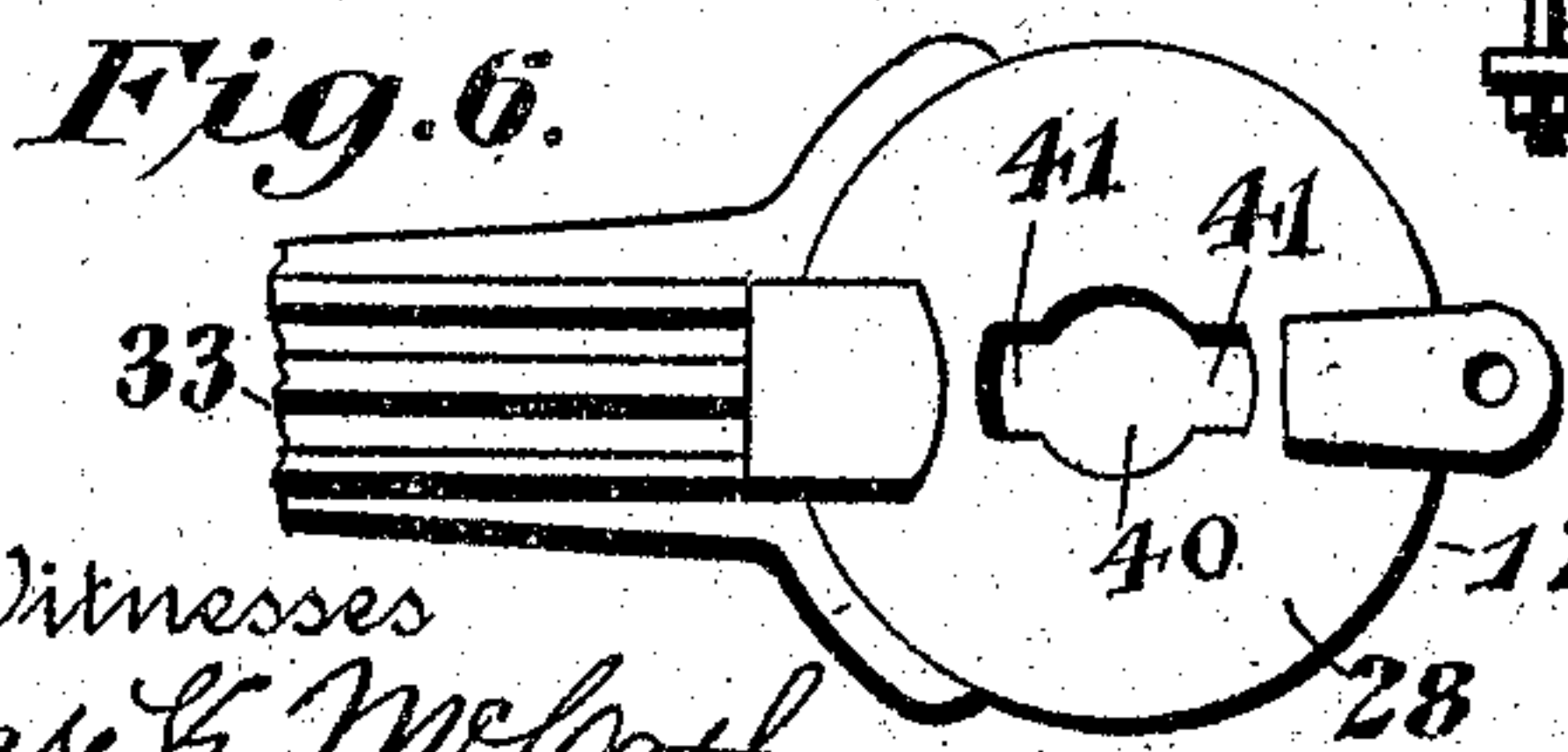
