

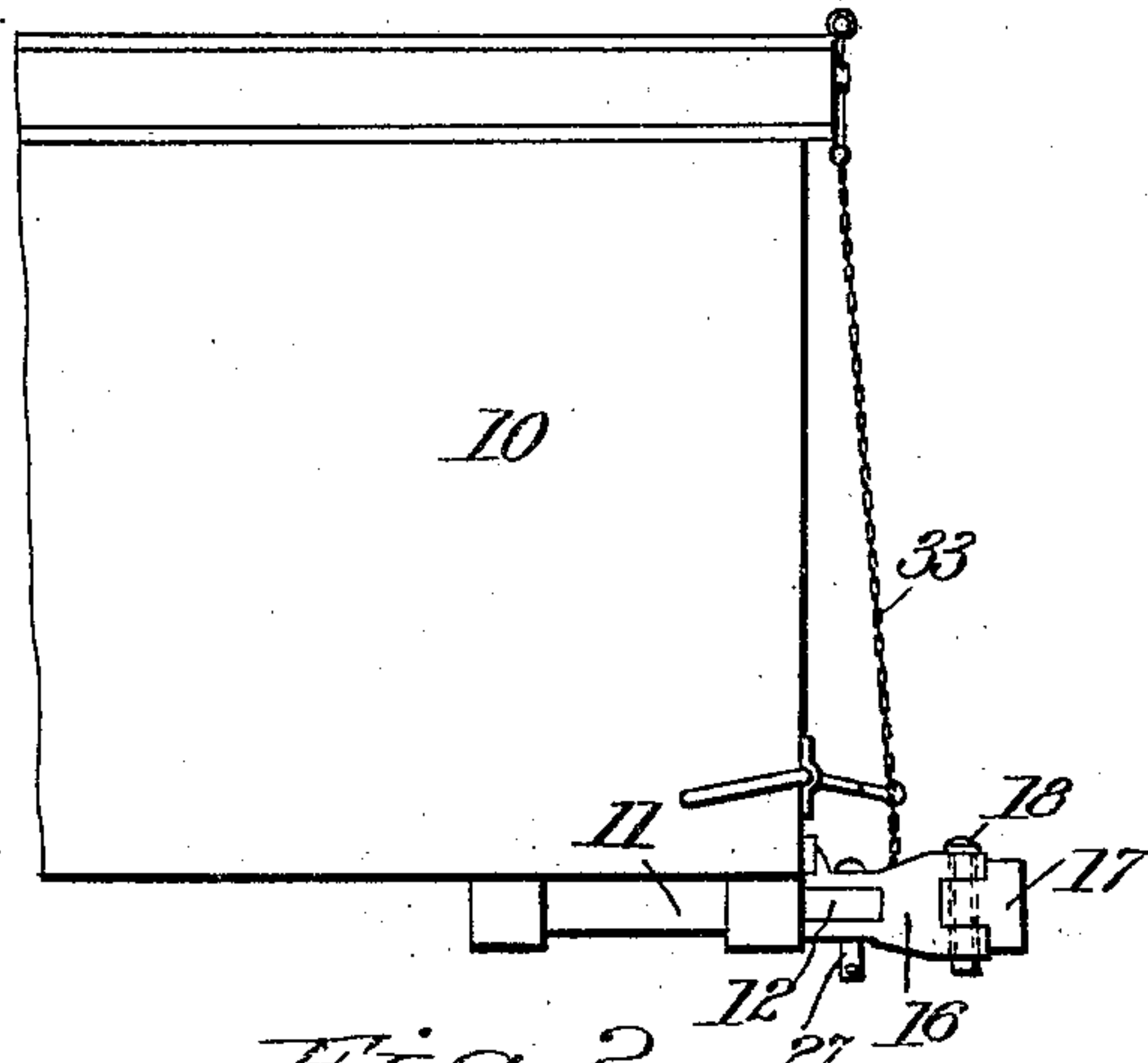
No. 819,388.

