

No. 612,470.

Patented Oct. 18, 1898.

W. D. WIDDERS.  
CAR COUPLING.

(Application filed Apr. 18, 1898.)

(No Model.)

Fig. 1.

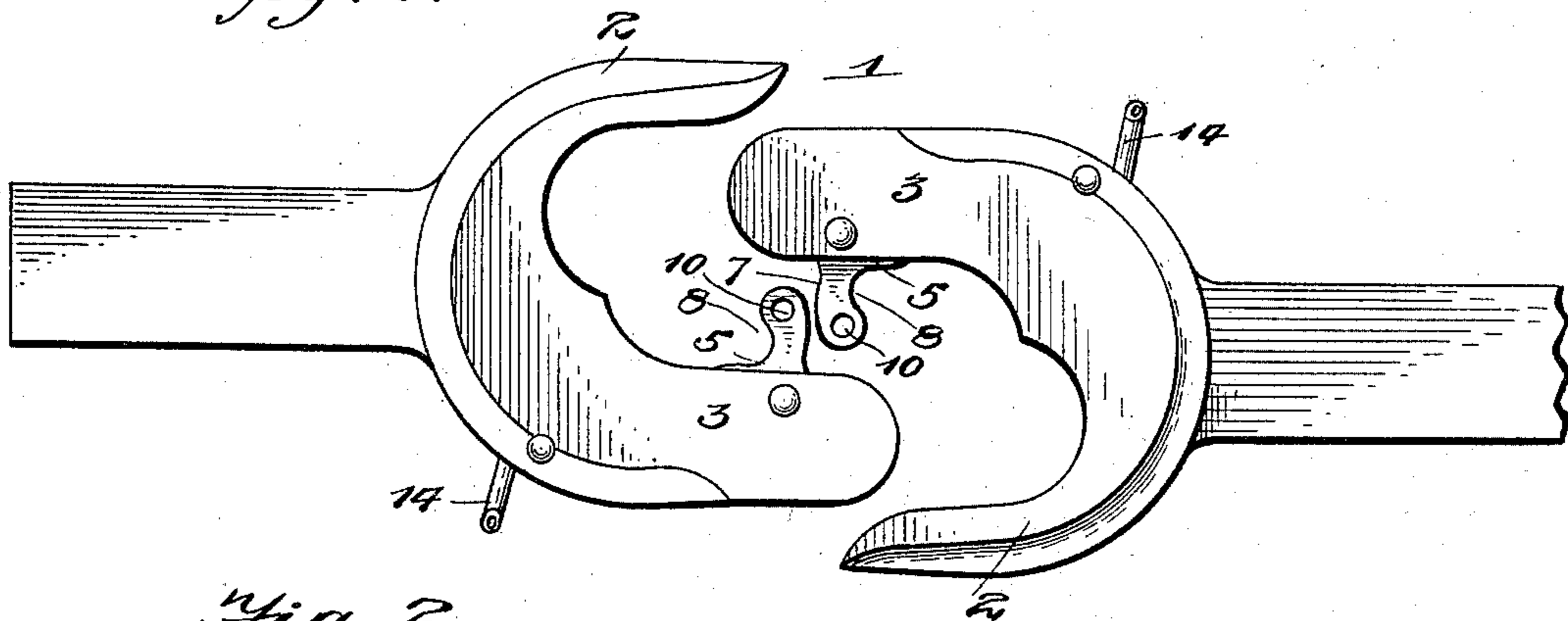


Fig. 2.

