Dec. 26, 1922. 1,440,313.

K. F. NYSTROM.

STRIKING PLATE.

FILED FEB. 26, 1921.

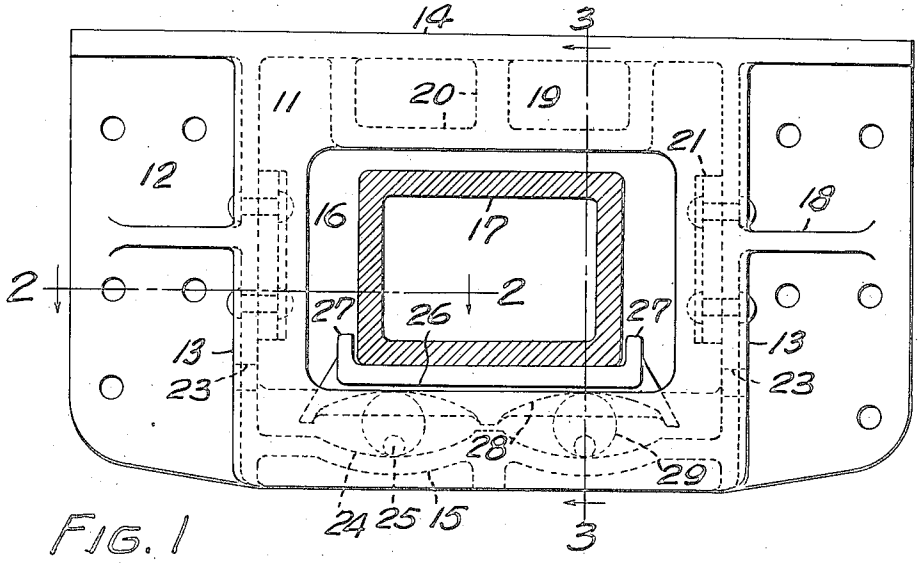


FIG. 1

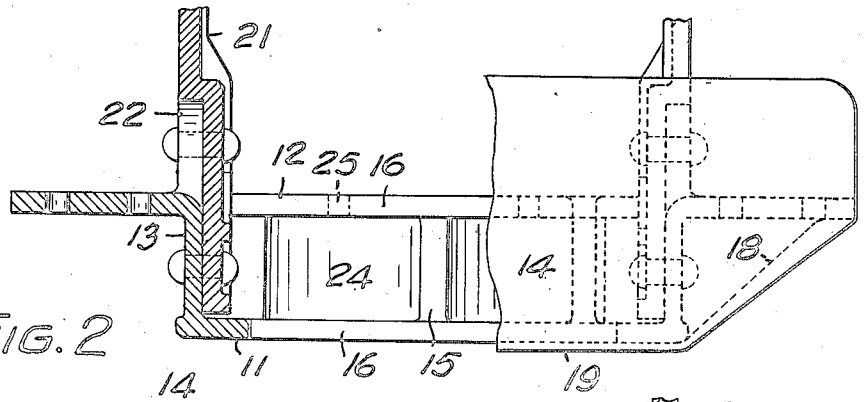


FIG. 2

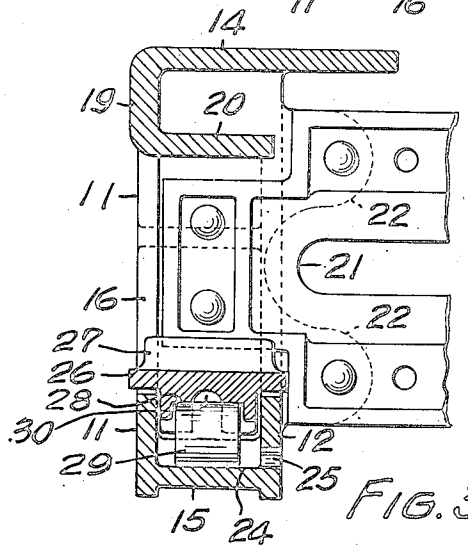


FIG. 3

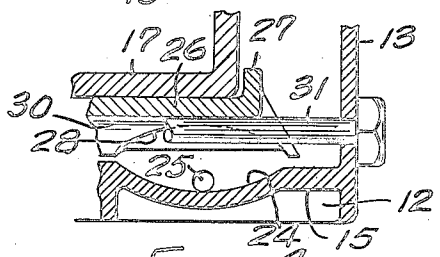


FIG. 4

Inventor
Karl F. Nystrom
By
Attorneys

Patented Dec. 26, 1922. 1,440,313

UNITED STATES PATENT OFFICE.

KARL F. NYSTROM, OF MONTREAL, QUEBEC, CANADA.

STRIKING PLATE.

Application filed February 26, 1921. Serial No. 448,282.

To all whom it may concern:

Be it known that I, KARL F. NYSTROM, a subject of the King of Great Britain, and resident of the city of Montreal, in the Province of Quebec and Dominion of Canada have invented certain new and useful Improvements in Striking Plates, of which the following is a full, clear, and exact description.

This invention relates to improvements in the construction of striking plates for railway cars, and particularly to striking plates combining coupler centering devices, and the principal object of the invention is to provide a strong and simple striking plate.

A further object is to provide a striking plate including a coupler centering means.

A still further object is the provision of means to support a coupler if the centering device becomes broken or inoperative.

At the present time, striking plates and carry irons are as a rule made separate and connected together by bolts. In such constructions, it is not uncommon for the carry iron which is secured under the striking plate to drop off and allow the coupler to drop. Looseness of bolts or other reasons frequently cause the striking plate, which is an inverted substantially U-shaped member to fracture owing to lack of proper supporting connection between the extremities of the depending arms.

