

I. O. WRIGHT.
 BUFFER BLOCK, CENTERING DEVICE, AND CARRY IRON FOR CAR COUPLINGS.
 APPLICATION FILED MAY 15, 1909.

952,696.

Patented Mar. 22, 1910.

2 SHEETS—SHEET 1.

FIG. 1

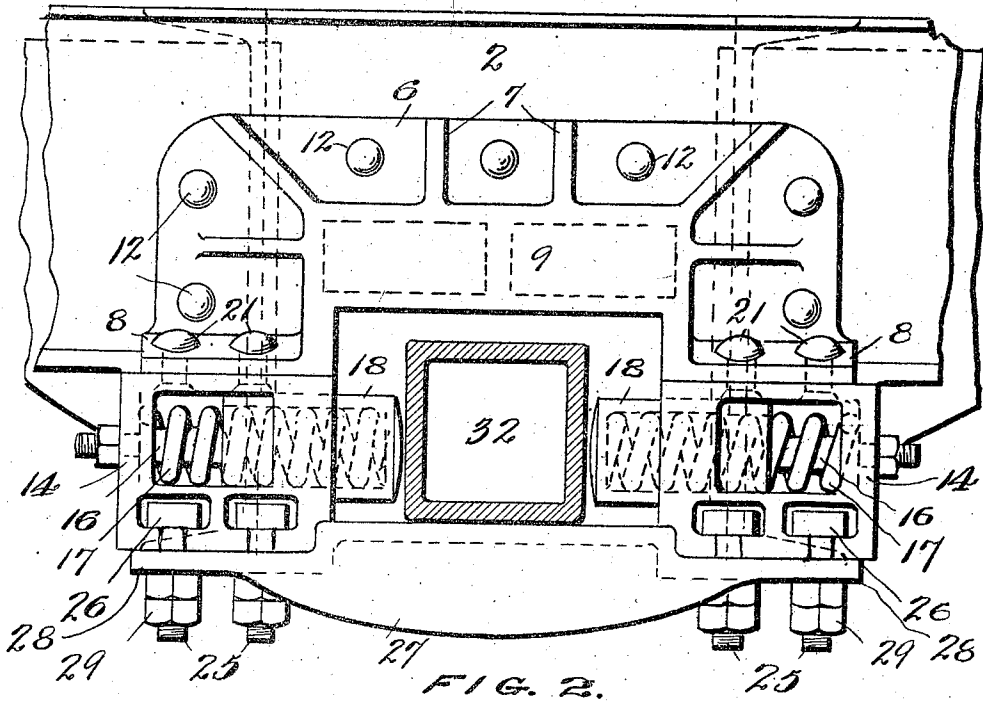
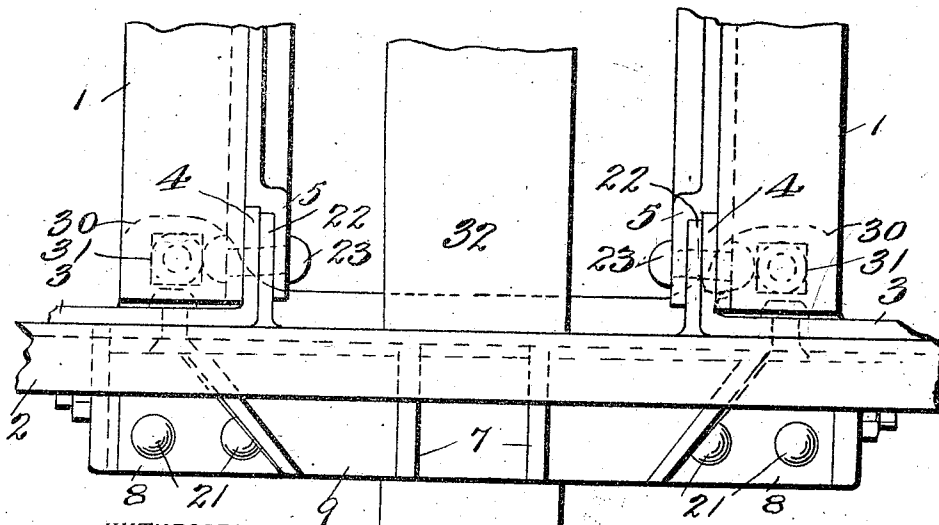


FIG. 2.