PATENTED MAY 1, 1906.

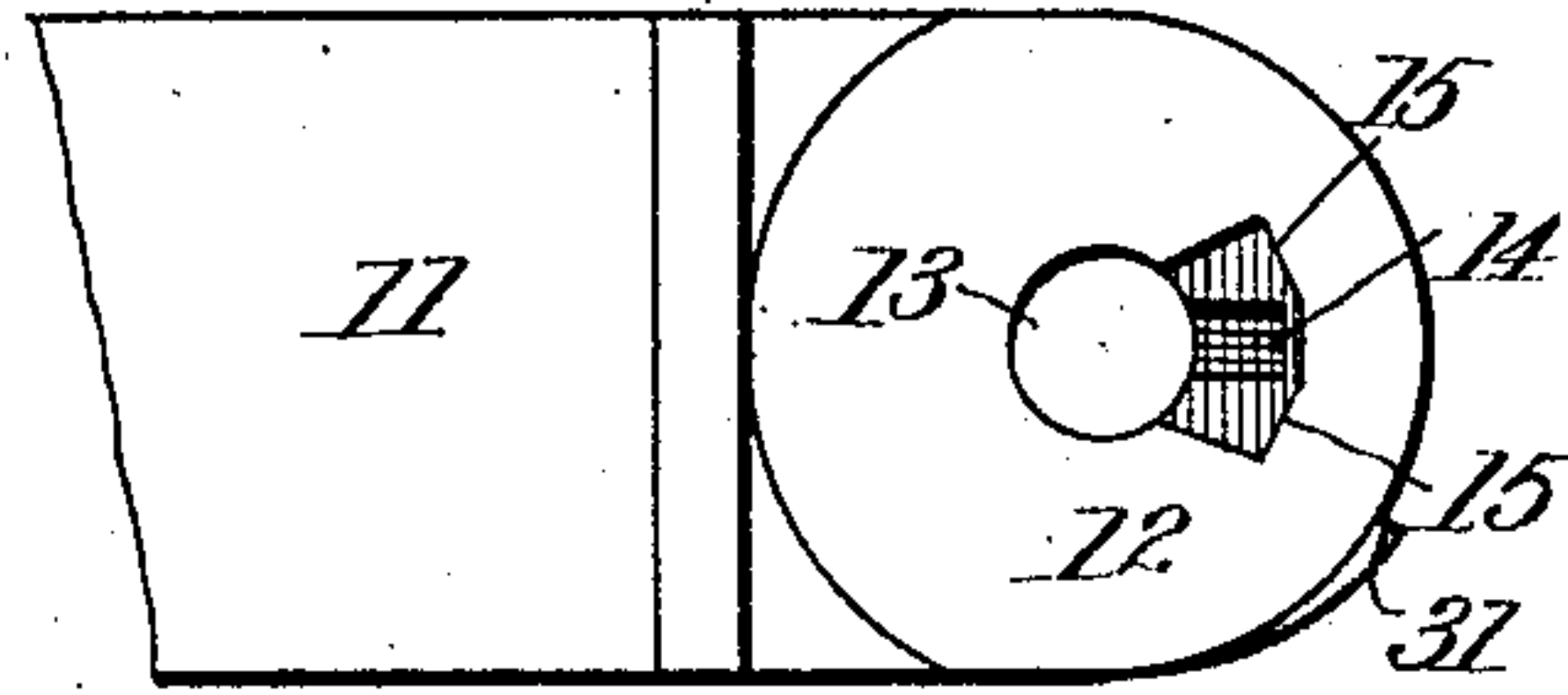
J. F. WAGNER.  
CAR COUPLING.

APPLICATION FILED FEB. 7, 1906.