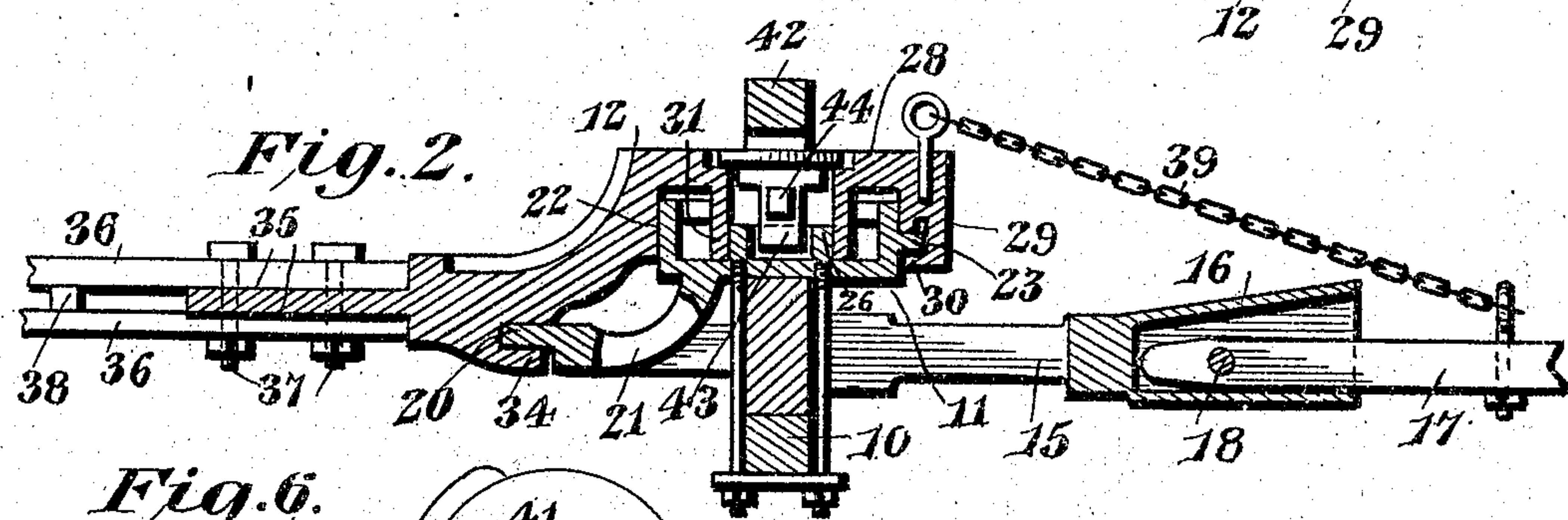
