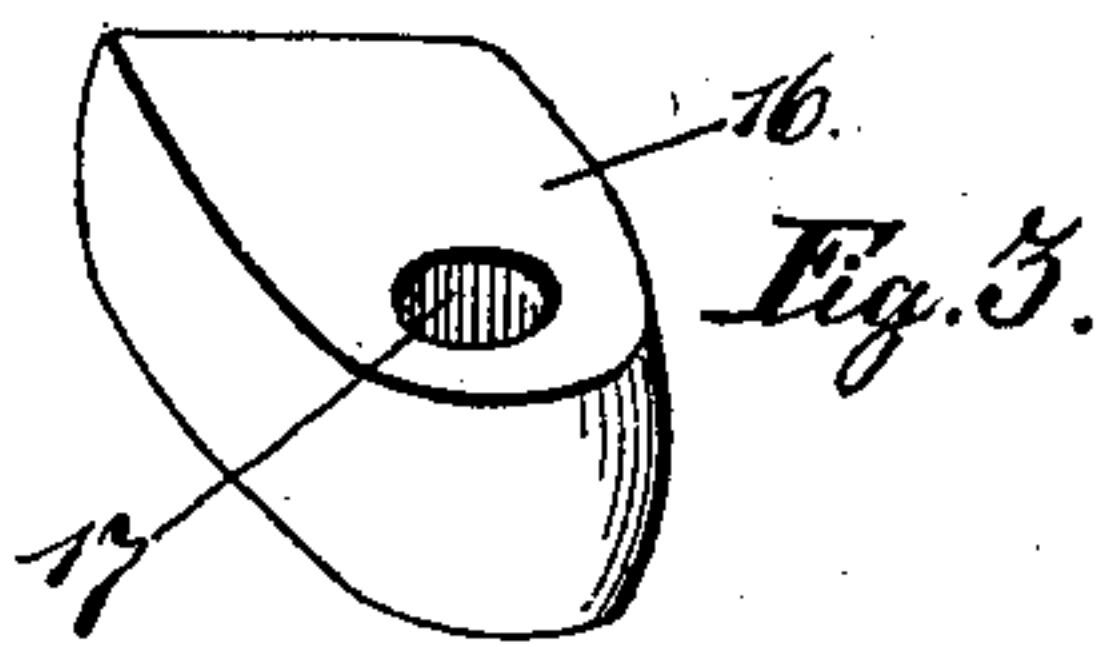
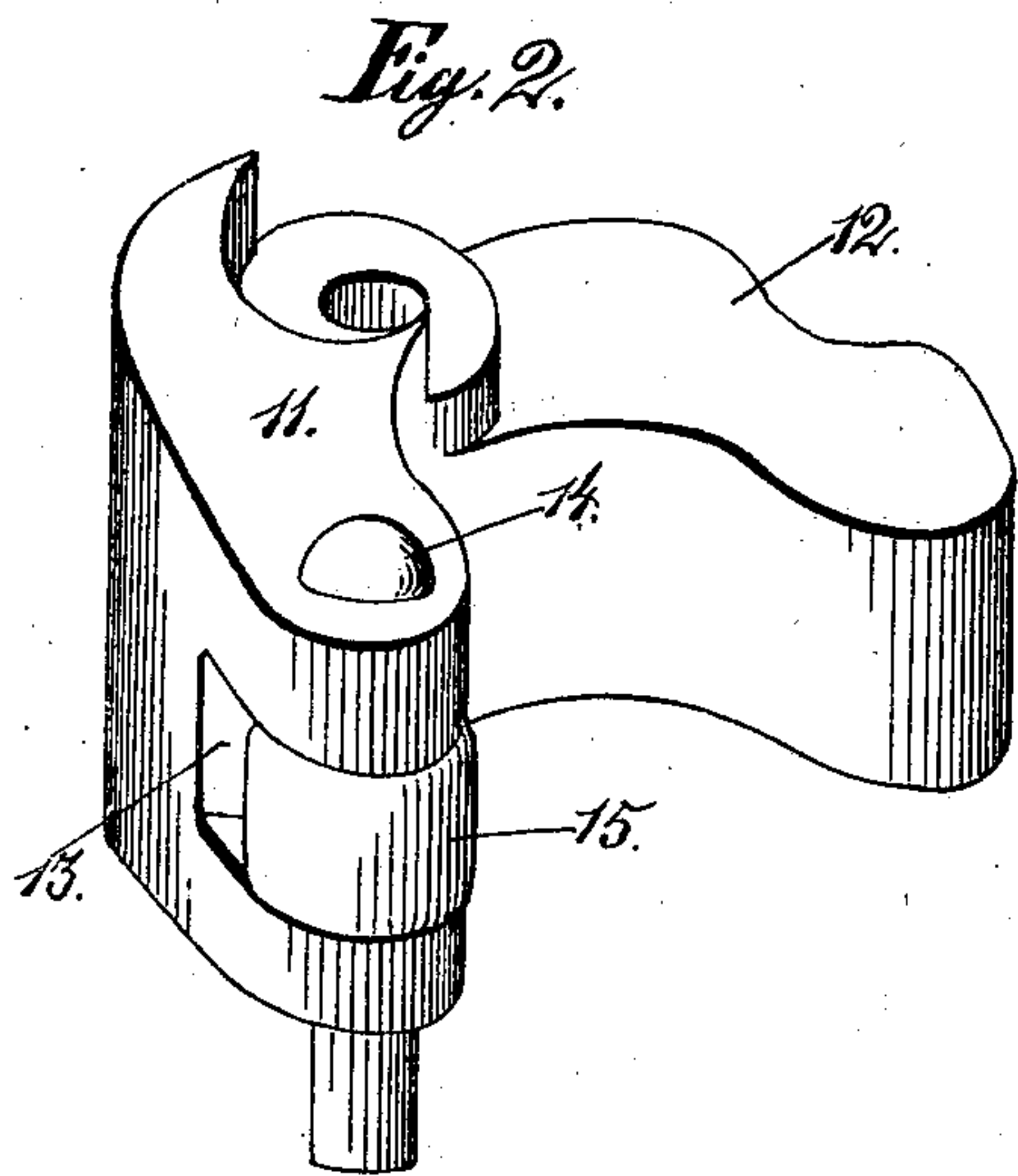