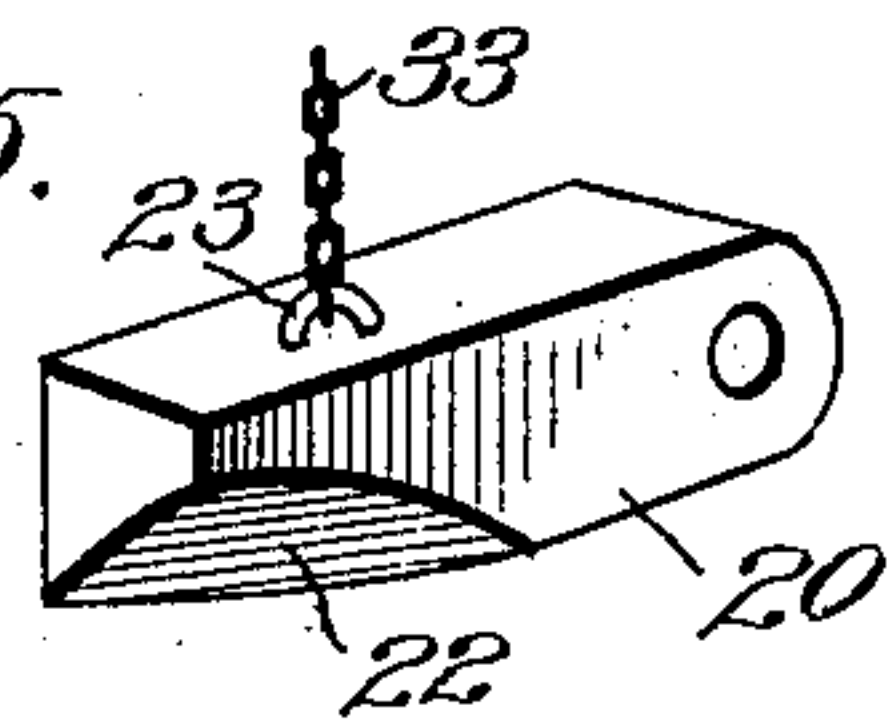
*Fig. 1.*



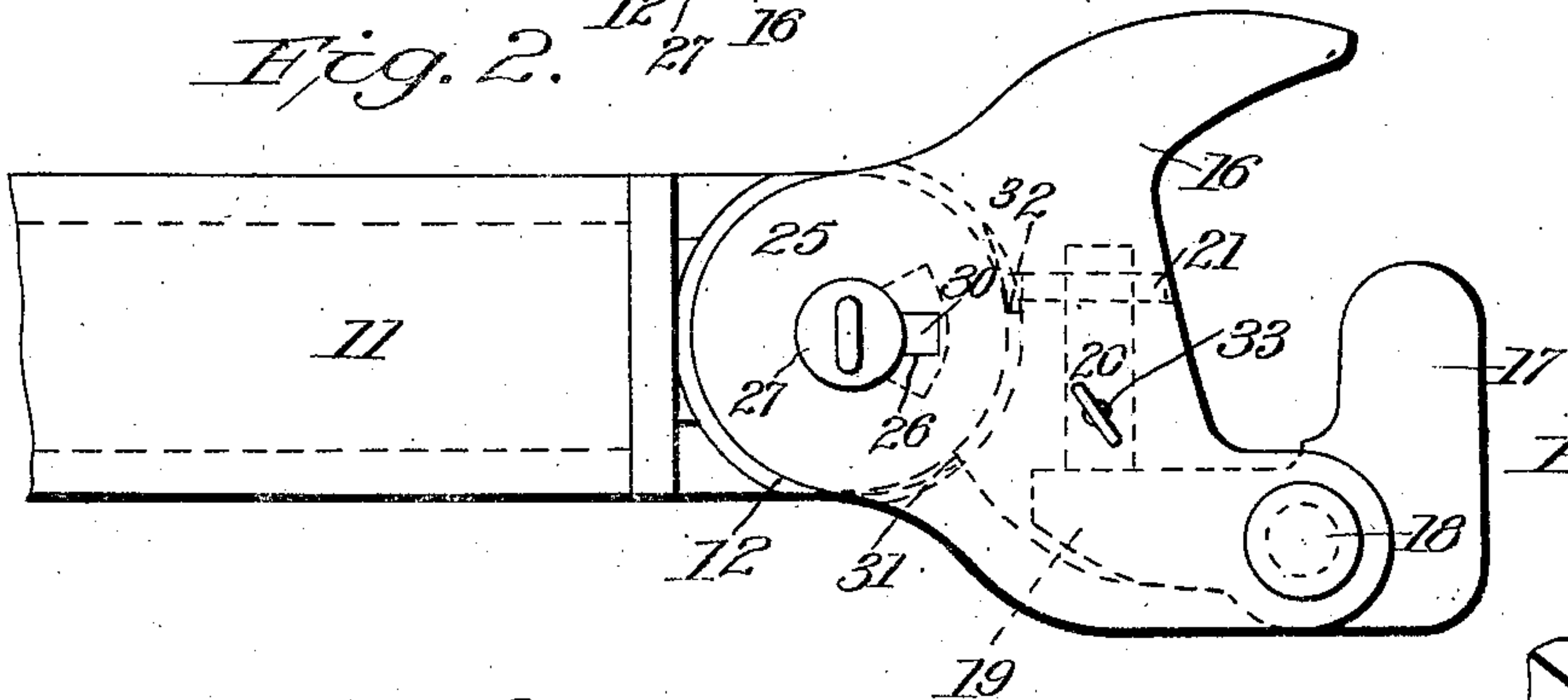
*Fig. 4.*



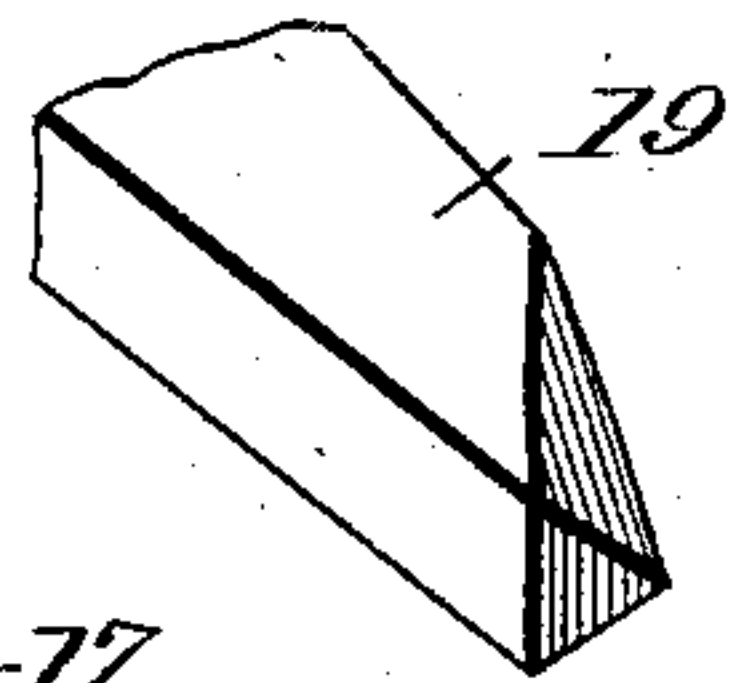
*Fig. 5.*



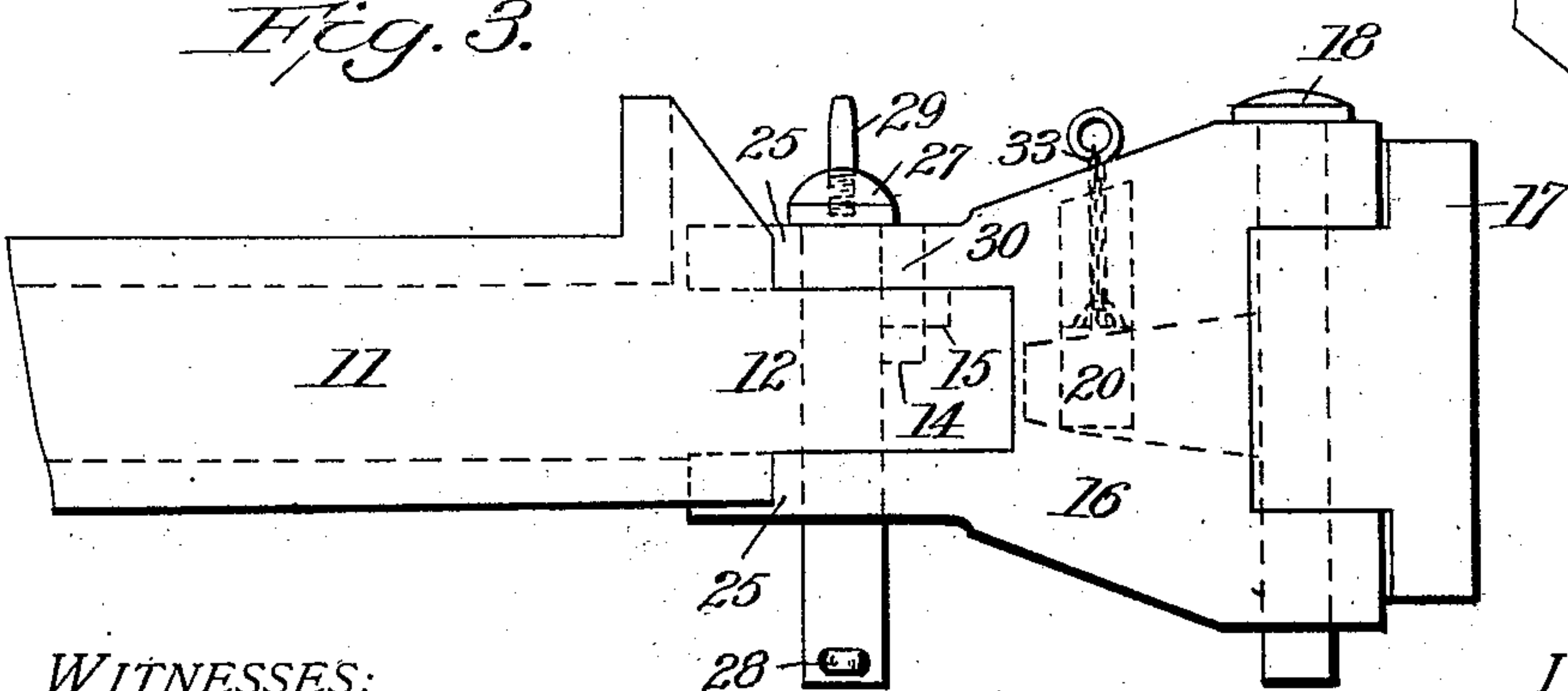
*Fig. 2.*



*Fig. 6.*



*Fig. 3.*



WITNESSES:

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INVENTOR

BY

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# UNITED STATES PATENT OFFICE.

JOHN F. WAGNER, OF TAMAQUA, PENNSYLVANIA.

## CAR-COUPLING.

No. 319,388.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed February 7, 1906. Serial No. 299,923.

*To all whom it may concern:*

Be it known that I, JOHN F. WAGNER, a citizen of the United States, residing at Tamaqua, in the county of Schuylkill and State of Pennsylvania, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to car-couplings, and has particular reference to the connection between the draw-bar and the coupler-head. Usually the draw-bar and coupler-head are integral or are so connected that the coupler-head is always presented in a direct line forward or in alignment with the shank or draw-bar, so that when it is desired to couple two cars together while on a curved track it is practically impossible to get the two coupler-heads together. In such case it is frequently customary to push the cars to a straight portion of the track before coupling. When the coupler-heads are yieldingly connected with the draw-bars or shanks and have springs for holding them in central position, it is still practically impossible for a brakeman to move a coupler-head sufficiently to one side against the force of such springs so as to effect a coupling of the cars while on a curve.