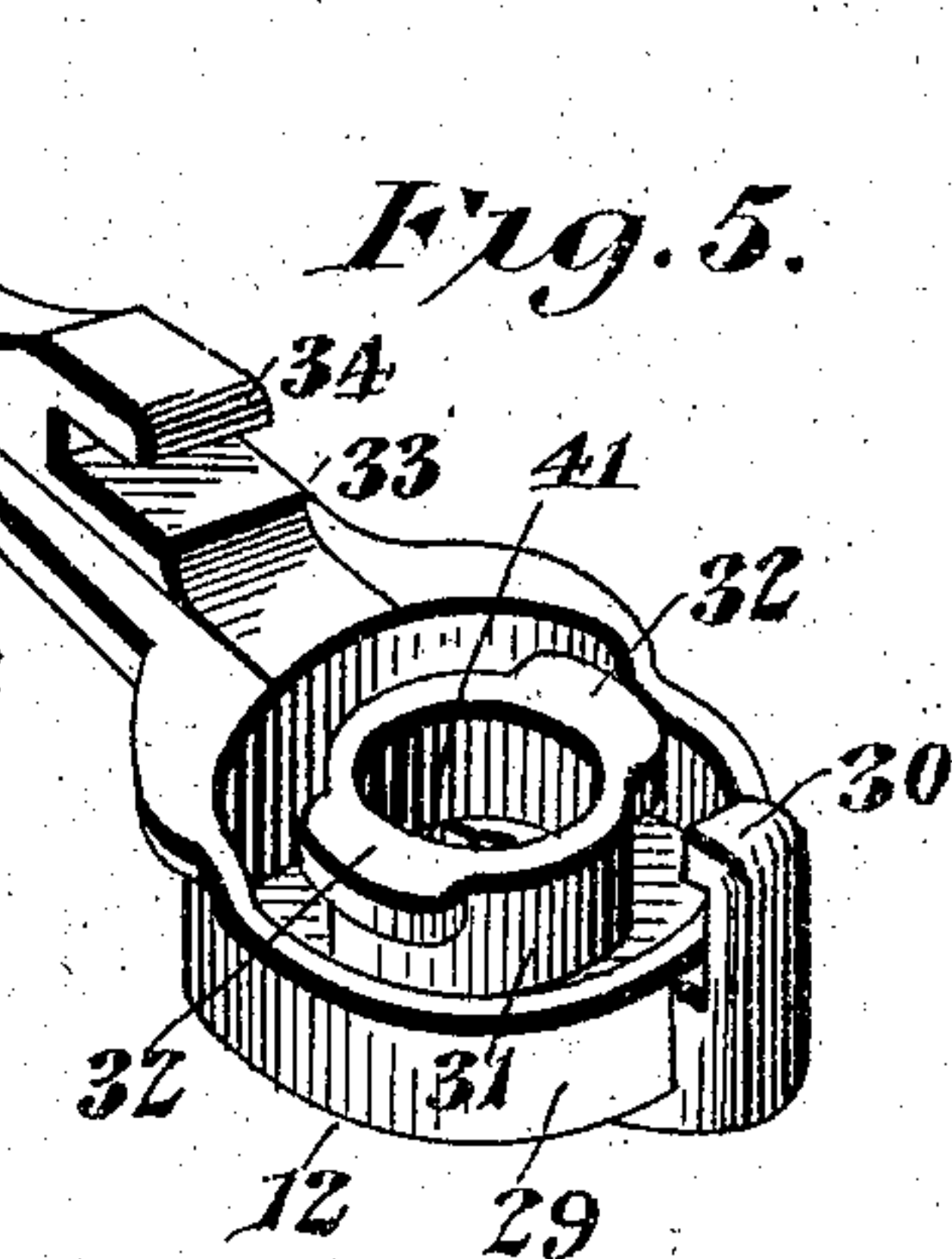