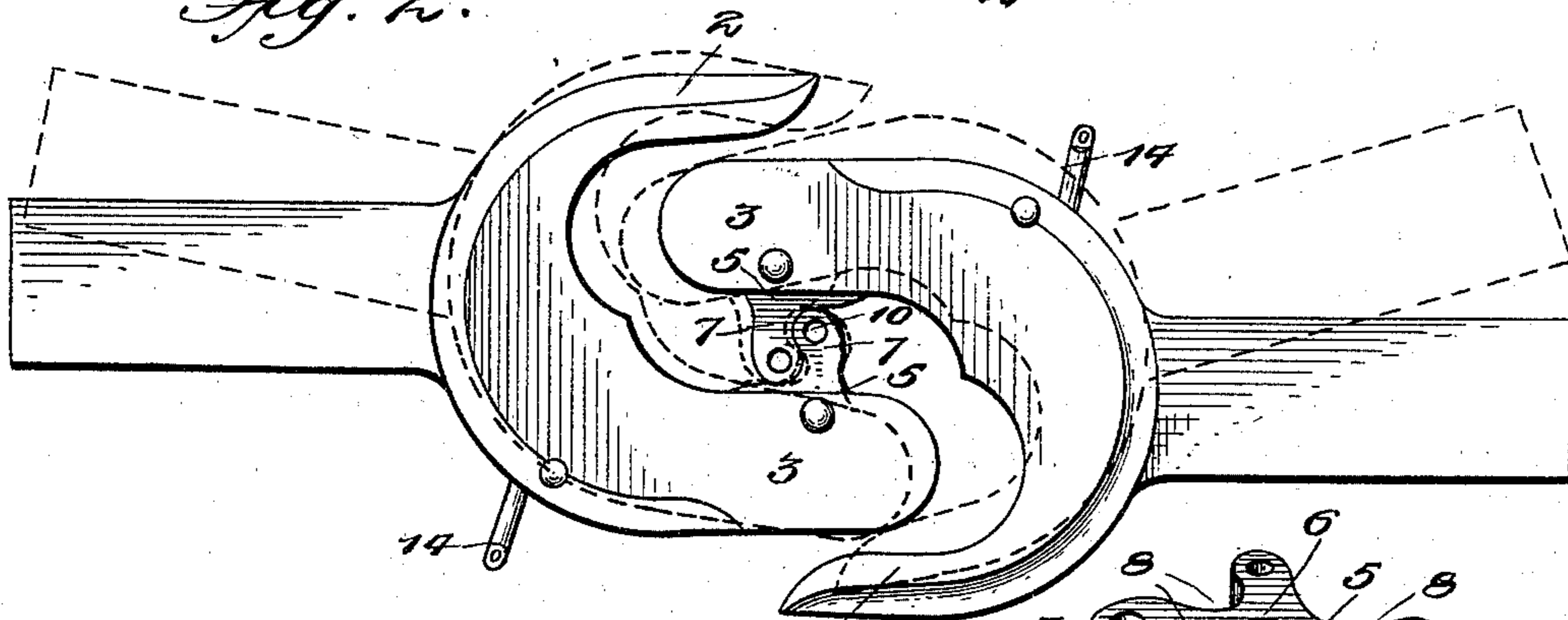


Fig. 3.

