July 14, 1953 F. H. SWINT 2,645,363

COUPLER OPERATING MECHANISM

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Fig. 1

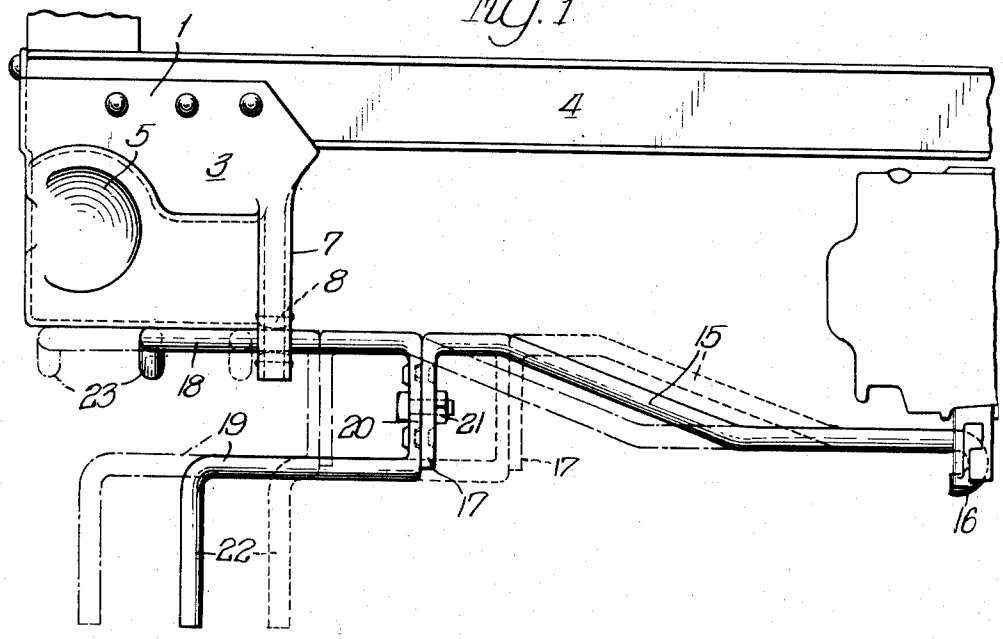
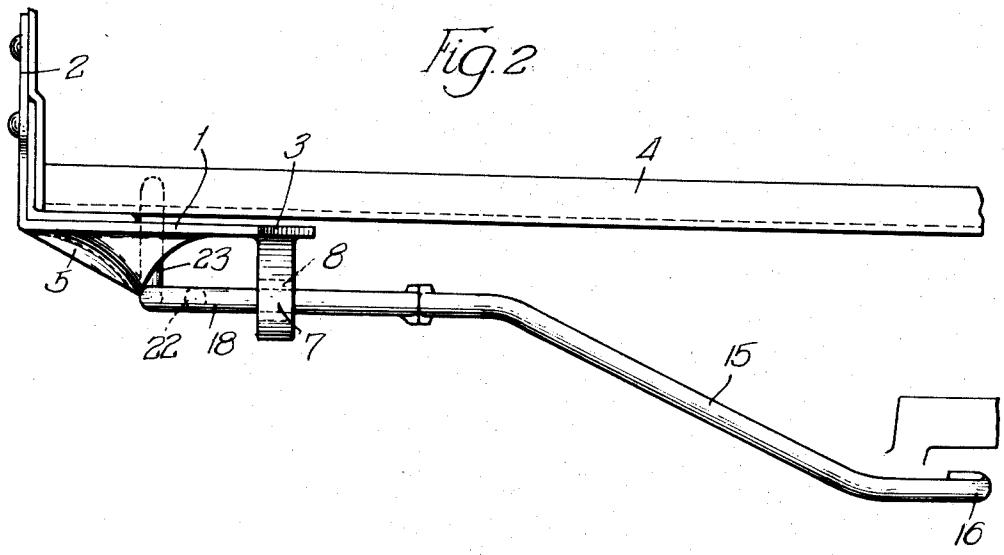


Fig. 2



INVENTOR.
Franklin H. Swint,
BY
Sabin & Bronson.
atty.

