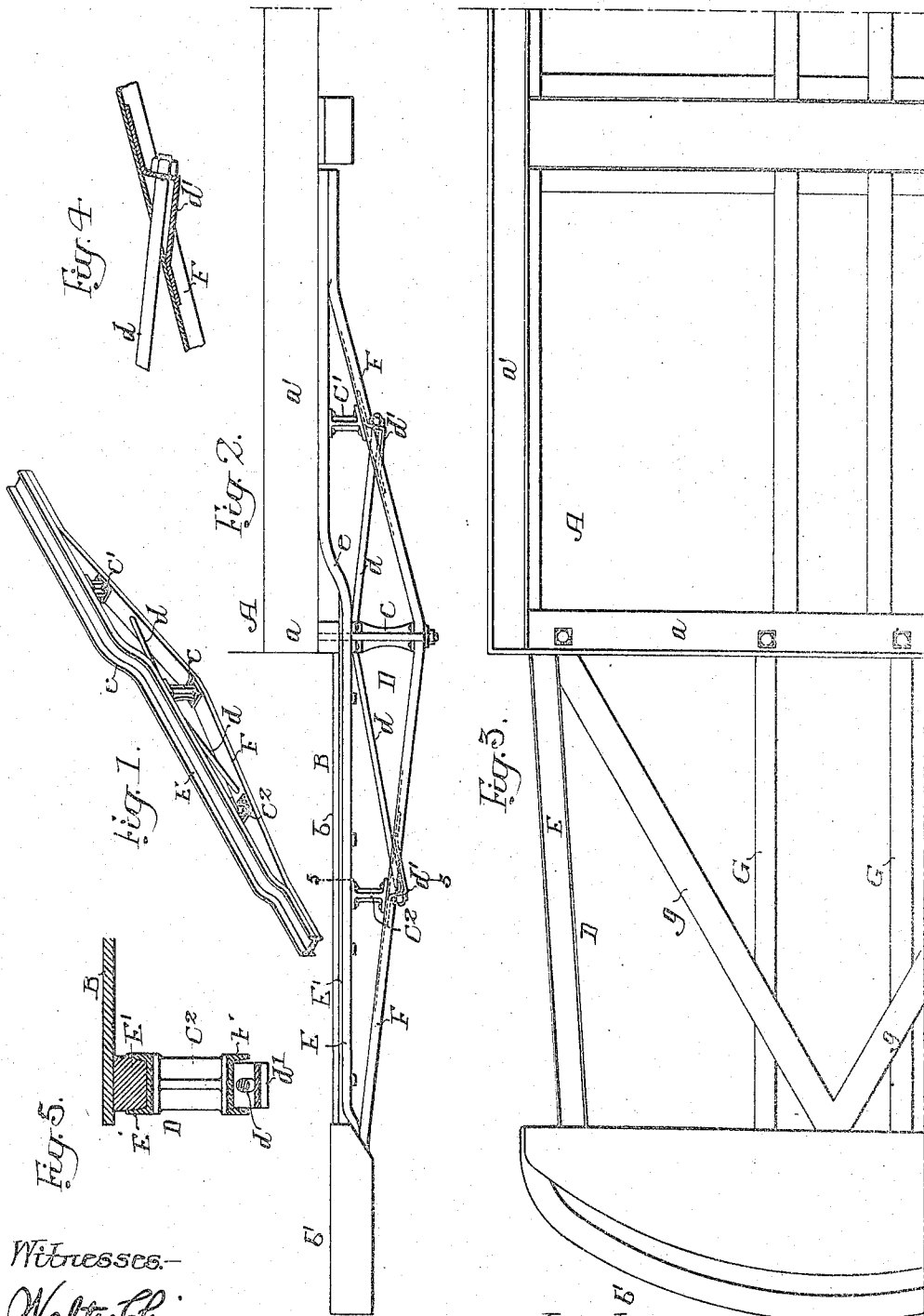


H. E. HADDÖCK.
KNEE FOR CAR PLATFORMS.
APPLICATION FILED JUNE 19, 1909.

937,521.

Patented Oct. 19, 1909.



Witnesses—
Walter Chism.
Wills A. Burrows.

