H. C. BUHOUP.

BUFFER BLOCK.

APPLICATION FILED AUG. 15, 1910.

984,071.

Patented Feb. 14, 1911.

2 SHEETS—SHEET 1.

Fig. 5.

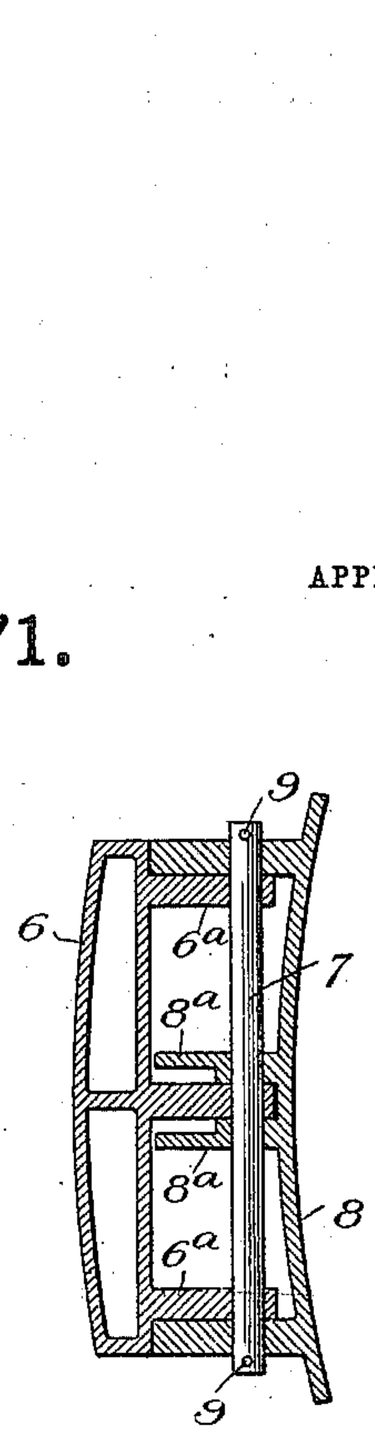

Fig. 1.