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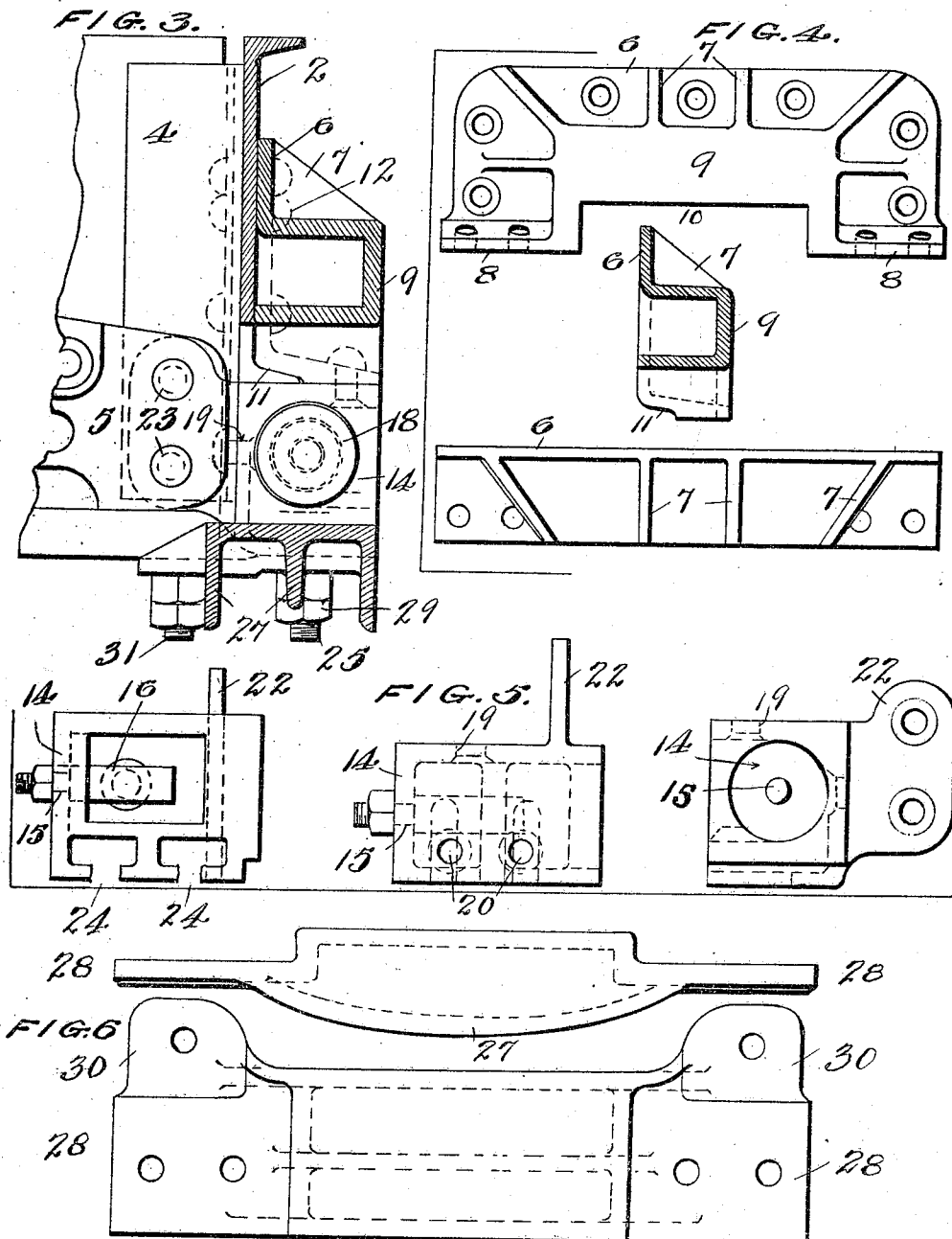
By F. E. Stebbins, Attorney.