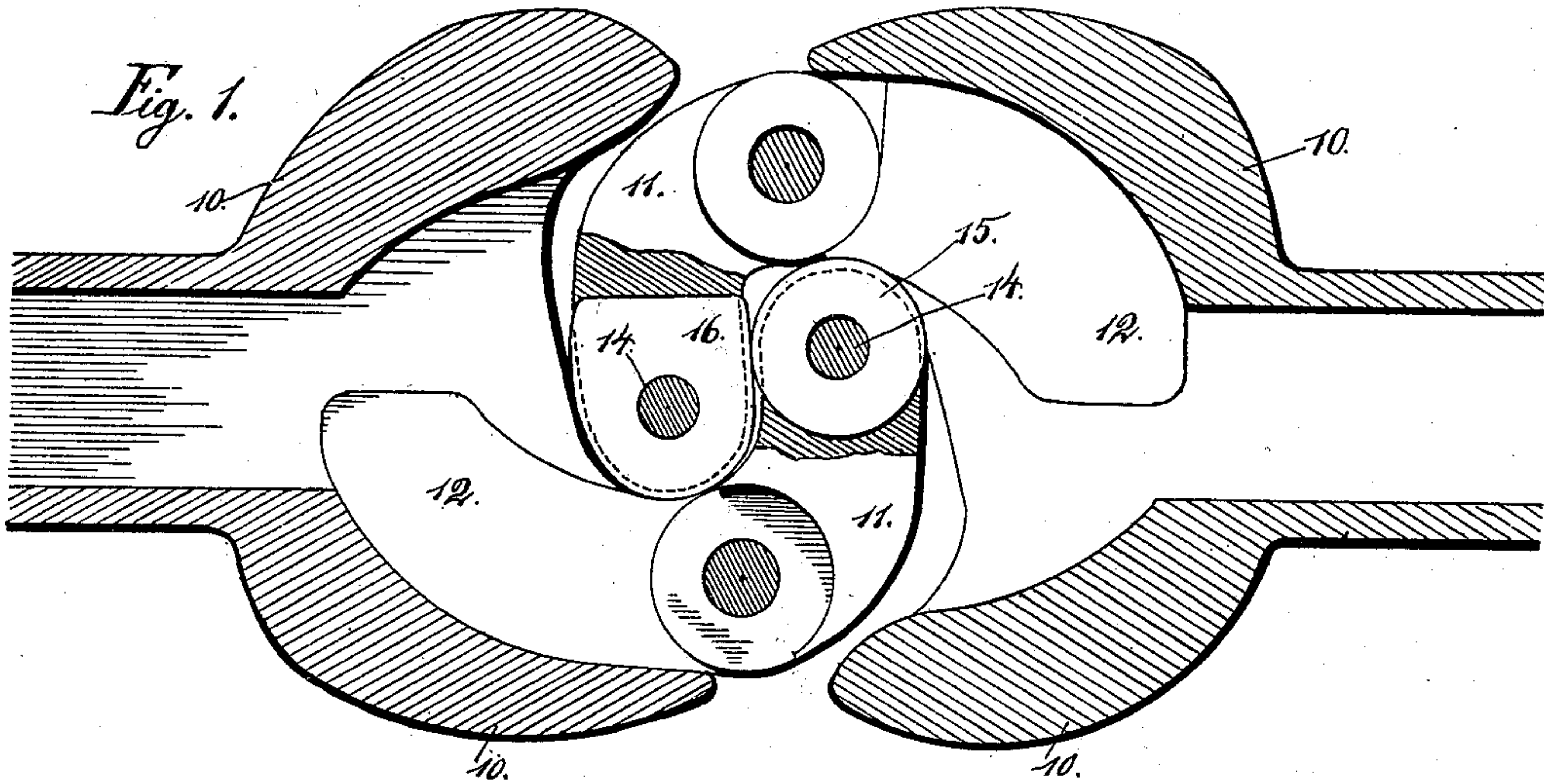