Fig. 6.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

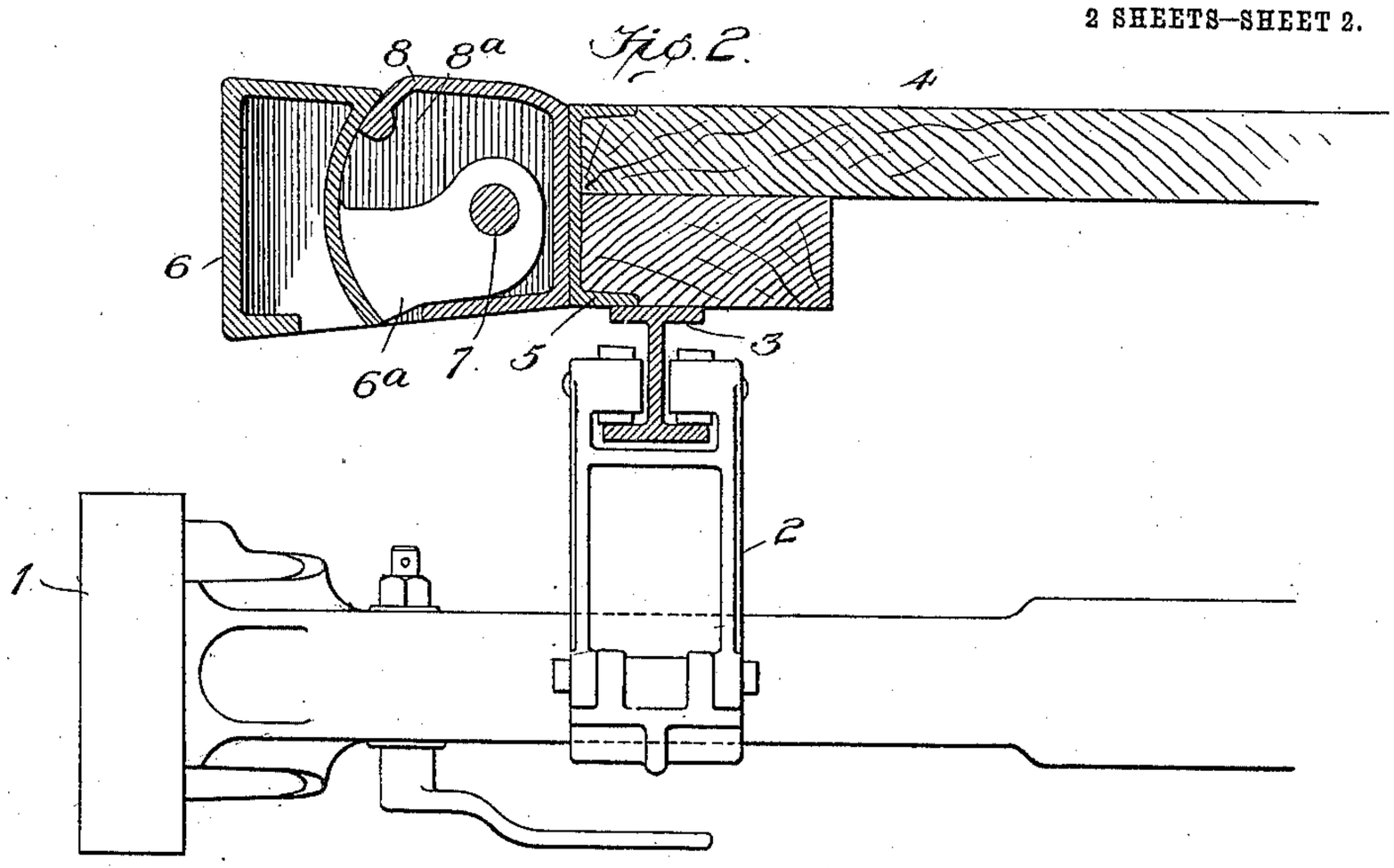


Fig. 3.