The object of this invention is to provide a coupler-head pivotally connected to the shank or draw-bar and so arranged that it may be left free to be swung laterally relatively to the front end of the shank or draw-bar, and yet adapted to be locked in alignment with the bar, so that there will be no play of the head when the cars are coupled and moving. By this means a brakeman may swing a coupler-head sufficiently to one side to enable the coupler-heads to automatically engage each other when on a curve and leave the couplings to be locked in a straight line as soon as the cars are drawn onto a straight track.

To these ends the invention consists in the construction and combination of parts substantially as herein described and claimed.

Of the accompanying drawings, Figure 1 represents a side elevation of one end of an ordinary form of box-car equipped with a draw-bar and coupler-head constructed according to my invention. Fig. 2 is an enlarged plan view of the draw-bar and coupler-head. Fig. 3 is a side elevation of the same.

Fig. 4 is a detail plan view of the forward end of the draw-bar and its tongue. Fig. 5 is a perspective view of the detent for locking the swinging hook of the coupler-head. Fig. 6 is a perspective view of the rear arm of the swinging hook which is engaged by the detent shown in Fig. 5.

Similar reference characters indicate the same or similar parts throughout the several views.

A box-car of an ordinary form is indicated at 10, to which the draw-bar 11 is connected in any well-known or preferred manner. The front end of the draw-bar 11 is formed with a tongue or flat lug 12, preferably having its front end semicircular, as clearly shown in Fig. 4. Said tongue 12 is formed with a hole or eye 13 for the pivot-pin hereinafter described, and the upper surface of said tongue adjacent to the hole 13 is formed with a recess 14, preferably rectangular in form and which is herein referred to as a "locking-recess." The tongue is also formed with recesses 15 at the sides of the recess 14 and of less depth than said recess 14. Said recesses 15 are hereinafter referred to as "supporting-recesses."

The coupler-head 16, which may be of any type, but is shown as of a form having a swinging hook 17, secured to the coupler-head by a pivot 18, is pivotally connected with the front end of the draw-bar or shank 11, as hereinafter more fully described. In the form illustrated in the drawings the rear arm 19 of the swinging hook 17 is beveled on one side, as shown in Fig. 6, to cooperate with the beveled side 22 of the detent 20, pivoted at 21 in the coupler-head. This cooperation of the beveled sides takes place when two cars are being automatically coupled in a well-known manner and which need not be further described herein. The detent 20 is provided with a handle or an eye 23 to enable the said detent to be swung upward in order to unlock the hook 17 when the cars are to be uncoupled.

The rear of the coupler-head 16 is formed with upper and lower flanges or ears 25, between which the tongue 12 of the draw-bar fits. The upper ear 25 is formed with a locking-recess 26 adjacent to its hole for the pin 27, said recess 26 corresponding in size and form with the recess 14 in the tongue 12 of



the draw-bar. The pivot-pin 27 extends through the hole 13 of the tongue 12 and through similar holes in the flanges 25 of the coupler-head and is provided with a stop 28 (see Fig. 3) to prevent said pin 27 from being entirely removed. Said pin 27 is also formed with a handle or eye 29, by which it may be lifted. The pin 27 is also formed with a dowel or wing 30, projecting from one side adjacent to its upper end or head, said dowel or wing being of a shape and size to fit the locking-recesses 26 and 14 of the coupler-head and tongue 12, respectively. Said dowel or wing is of a length or vertical height so as to practically reach the bottom of the recess 14 when the parts are in the position shown in Fig. 3.