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Fig. 3

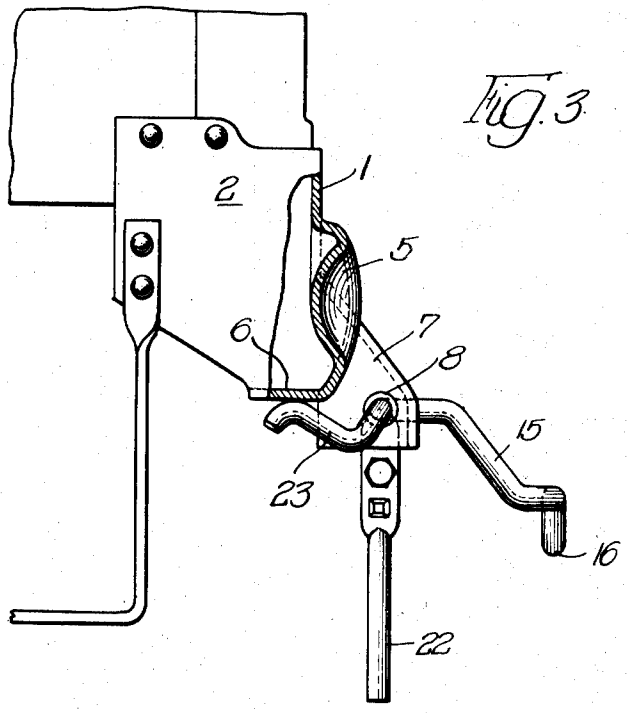
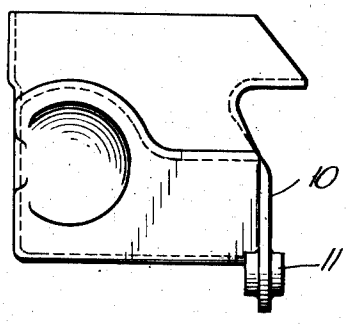


Fig. 4



INVENTOR.
Franklin H. Swint,
BY
Sabin C. Bronson
atty.

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COUPLER OPERATING MECHANISM

Franklin H. Swint, Hammond, Ind., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application May 19, 1951, Serial No. 227,200

6 Claims. (Cl. 213—166)

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This invention relates to improvements in coupling devices for railway car couplers, and has for an object the provision of a simple and efficient device for operating the rotor of a bottom operated car coupler.

Heretofore a special bracket has been provided to support the outer end of the coupler operating rod which bracket has been attached to the ordinary push pole pocket bracket attached to the lower corner of most railway freight cars, or located closely adjacent thereto on the end sill of the car. It is a further object of this invention to so form a push pole bracket that it will also provide a means for supporting the outer handle of the coupler operating rod, and thus eliminate the bracket usually provided therefor.

A further object of the invention is the provision of a two piece operating rod for such an installation, which rod is of novel construction and provides a stop to prevent rotation of said rod in one direction beyond a certain point.

Other objects and advantages of the invention will appear in the following description thereof.

Referring now to the accompanying drawings forming part of this application and wherein like reference characters indicate like parts.

Fig. 1 is a side elevation of the device as applied to the end sill of a railway freight car.

Fig. 2 is a top plan view of Fig. 1.

Fig. 3 is an end view of Fig. 1.

Fig. 4 is a view, similar to Fig. 1, of a modified form of bracket.

In the drawings the push pole pocket bracket is shown generally at 1 and comprises two flanges at substantially right angles to each other so as to fit around a lower corner of a railway car side and end sill. Flange 2 of said bracket is secured to the car side sill and flange 3 is secured to the car end sill 4. In this instance the flange 1 has a push pole pocket 5 formed integrally therewith, and the lower margin of flange 3 is turned inwardly, as at 6, forming a stop surface for purposes hereinafter described. Flange 3 also has a side marginal flange 7 integrally formed therewith, which flange extends outwardly and then is bent backwardly to form a pair of spaced parallel sides. This flange 7 also extends below the flange 6, as shown in Fig. 3, and the parallel sides of which are formed with registering openings in which is welded a contour spool 8 providing a bearing for the outer end of the coupler operating rod. It is obvious that, for the purposes of this invention, it is not necessary that flange 1 have formed therein a push pole pocket, for the flange 7 may be formed in a bottom corner

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band and accomplish similar results insofar as supporting the coupler operating rod is concerned.

In Fig. 4 the push pole pocket bracket is provided with a flange 10 extending at right angles thereto and is similar to flange 7 except that it is not bent backwardly to form two spaced sides, as in the above described modification. In the present instance shown in Fig. 4, the contour spool 11 is welded into a hole formed in flange 10 so that it functions exactly as the spool 8 in providing a bearing for the operating rod.

The operating rod is formed in two parts for convenience in assembly and comprises an inner part 15 provided with a hooked end 16 for engaging the eye of a coupler rotor. The rod is formed of round material, and the outer end is turned at substantially right angles forming an arm 17, which arm is flattened, as shown in Fig. 1.