No. 720,686.

PATENTED FEB. 17, 1903.

W. F. GOULD.
WEARING DEVICE FOR CAR COUPLINGS.
APPLICATION FILED JULY 26, 1901.

NO MODEL.



Witnesses:
Henry Manger
W. S. Erwig.

Inventor: W. F. Gould.
by Orwig & Lane Attys.

UNITED STATES - PATENT - OFFICE.

WILLIAM F. GOULD, OF DES MOINES, IOWA.

WEARING DEVICE FOR CAR-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 720,686, dated February 17, 1903.

Application filed July 26, 1901. Serial No. 69,846. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. GOULD, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Wearing Devices for Car-Couplers, of which the following is a specification.

My invention relates to and consists in certain improvements upon the vertical jaws of car-couplers of the "Master Car-Builders" type. Vertical jaws of car-couplers of this class are usually provided with a cavity at their horizontal center, said cavity being intersected by a vertical pin-opening, whereby an ordinary coupling-link may be received in the cavity and the coupling-pin passed through the vertical opening and through the link in the cavity, so that car-couplers of this class may be used in connection with an ordinary link-and-pin car-coupler. It has been found in practical use that in car-couplers of this class the wearing-surfaces of the jaws are comparatively small, and hence after a short period of constant use the vertical jaw becomes worn to such a degree as to necessitate its removal and substitution of a new vertical jaw. Hence considerable expense is incurred by reason of the replacement of these parts.

My object is to provide in a vertical jaw of this class a wearing device to bear all of the friction occasioned in the use of the car-couplers, which wearing device may be readily, quickly, and easily replaced without the necessity of replacing the entire vertical jaw. Hence a considerable saving in the use of this car-coupler is effected.

A further object is to provide such wearing device and to so arrange and construct it relative to the vertical jaw that the link-and-pin coupler may be connected with the vertical jaw in the same manner as though the wearing device were not used.