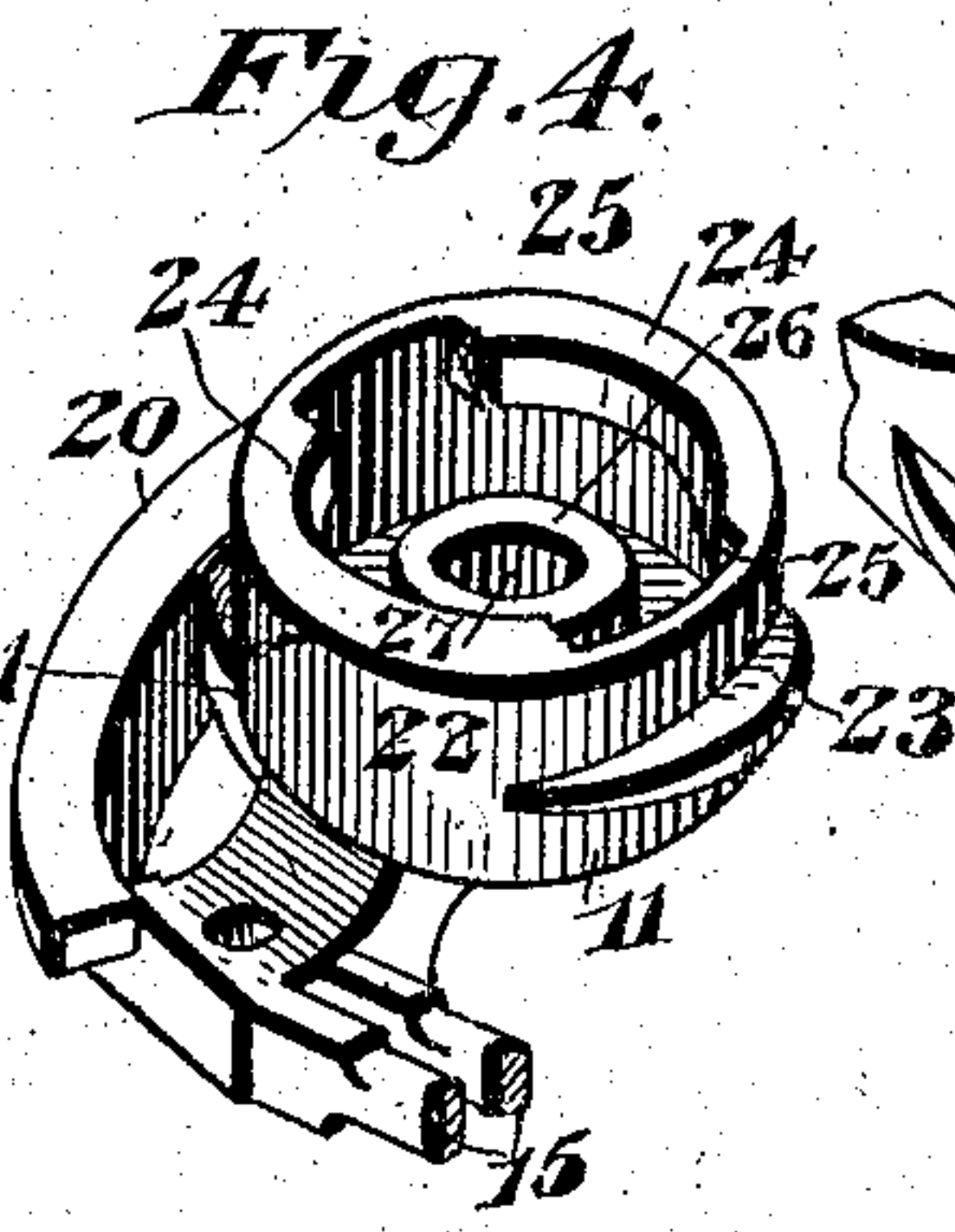