In the operation of the device the coupler-head will be normally held rigidly in alinement with the draw-bar or shank by the dowel or wing 30 of the pivot-pin 27, being in engagement with the locking-recesses 14 and 26, and when the pin 27 and its dowel or wing are in such position the coupler-head will be held as rigidly in position as though it were integral with the shank or draw-bar; but if two cars are to be brought together and coupled while on a curved piece of track, so that they will not automatically couple with the heads in the position of alinement shown in Fig. 2, the brakeman or other employee will simply lift the pin 27 and swing the necessary coupler-head to one side, letting the dowel or wing 30 rest upon the bottom of one of the supporting-recesses 15, or, if it should be necessary to swing the head very much to one side the said dowel or wing 30 might be permitted to rest upon the upper surface of the tongue 12 beyond a recess 15. When the head has been so brought to a lateral position that the coupling may be effected, the employee leaves the pin 27 resting as described, and after the cars have been coupled and have moved onto a straight piece of track, so as to swing the head or heads that have been temporarily displaced back into alinement with the draw-bar or draw-bars, the pin or pins 27 that have been lifted will automatically drop to the position shown in Fig. 3 with the wing or wings 30 locking the parts in alinement, after which the draw-bars and their coupler-heads will remain in alinement and rigidly so. Of course when coupling is to be effected on a straight piece of track the operation will be the same as heretofore practiced, there being then no occasion to swing a coupling-head laterally. To prevent the coupler-head when it has been turned somewhat sidewise, as described, from being thrown too far around by the impact of the car that is to be coupled thereto, I may employ a stop-shoulder 31 on the front of the tongue 12 and a cooperating stop-shoulder 32, (see dotted lines in Fig. 2,) formed on the adjacent face of the coup-

ler-head. It will be understood, however, that in the absence of such means as just described for preventing the coupler-head from being swung too far to either side the end walls of the recesses 15 would perform the same function, for the wing or dowel 30 fits the recess 26 of the coupler-head, and therefore would be swung thereby until stopped by contact with the end wall of one of the recesses 15. As a means for conveniently uncoupling the cars when the brakeman is on the roof of a box-car, such as shown in Fig. 1, I may employ a chain 33, leading from the handle or eye 23 of the detent 20 to a suitable operating device supported in an elevated position on the car.

It is to be understood that when cars are to be coupled while on a curve it is not always necessary that the brakeman shall first swing the coupler-head to one side. If the pin 27 is held elevated to a sufficient distance so as to remove the dowel or wing 30 from the locking-recess 14, the coupler-head will be free to be swung sufficiently sidewise by the impact of the coupler of another car being brought against it. It is also to be understood that I do not limit myself to the particular type of coupler-head illustrated in the drawings, since practically any form of automatic coupler may be substituted for the one illustrated.

Having now described my invention, I claim—

1. A car-coupling comprising a draw-bar and a coupler-head pivotally connected thereto, means for rigidly locking the head in alinement with the bar, and means for limiting lateral swing of the coupler-head when the locking means are out of engagement.

2. A car-coupling comprising a draw-bar and a coupler-head, a pivot-pin connecting them and having a dowel or wing, the said bar and head having locking-recesses to receive said dowel or wing.

3. A car-coupling comprising a draw-bar having a forwardly-projecting tongue formed with a hole and having a locking-recess adjacent said hole, a coupler-head having a rearwardly-extending portion formed with a hole and overlapping the tongue of the said bar and having a recess similar to the locking-recess of said bar, and a pivot-pin having a dowel or wing adapted to fit the recesses of the overlapping parts.

4. A car-coupling comprising a draw-bar and a coupler-head pivotally connected thereto and having locking-recesses normally in alinement with each other, and a dowel or wing projecting from the pivot member and adapted to engage said locking-recesses.

5. A car-coupling comprising a draw-bar having a tongue at its forward end provided with a hole and a recess adjacent said hole and formed with supporting-recesses at the



sides of the first-mentioned recess, a coupler-  
head having rear flanges or ears and having a  
locking-recess, and a pivot-pin adapted to  
connect the flanges of the coupler-head with  
5 the tongue of the draw-bar and having an in-  
tegral dowel or wing substantially as and for  
the purpose described.

In testimony whereof I have affixed my  
signature in presence of two subscribing wit-  
nesses.

JOHN F. WAGNER.

Witnesses:

SAMUEL R. BEARD,  
FRANKLIN SCHULTZ.