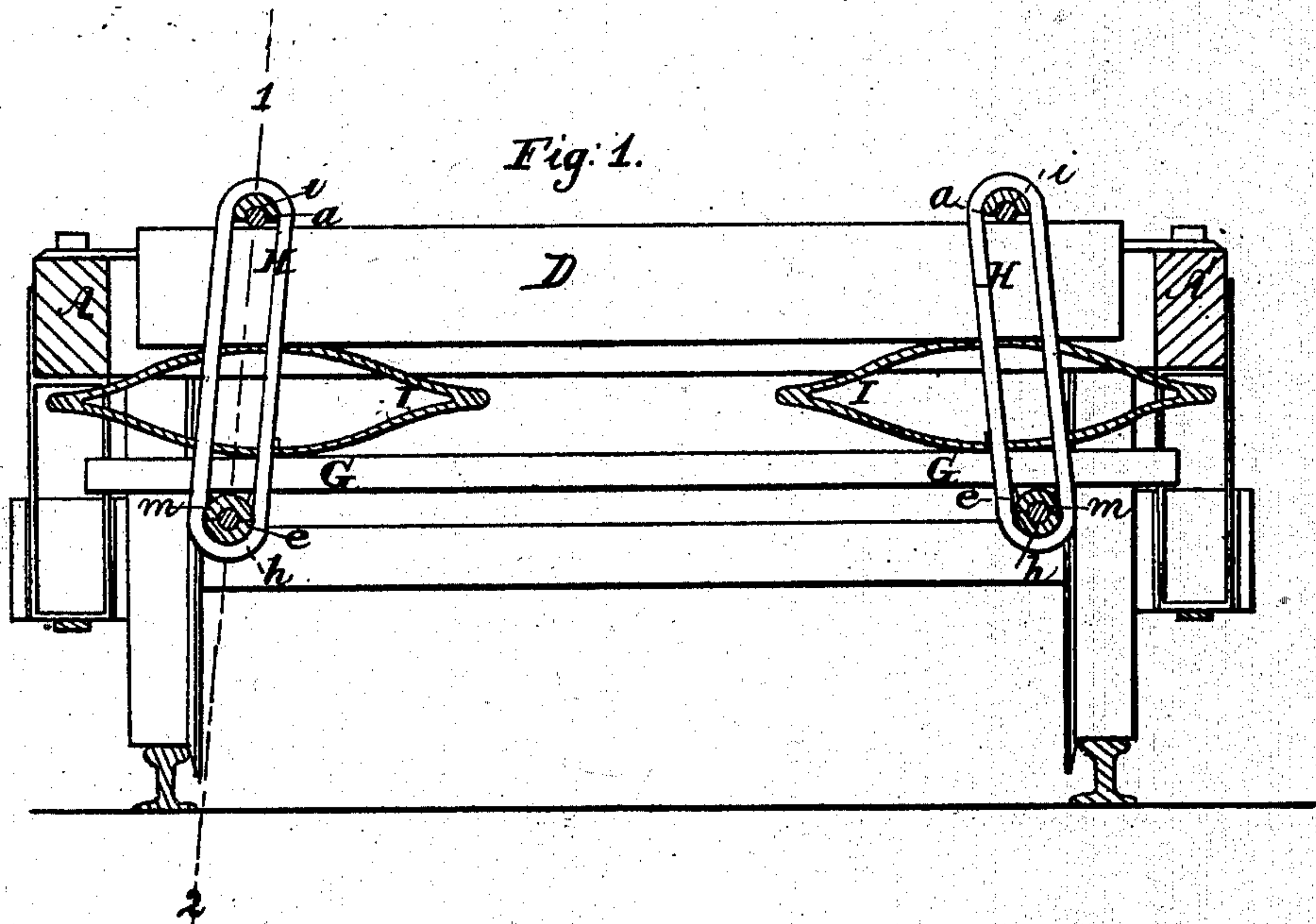


H. KIPPLE & J. D. BULLOCK.
RAILROAD CAR TRUCK.

No. 26,502.