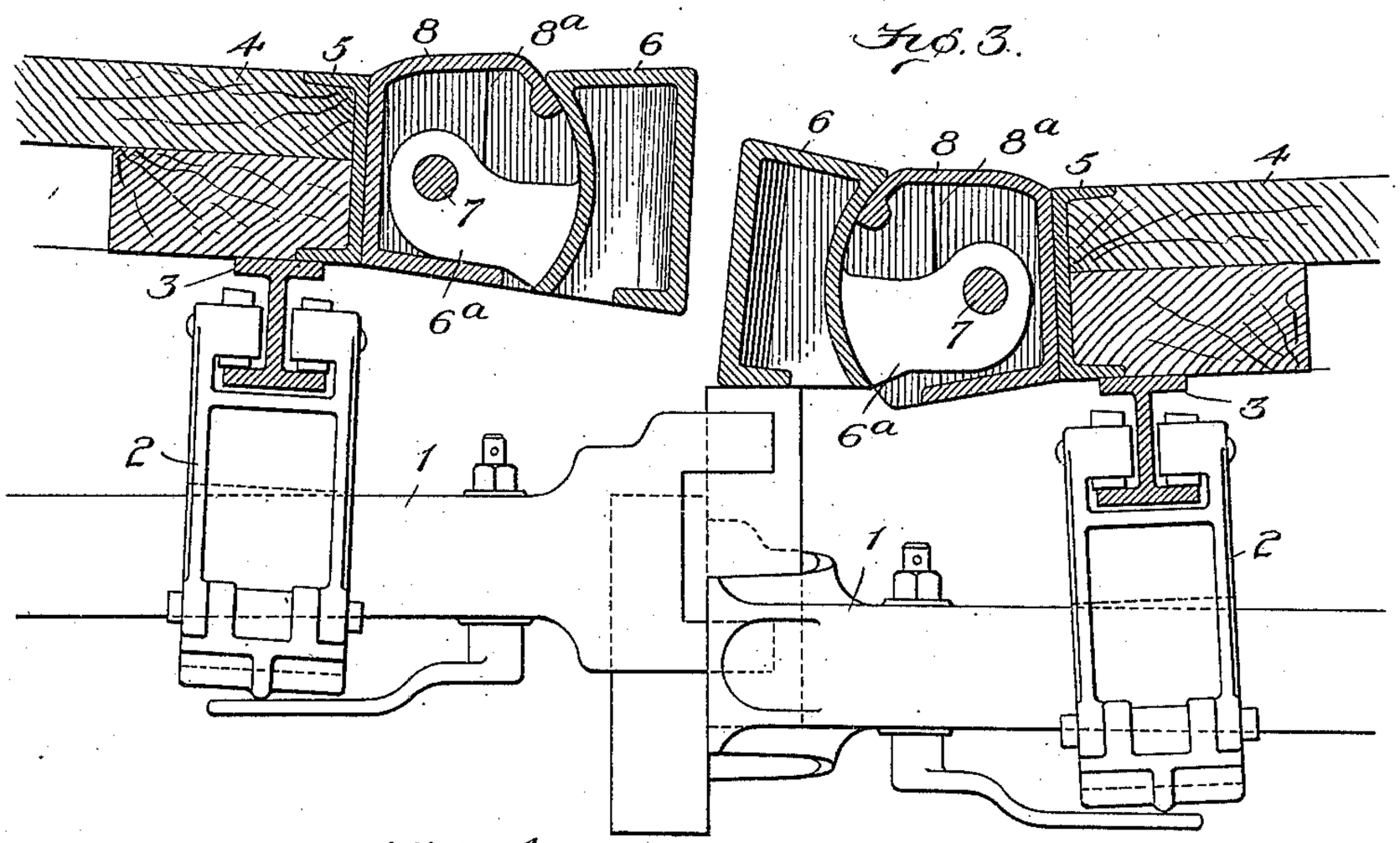
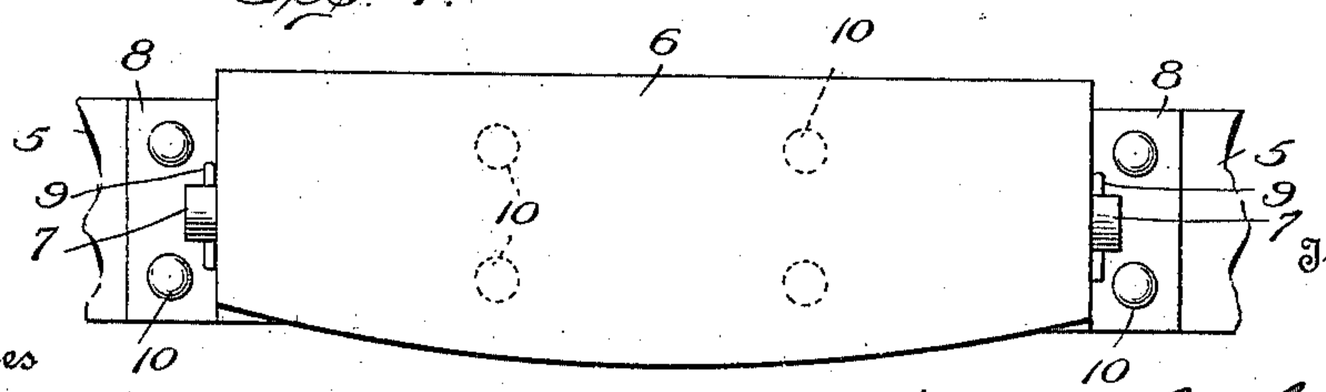


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

HARRY C. BUHOUP, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE McCONWAY & TORLEY COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BUFFER-BLOCK.

984,071. Specification of Letters Patent. Patented Feb. 14, 1911.

Application filed August 15, 1910. Serial No. 577,251.

To all whom it may concern:

Be it known that I, HARRY C. BUHOUP, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Buffer-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the construction of buffer-blocks for railway cars and is designed to afford a construction which is especially adapted for use on cars such as are at present commonly in service on interurban lines having sharp horizontal and vertical curves.

The principal object of the invention is to greatly decrease the distance between such cars when coupled together, thus substantially eliminating the danger to which passengers are at present exposed when passing from one such car to another while the train is in motion.

The invention, generally stated, consists in combining with the platform of a car, a pivotally mounted, vertically movable buffer-block whose vertical movements are controlled by the car coupler of the adjacent car.

There are other, minor, features of invention residing in particular combinations and in elemental parts, all as will hereinafter more fully appear.