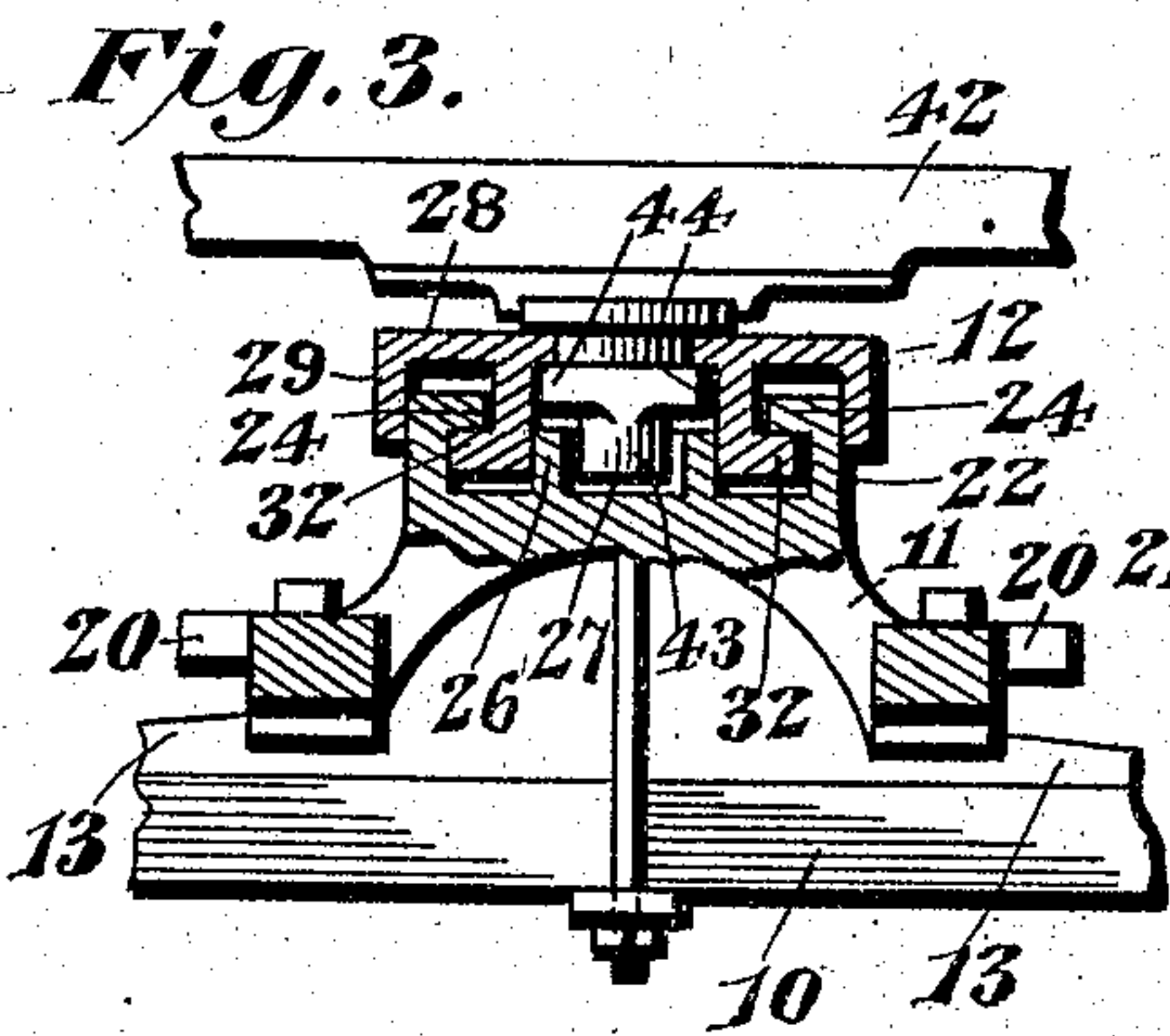
