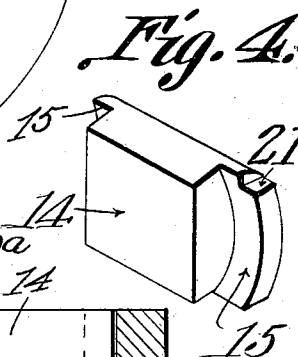
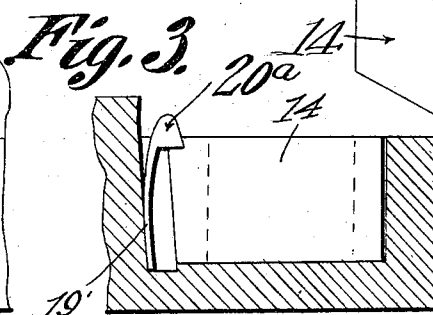
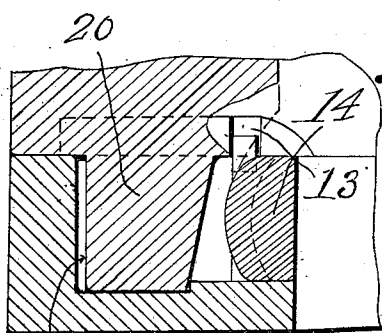
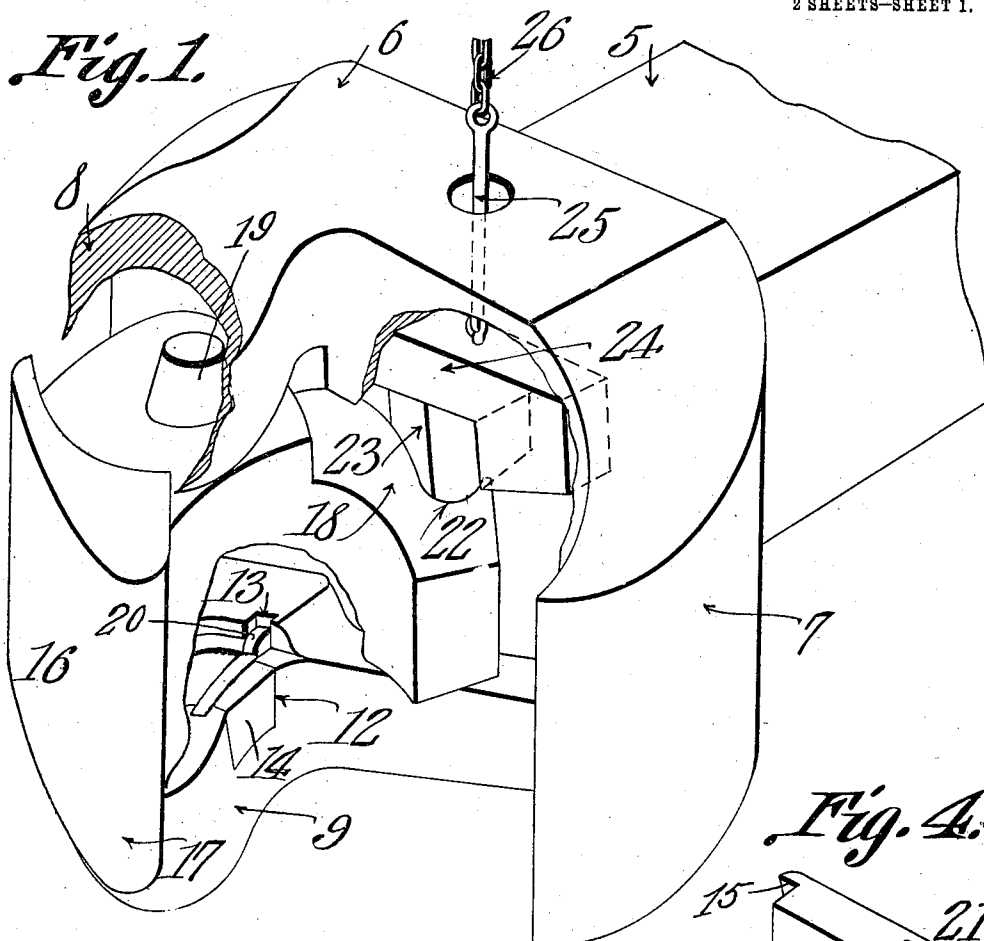


1,014,485.