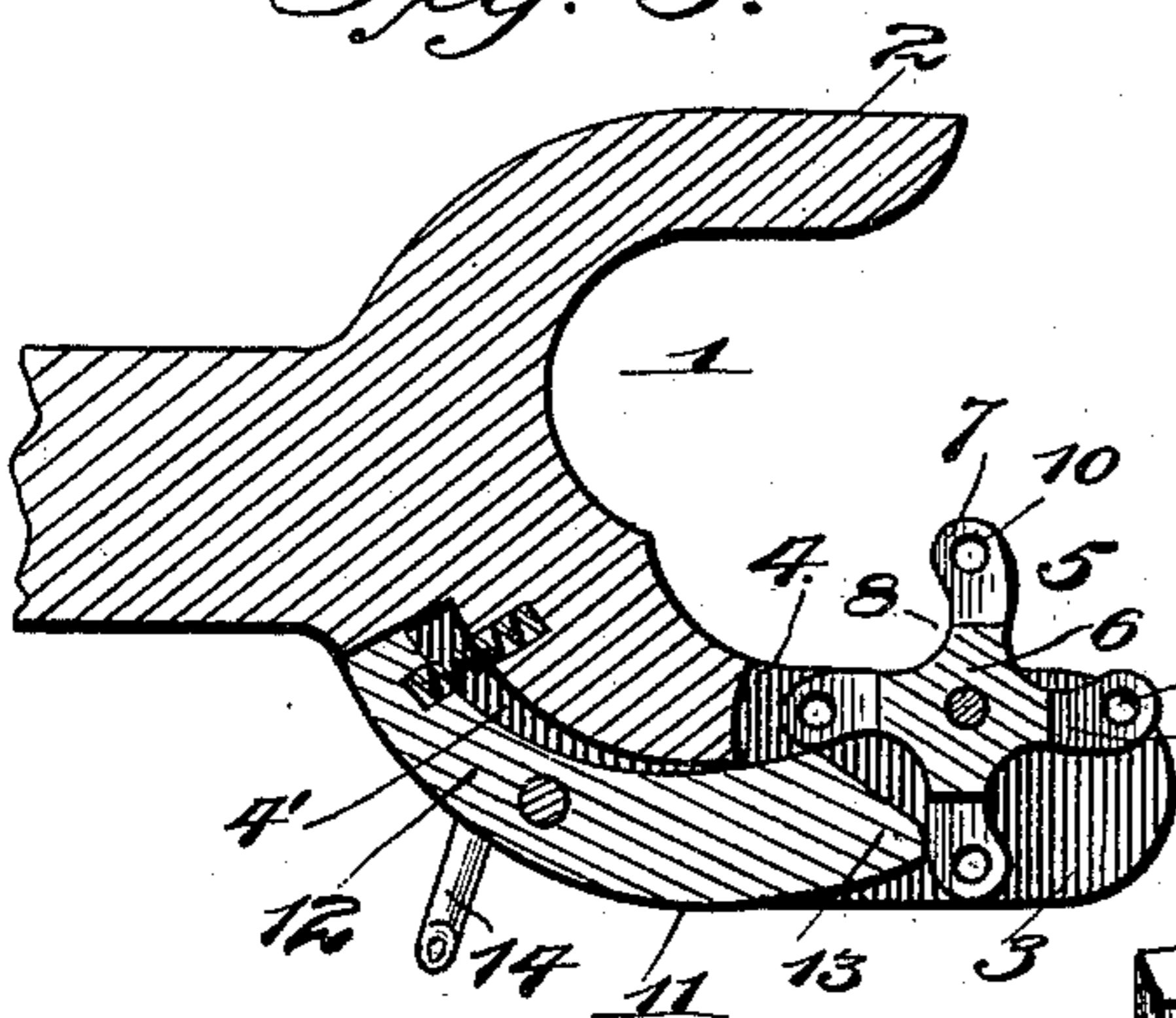


Fig. 4.