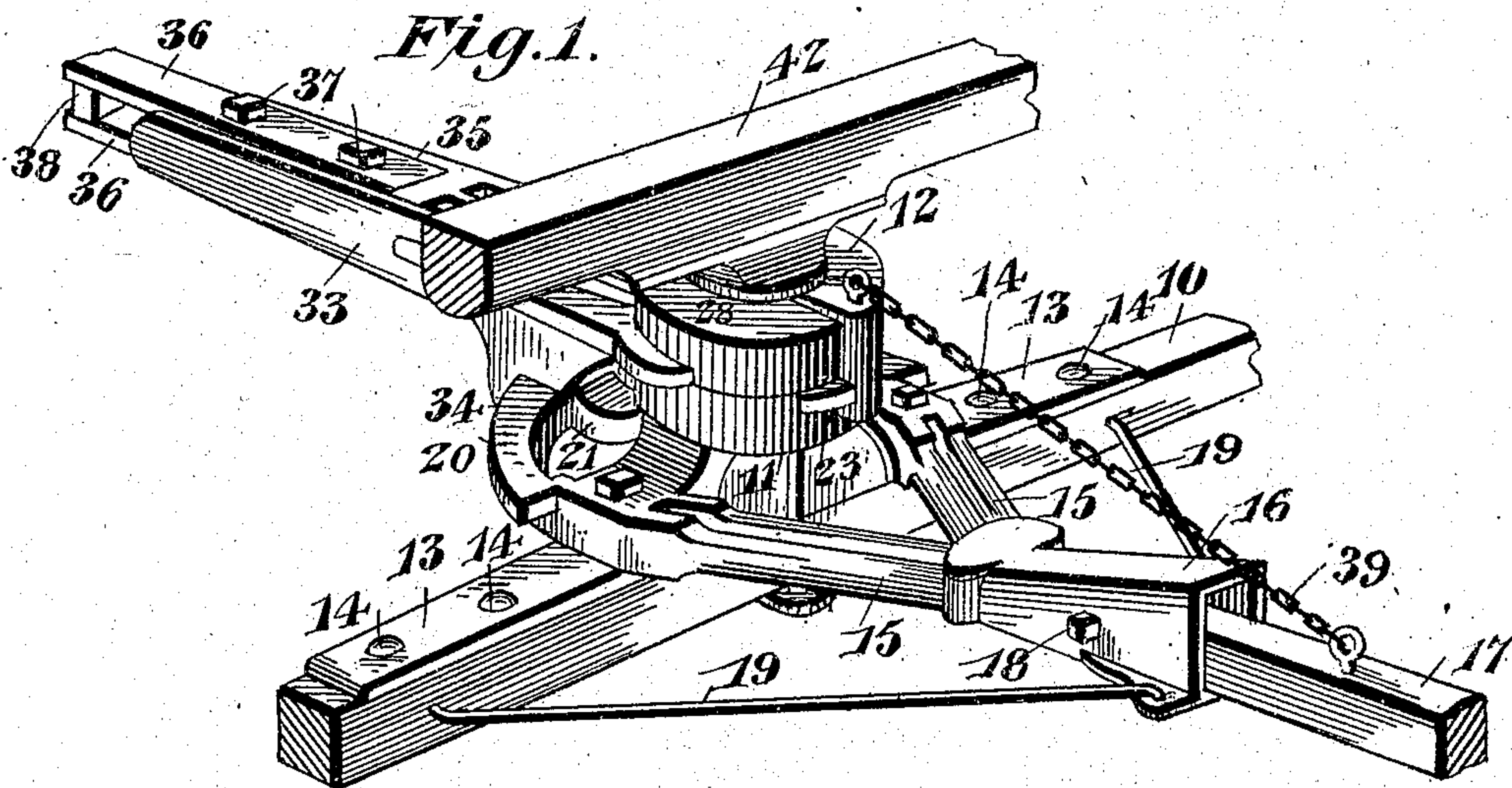