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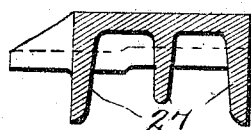
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

IRA O. WRIGHT, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE FARLOW DRAFT GEAR CO., A CORPORATION OF DELAWARE.

BUFFER-BLOCK, CENTERING DEVICE, AND CARRY-IRON FOR CAR-COUPPLINGS.

952,696.

Specification of Letters Patent.

Patented Mar. 22, 1910.

Application filed May 15, 1909. Serial No. 496,195.

To all whom it may concern:

Be it known that I, IRA O. WRIGHT, a citizen of the United States, residing at Baltimore city, State of Maryland, have invented certain new and useful Improvements in Buffer-Blocks, Centering Devices, and Carry-Irons for Car-Couplers, of which the following is a specification.

The object of my invention is the provision of means at the end of a car body for receiving the impact of the coupler when the springs have been compressed in buffing; for centering the draw bar, and for supporting the draw bar and coupler head, which means shall be so constructed and combined that a part when broken or injured can be removed and another substituted without discarding or removing all the combined parts.

A further object is the provision of a simple and effective centering device for the draw bar which shall be especially adapted for application and use in connection with cars having channel or flanged metallic center sills, and metallic end sills, though it may be applied to cars otherwise constructed.

My invention consists in certain novelties of construction and combinations of parts as herein set forth and claimed.

The accompanying drawings illustrate an example of the physical embodiment of the improvements or invention constructed according to the best mode I have so far devised for the practical application of the principle or principles.

Figure 1 is a front view in elevation of the central portion of the car end sill with the buffer block, centering device, and carry iron in place. Fig. 2 is a top plan view of Fig. 1 also showing the center sills and ends of the cheek plates. Fig. 3 is a vertical section in elevation of Fig. 1 taken in a plane at one side of the draw bar. Fig. 4 shows front elevation, top plan, and sectional views of the buffer block. Fig. 5 shows front elevation, side, and top plan views of one spring carrier. Fig. 6 shows front elevation, cross sectional, and top plan views of the carry iron.

Referring to the several figures, the nu-

meral 1 designates the metallic center sills or stringers, in this instance of channel beams spaced apart and with their flanges turned outwardly; 2, the end sill, in this instance a channel beam with its flanges extending outwardly, and of less depth or width than the center sills, the lower flange and part of the web being removed at the center; 3, 3, vertical metallic plates located back of the end sill; 4, the vertical edges or flanges of said plates, each bent at right angles to the body of the plate so the flange will be in frictional contact with the inner surface of the web of a channel center sill, the said flanges and webs being perforated to receive rivets; and 5 are the perforated front ends of the cheek castings which directly support the draft rigging at the rear end of the draw bar.

The buffer block, spring carriers, and carry iron are preferably made of cast metal and are of the shapes and constructions shown in detail by Figs. 4, 5 and 6. The buffer block consists of a casting having a flange at the top and sides strengthened by ribs 7, horizontal perforated flanges 8, 8, and a hollow boss or projecting portion 9. A recess 10 is formed at the lower edge for the draw bar, and inclined surfaces 11, 11 back of the flanges 8, 8 are fashioned to frictionally engage the lower flange of the channel end sill. Rivets 12 passed through the flange 6 and web of the end sill secure the block in position.

Each spring carrier consists of a hollow casting having an opening of a circular shape extending to the wall 14, which wall has a small opening 15 to receive a stem or lug 16 which supports the end of a coiled spring 17, as shown; 18 is a hollow chafing cylinder closed at one end, movably supported within the opening in the casting, and inclosing part of the spring 17. An unoccupied space between the open end of the cylinder and the wall 14 allows the cylinder to move and compress the spring. The casting has a rivet hole 19 through which, and the plate 3, is passed a rivet, two rivet holes 20, 20 in line with the two holes in a flange 8 through which holes are passed rivets

21, 21 which secure the spring carrier to the buffer block. A perforated flange or wing 22 extends rearwardly to a position between the front end of the cheek casting and a flange 4 and rivets 23, 23 are passed through the end of the cheek plate, flange 22, flange 4, and the web of a central stringer or sill. At the lower surface of the spring carrier are two horizontal slots 24, 24 to receive the shanks of bolts 25, 25 and above the slots are spaces to receive the heads 26, 26 of the bolts.