The outer part of the arm is likewise formed of round material into substantially U-shape comprising spaced arms 18 and 19 connected by a flattened portion 20, which portion 20 is similar to and bolted to the flattened portion 17 by means of a bolt 21. In the forming of the flattened portions 17 and 20, registerable nibs and depressions are formed so that when bolted together said registering nibs and depressions prevent rotation of the two parts of the operating rod on bolt 21. Arm 19 is provided with a right angle bend forming a handle 22 for rotating the operating rod on its axis of rotation to uncouple the coupler. The arm 18 passes through the contour spool bearing 8 and is of considerable length as it must slide in said bearing to compensate for the maximum lateral movements of the coupler to which the hooked end 16 of the operating rod is attached. The end of the arm 18 is provided with a right angle bend forming a back stop lever 23 formed into somewhat ogee shape, and which lever projects under the flange 6 of the bracket and stops rotation of the rod in a clockwise direction, as viewed in Fig. 3.

When the device is in the assembled position shown in Fig. 1, a rotation of the handle in an anti-clockwise direction will operate the coupler rotor to unlock the coupler. When the handle is released it will return by gravity to the position shown in Fig. 3; the back stop lever 23 preventing any further clockwise movement of the lever.

I claim:

1. An uncoupling mechanism for car couplers comprising a two part uncoupling rod including an inner part adapted at one end for connection

to a car coupler for operation of said coupler upon rotation of said rod in one direction and having an angular bend at the other end, an outer part including spaced parallel arms and a portion connecting one end of said arms, said portion being secured to said angular bend of said inner part, the other end of one of said arms provided with a laterally turned portion forming a stop adapted to prevent rotation of said rod in one direction beyond a certain degree, and the other of said arms forming a handle to rotate said rod on its axis of rotation.

2. An uncoupling mechanism for car couplers comprising a two part uncoupling rod including an inner part adapted at one end for connection to a car coupler for operation of said coupler upon rotation of said rod in one direction and having an angular bend at the other end, an outer part including spaced parallel arms and a portion connecting one end of said arms, said portion being secured to said angular bend of said inner part, the other end of one of said arms provided with a laterally turned portion forming a stop adapted to prevent rotation of said rod in one direction beyond a certain degree, the other of said arms forming a handle to rotate said rod on its axis of rotation, and a bottom corner band having a bracket projecting outwardly therefrom forming a supporting means for said one of said arms.

3. An uncoupling mechanism for car couplers comprising a two part uncoupling rod including an inner part adapted at one end for connection to a car coupler for operation of said coupler upon rotation of said rod in one direction and at the other end having a laterally turned portion, an outer part including spaced arms and a portion connecting one end of said arms, said portion secured to said laterally turned portion, the other end of one of said arms provided with a laterally turned portion, the other of said arms forming a handle to rotate said rod on its axis of rotation, and a bracket forming a supporting means for said one of said arms, the bottom of said bracket being in the path of rotation of said second mentioned laterally turned portion to form a stop therefor when the uncoupling mechanism is installed upon a car.

4. An uncoupling mechanism for car couplers comprising a rotatable operating rod, adapted for connection at its inner end to a car coupler,

and to operate said coupler upon rotation of said rod in one direction, the outer end of said rod including a journal portion adapted for slidable and rotatable support by a bracket attached to a car, said journal portion having at its outer end a laterally turned part underlappingly engageable with said bracket to form a stop therefor when the uncoupling mechanism is installed upon a car, the inner end of said journal portion also having a laterally turned part having a handle portion issuing therefrom and extending parallel to said journal portion.

5. An uncoupling mechanism for car couplers comprising a rotatable operating rod, adapted for connection at its inner end to a car coupler, the outer end of said rod including a journal portion adapted for slidable and rotatable support by a bracket attached to a car, said journal portion having a laterally turned part underlappingly engageable with said bracket to form a stop therefor when the uncoupling mechanism is installed upon a car, said outer end of said rod also including an arm, parallel to said journal portion, said arm terminating in a handle portion bent at right angles thereto providing means to rotate said journal portion to operate said coupler.

6. A supporting bracket for a railway car coupler operating mechanism, said bracket comprising a fabricated plate formed to provide angular flanges so as to be applicable to a bottom corner of a railway car, the lower margin of one of said flanges being turned inwardly to form a stop surface in the path of rotation of an operating mechanism part to stop rotation of said mechanism in one direction, said one flange also having an outturned side margin extending below said inturned margin and having an opening therethrough, the axis of said opening being substantially parallel with said one flange and below said inturned margin, said opening adapted to rotatably and slidably support the outer end of a car coupler operating mechanism.

FRANKLIN H. SWINT.

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