According to the present invention, a striking plate is provided which includes as an integral part a carry iron. The coupler is thus ensured of support at all times and the striking plate greatly strengthened. Any suitable form of centering device may be mounted between the carry iron and the coupler. Provision is made for supporting a coupler independently of a centering device in the event that the centering device should fail.

In the drawings which illustrate the invention—

Fig. 1 is a front elevation of the device.

Fig. 2 is a view partly in plan and partly in section on the line 2—2, Figure 1.

Fig. 3 is a sectional view on the line 3—3, Figure 1.

Fig. 4 is a fragmentary sectional view illustrating the supporting of a coupler independently of the carry iron.

Referring more particularly to the drawings, 11 designates the front wall of a striking plate and 12 the back wall, the latter projecting at the sides beyond the front wall. The front and back walls are connected by side walls 13 and a top wall 14 and also by a bottom wall 15. The front and back walls are provided with a substantially rectangular aperture 16, through which the shank 17 of a coupler may pass, the aperture of the front wall being somewhat smaller in the lateral direction than the aperture of the back wall. The top wall projects rearwardly of the back wall and serves to form brackets or braces between the side and back walls. The side and back walls are further supported and connected by bracket ribs 18. The lower part of the front and back walls and the bottom wall 15 form between them a carry iron integral with the remainder of the striking plate. The lower or carrier part of the plate is not intended to withstand the shock of coupling cars and is therefore set back from the upper part of the front wall, which is thickened as shown at 19 and is further supported by horizontally and vertically disposed ribs 20. As previously stated, the opening in the back wall is larger in the longitudinal direction than the opening in the front wall and, in fact, the opening extends from side wall to side wall to permit the attachment of the side walls to the forward end of a draft arm 21. Lugs 22 are provided in rear of the back wall for attachment to the draft arm and are substantially continuations of the side walls, as clearly seen in Figure 2. The side walls are provided at any suitable distance from their lower ends with apertures 23, the apertures on opposite sides of the device being in alignment.

The bottom wall 15 is designed to serve as the trackway of a gravity centering device for the coupler and, for this purpose, is provided with one or more portions 24 curved transversely of the device. Drainage openings 25 may be provided in either of or both of the back and front walls. A carriage 26 is located under the coupler and is provided with upstanding ribs 27 at its ends between which the coupler fits and which compel the carriage to move transversely with the swing of the coupler. The lower

surface of the carriage is provided with curved tracks 28 corresponding with the tracks 24 but inverted relatively thereto. Rollers 29 are disposed between the tracks 24 and 28 and form a supporting connection between the carriage and the bottom wall 15. By the action of gravity, these rollers seek the lowest points of the tracks 24 and the highest points of the tracks 28, with the result that the carriage tends always to assume a predetermined position with relation to the striking plate, in which position the coupler is centered, as is well known. The carriage 26 may be provided on its lower surface with a transverse groove 30 adapted to receive a bolt 31 passing through the apertures 23 and connecting the side walls 13. Such a bolt would be inserted only in the event of a breakage of the bottom wall 15 or collapse of one or more of the rollers 29 or even a breakage of the carriage. The bolt when inserted will form a rigid connection between the side walls, to support the same against breakage by excess lateral movement of the coupler and also to serve as an emergency carry iron for the coupler. As previously stated, the holes 23 may be located at any suitable elevation, that is to say, they may be located as in Figure 4 to position a bolt 31 under the carriage 30 or may be located somewhat higher up, as shown in Figure 1, so as to position a bolt immediately under the coupler, so that the coupler may be supported in proper position without either carriage or rollers. If the dimensions of the striking plate permit, the side walls may be provided with two sets of apertures at different levels.

The operation of the device is obvious from the foregoing description and the drawings and requires no description.

The advantages may be briefly outlined as follows:

The formation of the striking plate and carry iron as an integral whole greatly strengthens the striking plate and simplifies and cheapens the manufacture by reducing the number of parts. The integral construction furthermore ensures suitable support for the coupler except in the event of breakage. The provision of the emergency bolt holes provides for the insertion of a bolt to replace a broken carrier part both as regards its carrying function and its function as a connection between the arms of the striking plate. This emergency provision also enables the disadvantages and danger attendant on a broken centering device to be easily and quickly repaired until the car can be shopped.

Having thus described my invention, what I claim is—

1. A device of the class described, comprising a striking plate and carry iron formed integral, said carry iron having a pocket to receive a centering device, and an emergency carry iron insertable in said pocket on removal of the centering device.

2. A device of the class described, comprising a striking plate having depending side members and a carry iron formed integral with said side members, said carry iron being pocketed to receive a centering device, said side members being apertured for the passage of a member to support a coupler, upon failure of either the centering device or the carry iron.

3. A device of the class described, comprising a striking plate and carry iron formed integral, a support for a centering device connected to the carry iron and an emergency carry iron for use on removal of the centering device.

4. A device of the class described, comprising a striking plate including depending side members, a carry iron formed integral with said side members, said carry iron being formed to constitute part of a gravity centering device, and an emergency carry iron for use upon failure of the centering device or normal carry iron formed to extend between the depending side members of the striking plate and to be supported therefrom.

5. A device of the class described, comprising a striking plate including depending side members, a carry iron formed integral with said side members, said carry iron being formed to constitute part of a gravity centering device and said side members being formed for the supporting engagement of an emergency carry iron.

6. A device of the class described, comprising a striking plate, and carry iron formed integral, supporting means for a gravity centering device connected to the carry iron portion of the integral structure, said integral structure being formed to receive and support an emergency carry iron in the event of failure of the gravity centering device, of the supporting means therefor or of the carry iron portion of the structure.

In witness whereof, I have hereunto set my hand.

KARL F. NYSTROM.