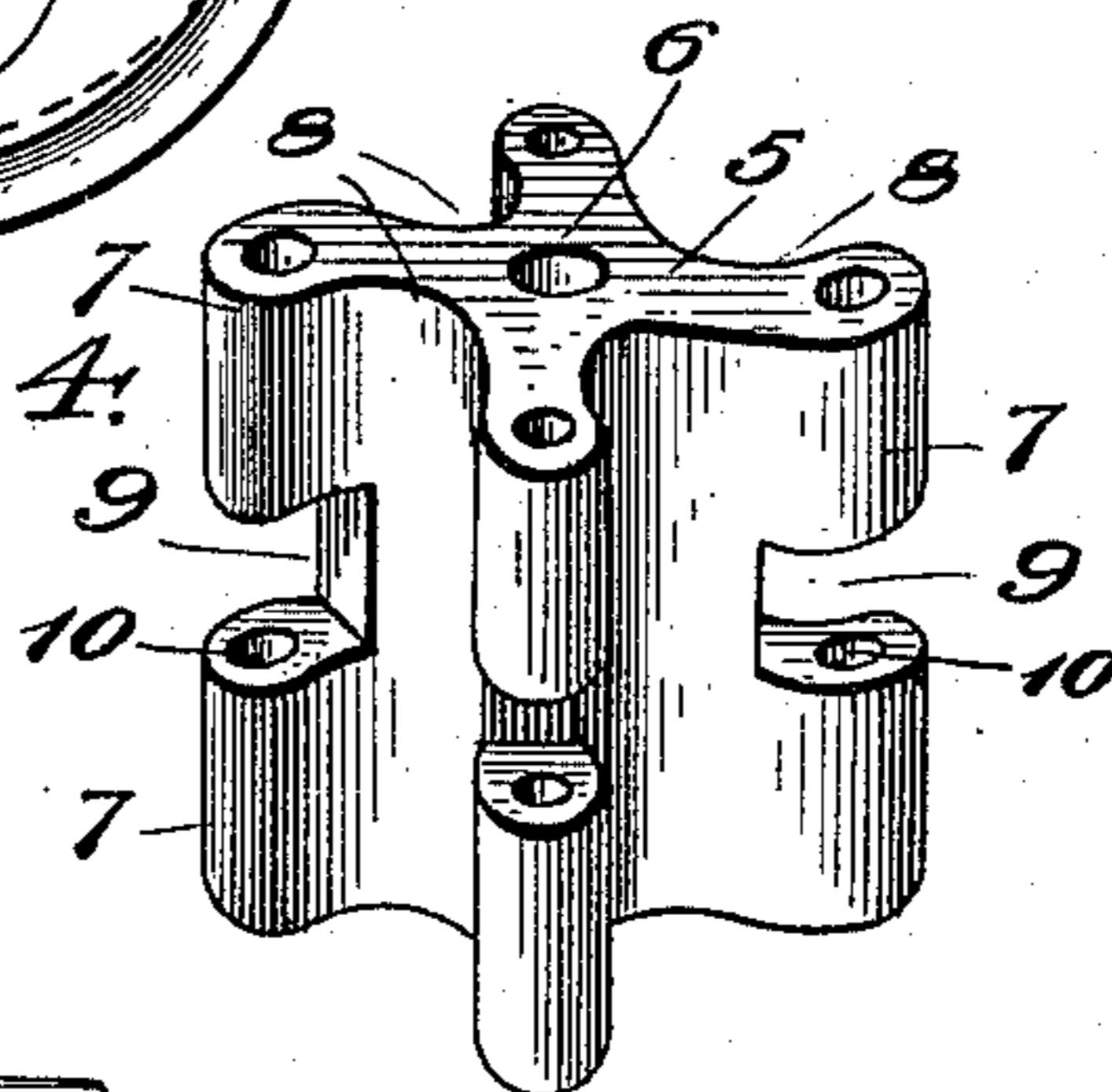
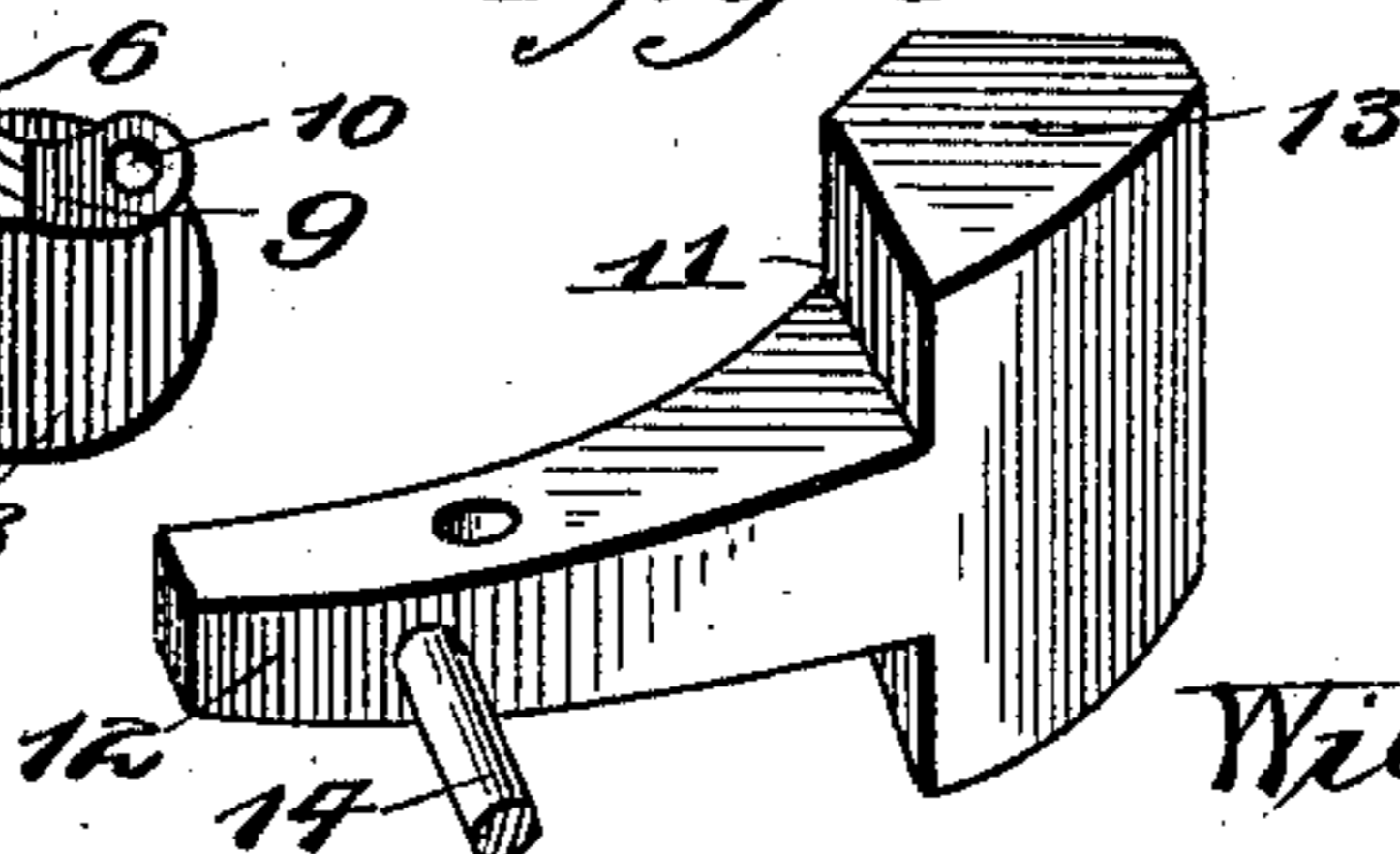