No. 815,527.

PATENTED MAR. 20, 1906.

J. H. GRESSOM.  
VEHICLE RUNNING GEAR.  
APPLICATION FILED MAY 6, 1905.



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# UNITED STATES PATENT OFFICE.

JAMES HENRY GRESSOM, OF NORTH HUDSON, WISCONSIN.

## VEHICLE RUNNING-GEAR.

No. 815,527.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed May 6, 1905. Serial No. 259,177.

*To all whom it may concern:*

Be it known that I, JAMES HENRY GRESSOM, a citizen of the United States, residing at North Hudson, in the county of St. Croix and State of Wisconsin, have invented a new and useful Vehicle Running-Gear, of which the following is a specification.

The present invention relates to improvements in vehicle running-gear, and more particularly to the coupling between the front axle, the reach, the bolster, and the tongue.

The primary object of the invention is to improve the construction illustrated and claimed in the former patent granted to me September 12, 1899, and numbered 633,000.

One of the most serious objections to the patented structure resulted from securing the bolster directly to the cap member, which is attached to the reach, as it is impossible to remove a body or rack from the running-gear without great difficulty and the services of two or more assistants. The present coupling is so constructed that the bolster has an entirely free and independent movement from the coupling members, though supported thereby, so that a body or rack mounted upon the bolster can be easily thrown to one side or the other and readily removed, said independent movement of the bolster being also a very desirable feature when the vehicle is traveling over rough roads, as it avoids a great many strains which would be otherwise imparted to the running-gear.

Another very important feature of the invention relates to the means for interlocking the members of the coupling, said means being much stronger than in the original device.

Still other features reside in the construction and connection of the reach and also in the manner of connecting the tongue, the advantages for which hereinafter fully appear.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the coupling. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a cross-sectional view. Fig. 4 is a perspective view of a portion of the base member. Fig. 5 is an inverted detail perspective view of the cap member. Fig. 6 is a top plan view of said cap member.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

Before proceeding with the description of

the invention it may be said that while in the present instance the structure is shown especially designed for ordinary farm or lumber wagons, it will be readily understood that it can be employed upon all sorts of vehicles and agricultural implements, also spring-wagons of all kinds.

In the present embodiment the usual front axle is designated by the reference-numeral 10, and upon the same is mounted a base member 11, with which is pivotally associated a cap member 12. The base member 11 comprises a body having outstanding arms 13, which rest upon and are secured to the axle 10 by means of bolts 14. Extending forwardly from the member are convergently-disposed arms 15, which support an inclosed boxing 16, having its front end open, said boxing preferably tapering toward its rear end. The rear end of the tongue 17 extends into this boxing and is pivoted therein by means of a bolt 18. Braces 19 connect the boxing and the front axle 10. A segmental bearing-flange 20 is secured to the rear side of the member, being connected to the body portion by means of a web-piece 21. The base member furthermore is provided with an upstanding annular wall 22, forming an open-ended casing, said wall being provided on its outer side with an outstanding lip 23 and on its inner side contiguous to its upper edge with inwardly-extending lips 24, the ends of said lips being spaced apart to provide entrance-openings 25. Within the annular wall is arranged a boss 26, that is hollowed out to provide a socket 27.

The cap member 12 comprises a flat circular plate 28, that is arranged to cover the open side of the base member, and carries a depending wall 29, that surrounds the wall 22 of the base member, said wall 29 having an inturned lip 30, that engages beneath the lip 23 of the wall 22. A hollow depending boss 31 is arranged within the depending wall 29 and is adapted to fit within the annular wall 22 of the base member and about the boss 26 thereof, as clearly shown in Figs. 2 and 3, this boss 31 being provided with outstanding lips 32, which engage beneath the inwardly-extending lips 24 of the base member, being movable through the receiving-openings 25, as will be readily understood. The cap member furthermore carries a rearwardly-extending shank 33, the lower portion of which has an ear 34, that engages be-



neath the segmental flange 20 of the base member. The rear end of this shank is provided in its upper and lower faces with longitudinally-disposed seats 35, in which are  
 5 fitted spaced reach-bars 36, secured by means of bolts 37. Spacing-blocks 38 are arranged between these bars at suitable intervals. A supporting-chain 39 connects the forward  
 10 portion of the cap member and the tongue 17 in front of the boxing 16, said chain transmitting the weight of the tongue to the coupling, and thereby relieving said boxing of the same. The plate 28 of the cap member is  
 15 furthermore provided with an opening 40, which alines with the socket 27 in the boss 26, said opening being provided with offset portions 41.

The bolster, which is designated 42, is arranged upon the coupling and carries a depending pivot-pin 43, which passes through  
 20 the opening 40 and engages in the socket 27 of the base member, said pin being provided with outstanding retaining-lugs 44, which are arranged to be passed through the offset portions 41 of the opening 40 and when arranged  
 25 out of alinement therewith engage beneath the plate 28, thereby preventing the displacement of the bolster.