Inventor—Henry E. Haddock.
by his Attorneys—
Harold Haddock.

UNITED STATES PATENT OFFICE.

HENRY E. HADDOCK, OF CLEVELAND, OHIO, ASSIGNOR TO THE J. G. BRILL COMPANY,
OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

KNEE FOR CAR-PLATFORMS.

937,521.

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To all whom it may concern:

Be it known that I, HENRY E. HADDOCK, a citizen of the United States, residing in Cleveland, Ohio, have invented certain Improvements in Knees for Car-Platforms, of which the following is a specification.

The object of my invention is to improve the construction of the knees which support the platform of a passenger car, particularly of the type having an extended platform such as cars in which the passenger pays the fare on entering the car and where space is desired for the free ingress and egress of passengers, although it will be understood that my invention can be used with advantage in cars of other types.

In the accompanying drawing:—Figure 1, is a perspective view of my improved platform knee; Fig. 2, is a side view of my improved platform knee with sufficient of the car body to illustrate its application; Fig. 3, is a plan view; Fig. 4, is a view of a detail; and Fig. 5, is a transverse sectional view on the line 5—5, Fig. 2.

A is the lower frame having an end sill *a* and side sills *a'* of the ordinary type.

B is the platform having a wooden floor *b*, and *b'* is the bumper or crown piece of the platform.

D, D are the two platform knees, one arranged in the present instance at each side of the car body and projecting from the end thereof and acting as the supports for the platform B. The two knees are made of metal; the upper cord E is a channel bar with the flanges turned upward and the lower cord F is another channel bar with the flanges turned downward. These two channel members are united at each end by riveting or welding and struts C, C' and C² are placed at intervals throughout the length of the knee so as to space the upper and lower cords the proper distance apart. The upper cord is bent at *e* so as to allow the overhanging portion of the knee to drop sufficiently below the end sill *a* of the car body, so as to bring the platform to the proper level. *d* is the tension rod extending from a point under the strut *c'* to a point under the strut *c²* and this rod extends through the top of the central strut C. The rod has nuts at each end so that it can be taken up at will. In the present instance I form brackets

for the struts which are shaped to give a flat bearing for the nuts or heads of the rod. These brackets are mounted between the flanges of the lower channel beam *f* forming the lower cord and are secured by rivets or other means. This construction of platform knee is very light and yet substantial, readily carrying the weight of the extended platform and will not drop. One of the objections to a platform knee made of lumber is that it will shrink after it is placed in position.

I preferably mount in each of the upper channel bars E a wooden sill E'. This sill is secured to the channel bar by bolts, as illustrated in Fig. 2, and mounted on these sills are boards forming the floor *b'* of the platform. I preferably mount on each side of the center of the platform two knees G, G. These knees extend from the end sill *a* and the bumper or crown piece *b'*. Angle braces *g, g* extend from the knee D at the sill *a* to the center of the crown piece, as illustrated in Fig. 2, bracing the platform against any lateral movement.

By the above construction I make a very light and substantial platform knee which cannot shrink and therefore the platform will not sag, as is the case in most platforms in which the knees are made of lumber.

I claim:—

1. The combination in a knee for a car platform having upper and lower cords, with struts of different lengths, and a tension rod extending from a point some distance from the center strut at the lower cord and extending over the center strut.

2. The combination of a car body having an end sill, a platform knee made up of upper and lower cords, struts spacing the cords apart, and a tension rod, the center strut being higher than the side struts, that portion of the knee extending under the car body being secured to the side sills, the other end of the knee extending to and supporting the crown piece of the platform, as well as, the floor of the platform.

3. The combination in a car, of a body portion, two knees one at each side of the car and projecting from the end thereof to support the platform, the knees being made of two longitudinal channel bars forming

the upper and lower cords of a truss, and
struts mounted between the two cords, the
central strut being below the end sill of the
car frame, tension rods extending diagonally
5 from the two points at the lower cord over
the central strut, and a platform carried by
the said knees.

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

HENRY E. HADDOCK.

Witnesses:

JULIUS E. BUSCHMAN,
MARTIN H. SCHEFFT.