The carry iron consists of a flat casting with longitudinal strengthening ribs 27 at right angles to the web; two perforated plain end surfaces 28, through which perforations are passed the bolts 25, 25, and the nuts 29 force the said surfaces into frictional contact with the under surfaces of the spring carriers; and two perforated wings 30, each of which lies in frictional contact with the under surface of the lower flange of a center sill and to which flange the wing is secured by a bolt 31, as shown. The shank of the draw bar 32 is located between the projecting ends of the chafing cylinders and on curves the draw bar forces the cylinder into the spring carrier and compresses the spring. When the car enters upon a tangent the spring forces the draw bar and coupler head to their normal central positions.

In the example illustrated I have shown the buffer block and the spring carriers made separate and the spring carriers secured to the buffer block by rivets.

What I claim is:

1. The combination with a car end sill, of a buffer block, spring carriers located below the ends of the buffer block, and a carry iron detachably secured to the spring carriers; the buffer block, spring carriers, and carry iron being so disposed as to form an opening for a draw bar; and each spring carrier supporting a helical spring and chafing cylinder, which latter projects into the open space for the draw bar.

2. The combination with a car end sill, of a buffer block, spring carriers located below the ends of the buffer block and secured to the buffer block, and a carry iron detachably secured to the spring carriers; the buffer block, spring carriers, and carry iron being so disposed as to form an opening for a draw bar; and each spring carrier supporting a helical spring and chafing cylinder, which latter projects into the open space for the draw bar.

3. The combination with a buffer block, of recessed or hollow spring carriers located at the lower opposite horizontal edges of the buffer block; and a carry iron detach-

ably secured by bolts at its ends to the spring carriers; the parts being relatively so disposed as to form an opening, and said spring carriers supporting helical springs and chafing elements located within the recesses thereof, the chafing elements projecting from the said spring carriers.

4. The combination with a buffer block, of recessed or hollow spring carriers located at the lower opposite horizontal edges of the buffer block and secured thereto; and a carry iron detachably secured by bolts at its ends to the spring carriers; the parts being relatively so disposed as to form an opening, and said spring carriers supporting helical springs and chafing elements located within the recesses thereof, the chafing elements projecting from the said spring carriers.

5. The combination with a buffer block, having horizontal flanges, of two hollow spring carriers secured to the said flanges by rivets; springs and chafing elements movably supported within the spring carriers; and a carry iron detachably secured to the lower surfaces of the spring carriers.

6. The combination with two flanged center sills, of a buffer block; two spring carriers supporting springs and chafing elements; and a carry iron; each of the said spring carriers having a perforated wing, as 22, which is secured to the web of a center sill by rivets.

7. The combination with two center sills and vertical metallic plates in front of the center sills; of a buffer block; spring carriers; and a carry iron; said spring carriers being secured to the said vertical plates by rivets.

8. The combination with two flanged center sills, of a buffer block, spring carriers, and a carry iron; said carry iron being detachably secured to the spring carrier and the center sills by bolts.

9. The combination with a cast metal buffer block having flanges at the lower edge, of spring carriers, and a carry iron; the spring carriers located below the said flanges of said block and riveted to the flanges being cast with openings, and springs and frictional chafing elements supported within the carriers.

10. The combination with a buffer block, of spring carriers; and a carry iron; said spring carriers having slots and open spaces for the shanks and heads of bolts which secure the carry iron to the spring carriers.

11. The combination with the center sills, of a metallic end sill of less depth than the depth of the center sills, and having a recess at its central portion for the draw bar; a buffer block; spring carriers located below

the lower horizontal edges of the buffer block and at opposite ends thereof; and a carry iron supported by the carriers.

5 12. The combination with the center sills, of a flanged end sill of less depth than the center sills and cut away at its central portion to receive a draw bar; a buffer block; spring carriers both located below the end sill and each in front of a center sill; and a

carry iron; said spring carriers supporting 10 springs and chafing elements.

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

IRA O. WRIGHT.

Witnesses:

C. W. SUMMERS,

C. A. WIENCKE.