A further object is to provide a wearing device of this class that may be arranged so as to bring new surfaces of the wearing device into position for use, thus prolonging the life of the wearing device.

A further object is to provide an improved wearing-surface for use in devices of this class, which wearing-surface consists of two

metals of different kinds cast integral, so that a more durable wearing device is provided than is possible where only one kind of metal is used.

A further object is to provide a wearing-surface for the vertical jaw and coupler of this class, which wearing-surface is substantially convex, so that the wear will take place first in the center of the wearing-surface, and after the coupler has been used the wearing-surface will become enlarged.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows a horizontal sectional view of two couplers connected with each other as in practical use, each provided with a vertical jaw, part of which is broken away, one jaw showing the roller friction device and the other showing the reversible friction device. Fig. 2 shows in perspective a vertical jaw detached and having a roller friction device therein. Fig. 3 shows in perspective the reversible block friction device.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate that portion of the draw-bar shown.

The numeral 11 indicates the vertical jaw, and 12 the rear extension thereof. In the vertical jaw is a link-receiving opening 13, and this link-receiving opening is intersected by a vertical opening to receive a pin 14.

My preferred form of wearing device comprises a metal roller 15, cylindrical in shape and of a diameter slightly greater than the thickness of the vertical jaw. This roller is provided with a central opening to receive the pin 14, and its vertical dimensions are such as to permit it to enter the cavity or opening 13 and freely rotate therein.

The reference-numeral 16 indicates a reversible wearing-block. This wearing-block is of such dimensions longitudinally and vertically as to accurately fit into the link cavity or opening 13, and it is of such dimensions transversely as to project a slight distance beyond the outer and inner faces of the vertical jaw. It is provided with an opening 17 to receive

the pin 14, and its outer and inner faces are convex. Both the roller and wearing-block aid in pushing the vertical jaw, as required, to aid in coupling cars.

5 In practical use and assuming that two couplers, each provided with my improved friction-rollers 15, were connected as required for use it is obvious that all of the wear will fall upon the rollers 15, and these rollers will
10 turn during use in such manner as to provide a new wearing-surface, so that no wear can fall upon the vertical jaw proper until the entire periphery of the rollers has been worn down enough to permit the vertical jaws of
15 two couplers to engage. When such wear has taken place, the pins 14 are detached and new rollers 15 substituted for the worn ones. This obviously can be done at a very slight expense in comparison to the expense of sub-
20 stituting new vertical jaws. It is obvious, further, that when either of the rollers is used the device may be used in connection with a link-coupler by simply removing the roller and admitting the link into the cavity
25 occupied by the roller, using the same pin 14 for coupling the link to the vertical jaw. These pins may, if desired, be made long enough so that the roller may be placed on top of the vertical jaw and the pin passed through
30 the roller and also through the link. Hence when the link is removed the roller may be easily replaced.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—
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1. In a car-coupler, the combination of a vertical jaw having a horizontal link-open-

ing therein and also having a vertically-arranged intersecting pin-opening, of a wearing device of such size as to be capable of
40 passing through the link-opening and provided with a vertical pin-opening and having a number of wearing-surfaces, each of which is substantially the same distance from the pin-opening whereby the wearing device may
45 be adjusted within the link-opening to present new wearing-faces.

2. In a car-coupler, the combination of a vertical jaw, having an opening, of a wearing device detachably and reversibly sup-
50 ported in the opening and having a number of wearing-surfaces substantially equidistant from its point of attachment, said wearing-surfaces each being designed to engage the wearing-surfaces of a mating coupler when
55 properly adjusted in the vertical jaw.

3. In a car-coupler, the combination of a vertical jaw, a roller mounted in the wearing-face of the vertical jaw, whereby the rollers of two mating couplers may engage each
60 other.

4. In a car-coupler, the combination of a vertical jaw, having a horizontal link-opening and a vertical intersecting pin-opening, of a roller mounted in the link-opening with
65 its periphery projecting slightly beyond the wearing-face of the vertical jaw and a pin passed through the pin-opening in the vertical jaw and through the roller.

WILLIAM F. GOULD.

Witnesses:

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