Patented Dec. 20, 1859.



Witnesses;
Henry H. Price
R. M. West

Inventor;
Henry Kipple
Jacob D. Bullock

UNITED STATES PATENT OFFICE.

H. KIPPLE AND J. D. BULLOCK, OF PHILADELPHIA, PENNSYLVANIA.

CAR-TRUCK.

Specification of Letters Patent No. 26,502, dated December 20, 1859.

To all whom it may concern:

Be it known that we, HENRY KIPPLE and JACOB D. BULLOCK, both of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Railroad-Car Trucks; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Our invention consists of a bolster and platform with intervening springs of any suitable construction, in combination with inclined links having sockets below adapted to pins on the under side of the platform, and having similar sockets above adapted to pins on the permanent beams of the truck, the whole being arranged on the latter substantially as set forth hereafter, so that the bolster may have a lateral play limited by the links, thus imparting to the car an easy lateral movement as it passes over curves and uneven portions of the track.

In order to enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

On reference to the accompanying drawing which forms a part of this specification, Figure 1, is a transverse vertical section of a railroad car truck with our improvements. Fig. 2, a longitudinal section on the line 1, 2 Fig. 1.

A and A' are the two side beams, B and B' the two end beams, and C and C' the two intermediate transverse beams of a railroad car truck. Between the two beams C and C', is situated the bolster D, which is of such a length that it may have a slight end play between the side beams A and A' of the truck. Below the bolster is a platform G suspended by links H H from the beams C and C' of the truck, and between the platform and the bolster intervene two or more elliptical springs I, or springs of other suitable form and construction. The links H are situated one pair near each end of the bolster and platform, each pair being connected at the top to a pin *a* which rests on and is capable of turning in sockets *b b*, one of which is secured to each of the beams C and C' of the truck. The lower ends of each pair of links are connected to a pin *e* which is adapted to and is capable of turning in a socket *f* secured to the under side of the platform G. Between each link and the pin *a* intervenes

a block or step *i* adapted to the shape of the pin so as to turn thereon, and between each link and the pin *e* is a similar block H and between the pin and the platform is a cap *m* situated directly over each cap *h*.

The car rests on the bolster D, so that its weight is exerted on the springs I I and through the latter and the links on the pins *a* which rest on the two transverse beams C and C' of the track.

It will be evident that as the truck passes over the curved or uneven portions of the track, the bolster D will be free to move laterally between the two side beams A and A' of the truck. When this movement of the bolster takes place the links will vibrate freely in the pins *a* above, and below on the pin *e* as the sockets *h* and *i* of the links are adapted to the form of their respective pins. Should there be any undue friction of the sockets on the pins, the latter will move in their sockets the pin *a* on the sockets *b b* on the beams C and C', and the pin *e* in the socket *f* on the under side of the platform G.

Each pair of links is slightly inclined from their lower ends upward toward the center of the truck so that when the bolster has a tendency to move from left to right it is restrained by the left hand links and when moving from right to left it is restrained by the right hand links.

It will now be seen that although the bolster has sufficient lateral play to yield as the car passes curves in the track (thus obviating the disagreeable jar which takes place when permanent bolsters are used) its movement is limited by the inclined links to such an extent that it cannot come in contact with the side beams of the truck.

We claim as our invention and desire to secure by Letters Patent—

The bolster D and platform G with the intervening springs I of any suitable construction in combination with the inclined links H H, their sockets *h* and *i*, and the pins *a*, the whole being arranged on the truck substantially as set forth and for the purpose specified.

In testimony whereof, we have signed our names to this specification before two subscribing witnesses.

HENRY KIPPLE.
JACOB D. BULLOCK.

Witnesses:

HENRY H. PRICE,
R. S. WEST.