The advantages for this construction over  
 30 the patented device may be summed up as follows: In the first place the cap member 12 has an interlocking engagement with the inner and outer faces of the annular wall 22 of the base member, whereas in the former construction this interlocking engagement is  
 35 only provided upon the outer face. Then again while the bolster is securely locked to the coupling and is supported thereon it has a free independent movement from either  
 40 member, so that it may be turned without regard to the position of the members. The specific construction of the reach is important, as it is much stronger than the prior structure, the two bars constituting a truss  
 45 which will neither yield in an upward or downward direction. By having the pivot end of the tongue entirely incased the pivot is protected to a great extent from dirt and sand, so that it will not wear as rapidly. This  
 50 is of the greatest importance, especially when the vehicle is used in hauling earth or sand. Furthermore, the chain transmits the weight of the tongue to the coupling, and the boxing is entirely relieved of such strain.

55 From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

65 Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a coupling of the class described, rev-  
 olubly-associated members, one of said mem-  
 bers having an annular wall, the other having  
 70 an interlocking engagement with the inner face of the wall and an interlocking engagement with the outer face of the wall, said engagements being respectively located at different  
 75 sides of the axis of rotation of the members.

2. In a coupling of the class described, rev-  
 olubly-associated members, one of said mem-  
 bers having an annular wall provided with an  
 outstanding lip on its outer face and at one  
 80 side of the axis of rotation of the members, said wall also having an inwardly-extending lip on its inner face and on a different side of said axis of rotation, the other member carrying  
 85 projections located on opposite sides of the annular wall and on different sides of the axis of rotation of the members, said projections having offset portions that respectively and movably engage beneath the lips.

3. In a coupling of the class described, the  
 90 combination with a base member having an upstanding annular wall provided on its inner face with inset lips, the ends of which are spaced apart, said wall also having an out-  
 95 standing lip located on the portion between the ends of the inset lips, a cap member rev-  
 olubly fitted upon the base member and having depending portions that are located within and engage beneath the inset lips, said  
 100 cap member also having a depending portion located between the ends of the first-mentioned portion and engaging beneath the out-  
 standing lip of the base member.

4. In a coupling of the class described, the  
 105 combination with pivotally-associated coupling members, of a bolster located upon the members, and a pivot carried by the bolster and having an engagement with said mem-  
 bers.

5. In a coupling of the class described, the  
 110 combination with a base member, of a cap member pivotally associated with the base member and having an opening therethrough, a bolster located upon the cap member, and a  
 115 pivot carried by the bolster, said pivot passing through the opening in the cap member and having an engagement with the base member.

6. In a coupling of the class described, the  
 120 combination with a base member having a seat, of a cap member pivotally associated with the base member and having an opening therethrough that alines with the seat of the base member, a bolster located upon the  
 125 cap member, and a pivot carried by the bolster, said pivot passing through the opening in the cap member and engaging in the seat of the base member.

7. In a coupling of the class described, the  
 130 combination with a base member having a



seat, of a cap member pivotally associated with the base member and having an opening therethrough that alines with the seat of the base member and is provided with offset portions, a bolster located upon the cap member, and a depending pivot carried by the bolster and passing through the opening in the cap member, said pivot having outstanding retaining-lugs which pass through the offset portions of said opening and are normally disposed out of alinement therewith.

8. In a coupling of the class described, the combination with upper and lower pivotally-associated members, of a rearwardly-tapering boxing attached to the lower member and having an open front end, a tongue having its rear end located in the boxing, a transverse pivot extending through the boxing

and tongue, and a flexible connection between the upper member and the tongue in advance of the boxing.

9. In a coupling of the class described, the combination with pivotally-associated coupling members, of a bolster, and a pivot fixed to the bolster and rotatably associated with the members, said pivot being rotatable with the bolster and with respect to both of the members.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES HENRY GRESSOM.

Witnesses:

ROBERT E. GRESSOM,  
W. F. BEHRENS.