Fig. 5.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM D. WIDDERS, OF FAIRLAND, INDIAN TERRITORY.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 612,470, dated October 18, 1898.

Application filed April 18, 1898. Serial No. 678,021. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM D. WIDDERS, a citizen of the United States, residing at Fairland, in the Cherokee Nation, Indian Territory, have invented certain new and useful Improvements in Car-Couplers; and I do 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.

The invention has relation to car-couplers, and more particularly to that class of couplers of the "star-wheel-detent" type.

The object of the invention is to provide a car-coupler of this type that shall be simple in construction, durable in use, and comparatively inexpensive of production; one that will couple and uncouple under all conditions, whether on a straight or curved track; one that is always set for coupling, and one that may be coupled with cars employing either the "Janney" or the link-and-pin types of couplers.

With these objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of my improved couplers, showing them in the act of being coupled. Fig. 2 is a similar view showing them coupled and showing in dotted lines the wide range of lateral movement allowed. Fig. 3 is a transverse sectional view through the draw-head and star-wheel detent and its locking-dog. Fig. 4 is a detail perspective view of one of the star-wheel detents, and Fig. 5 is a similar view of one of the locking-dogs.

In said drawings, 1 denotes the draw-heads, each of which may be cast in one solid piece. Each draw-head is provided with two rigid jaws 2 and 3, respectively, the latter of which is provided with an opening 4, having a narrow slot 4' at the rear thereof and communicating therewith. Pivoted between the ears of the opening 4 is a star-wheel detent 5, which consists of a hub 6, having radial wings 7, slightly hooked, as shown at 8, and provided with link-slots 9 and pin-openings 10.

11 denotes the releasing-dog, the shank 12 of which is pivoted in the slot 4' of the draw-head and the head 13 of which engages and locks the star-wheel against rotation. A stud 14 projects outward from the shank of the

dog and is adapted to be connected with any suitable mechanism for operating the dog. As the particular kind of mechanism forms no part of my invention I have not deemed it necessary either to illustrate or describe it.

In operation as the two draw-heads come together the web of one star-wheel will strike the other and pass by the same, one of the star-wheels revolving upon its pivot to permit the other one to enter between the jaws of the draw-head. In this position the two heads of the coupler will be secured together and cannot separate until the releasing-dog is actuated. When this is done, the draw-heads may be separated.

The Janney type of car-coupler may be engaged with my improved coupler, and by slotting the webs of the star-wheel detents and forming pin-holes therein I may make a couple with a car having the old form of pin-and-link coupler.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be apparent without requiring an extended explanation.

The coupler consists of but few parts, which are strong and durable and not liable to get out of order, and owing to its extreme simplicity the couplers may be manufactured at comparatively small cost.

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

In combination, the draw-head formed with the integral parallel jaws 2 and 3, the jaw 3 being formed with an opening 4 and a communicating slot 4', the star-wheel 5 journaled in the opening 4 and formed with the hooked radial wings 7 8, each provided with the link slots 9 and the pin-openings 10, the dog 11 fulcrumed in the opening 4 and slot 4' and having its enlarged head 13 projecting into the path of the wings on said star-wheel and having its spring-actuated shank 12 provided with a lateral stud 14 extending through said slot 4', substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WM. D. WIDDERS.

Witnesses:

W. A. CROCKETT,  
W. M. WILSON.