In the drawings chosen for the purpose of illustrating my invention, the scope whereof is pointed out in the claims, Figure 1 is a plan view of the adjacent ends of two cars equipped with devices embodying my invention, the cars being in coupled relation; Fig. 2 is a detail view of the devices illustrated in Fig. 1, the car platform, pivotally mounted buffer-block, and coupler supporting rail being in vertical section, and the coupler and its supporting yoke being in elevation. Fig. 3 is a view similar to Fig. 2, but illustrating the manner in which the devices operate when the cars to which they are attached pass over uneven track; Fig. 4 is a detail front elevation of the pivoted buffer-block, showing its relation to the car platform; Fig. 5 is a horizontal section of the pivoted buffer-block illustrated in Figs. 1, 2, 3 and 4, the section being taken through the axis of the pivot pin and the pivot pin being shown in plan; and Fig. 6 is a detail vertical central section of a modified form of pivoted buffer-block embodying my invention.

Corresponding reference symbols indicate like parts wherever they occur.

I will now proceed to describe my invention more fully, so that others skilled in the art to which it appertains may apply the same.

In the drawings, 1 indicates a pivotally mounted coupler, 2 a yoke for supporting the same, and 3 a curved rail secured to the under side of the car platform and forming a track upon which the yoke 2 is slidably mounted. The specific form of these elements is not material and, therefore, they may be constructed as shown in the drawings or fashioned in any other suitable manner.

The car platform 4, as shown, may be curved and faced with a channel iron 5 which affords a convenient means for securely mounting the pivoted buffer-block upon the platform and for transmitting to the longitudinal sills of the car the buffing shocks received by the buffer-blocks.

As shown in Figs. 1 to 5, inclusive, of the drawings, it is preferred to pivotally mount the buffer-block 6 on the end of the car through the instrumentality of a pivot pin 7 and a frame 8, the pivot pin passing through appropriate apertures in the frame member and being secured in place by suitable means, such as cotters 9, and the frame 8 being preferably secured to channel iron 5 of the car platform by means of rivets 10. The buffer-block 6, which, as shown may be formed with a curved outer face, is preferably provided with a plurality of rearwardly extending, pivot lugs 6^a which are perforated to receive the pivot pin 7. These pivot lugs 6^a are so spaced as to contact and overlap forwardly extending portions of the buffer frame 8, to thus prevent the buffer-block 6 from sliding longitudinally of the pivot pin 7. In the particular form of construction illustrated in Figs. 1 to 5, inclusive, the buffer-block 6 is provided with three pivot lugs 6^a, the central one extending between forwardly extending webs 8^a of the

buffer frame and the two outer ones engaging the inner faces of the vertical side walls of the said frame 8. The buffer-blocks 6 preferably project outwardly from the ends of the car platforms sufficiently far to reduce the space between the opposed faces of adjacent buffers to less than the movement allowed by the full compression of the draft springs employed.

In the construction shown in Fig. 6 a buffer-block 11 is illustrated as pivoted directly to the channel iron 5 of the platform 4 by means of a simple hinge 12.

The operation of the hereinbefore described devices when the cars are passing over straight or low curvature uneven track will be readily understood upon reference to Fig. 3 of the drawings. When by reason of inequalities in the track, or from any cause, the difference in elevation of the adjacent car platforms reaches the limit designed to be permitted under normal conditions of service, the under side of the pivoted buffer-block on one or the other of the cars, as the case may be, is engaged by the coupler attached to the adjacent car and raised above its normal position to compensate for the abnormal difference in elevation of the car platforms.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In mechanism of the character indicated, the combination with the platform of a car, of a buffer-block pivotally mounted thereon, and a coupler extending outwardly beyond said buffer block and beneath the same, whereby said coupler may actuate a pivoted buffer-block on an adjacent car.

2. In mechanism of the character indicated, the combination with the platform of a car, of a buffer-block pivotally mounted thereon for vertical movement, the vertical movements of said buffer-block being controlled by the car coupler of an adjacent car.

3. In mechanism of the character indicated, the combination with a buffer-frame, said buffer-frame having a curved face and pivot pin holes, of a buffer-block having a correspondingly curved face and a plurality of perforated pivot lugs, and a pivot pin passing through the pivot pin holes of the buffer-frame and through the perforations of said pivot lugs of the buffer-block.

In testimony whereof I affix my signature, in presence of two subscribing witnesses.

HARRY C. BUHOUP.

Witnesses:

D. B. Mason,

Harry W. Stannard.