Patented Jan. 9, 1912.

2 SHEETS—SHEET 1.



*Fig. 2.*

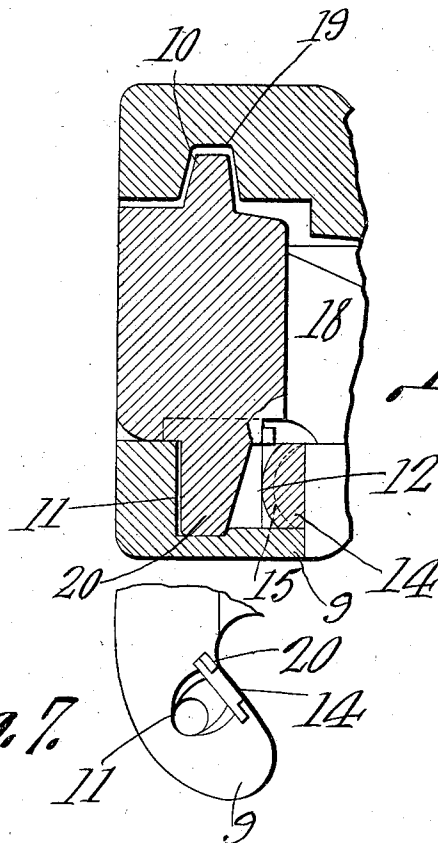
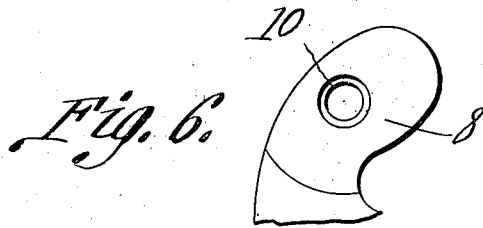
Witnesses

*E. H. Hunt*  
*J. G. Smith*

Inventor  
*Henry C. Kerr*  
By *C. A. Snow & Co.*  
Attorneys

1,014,485.

Patented Jan. 9, 1912.  
2 SHEETS—SHEET 2.



Witnesses

*W. J. Dineen*  
*J. G. Smith*

*Henry C. Kerr*

Inventor

by

*C. A. Snow & Co.*  
Attorneys

# UNITED STATES PATENT OFFICE.

HENRY CALVIN KERR, OF ROANOKE, VIRGINIA.

## CAR-COUPLING.

1,014,485.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed February 7, 1910. Serial No. 542,537

*To all whom it may concern:*

Be it known that I, HENRY C. KERR, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented a new and useful Car-Coupling, of which the following is a specification.

It is the object of the present invention to provide an improved construction of car coupling of the Janney type and the primary object of the invention is to provide a car coupling of this type in which the knuckle will be pivotally supported without the employment of the usual pivot or hinge pin now common in such couplings.

It is a further object of the invention to so construct the bearings for the knuckle pin that the knuckle may be readily removed although this is provided for without weakening the said bearings and without the employment of bolts or any other means which would be liable to become accidentally disarranged or loosened.

The invention contemplates the provision, as a means for journaling the knuckle to the head, of opposed bearings, one of which has an open side closed by a block removably disposed therein and automatically locked in place upon insertion. This block normally holds the knuckle against removal from the draw head but when the block is removed, the knuckle may be tilted and readily removed or dismounted.

In the accompanying drawings,—Figure 1 is a perspective view of the coupling embodying the features of the present invention, parts being broken away. Fig. 2 is a vertical transverse sectional view through the lower bearing for the knuckle of the coupling. Fig. 3 is a detailed sectional view disclosing more especially the spring catch 20<sup>a</sup>. Fig. 4 is a perspective view of the removable block for closing one of the bearings for the knuckle of the coupling. Fig. 5 is a broken sectional elevation showing more especially the knuckle-pivoting studs and adjacent parts. Fig. 6 is a bottom plan view of the upper pivot jaw. Fig. 7 is a top plan view of the lower pivot jaw.

In the drawings, there is shown an ordinary draw bar 5 carrying a draw head of the Janney type indicated by the numeral 6. This draw head 6 includes the usual lateral jaw portion 7 and at its opposite side 5 is formed with spaced bosses the upper one

of which is indicated by the numeral 8 and the lower one by the numeral 9.

The upper boss 8 is formed with a seat or socket 10 in its under face and this socket opens solely through this face of the said boss. In a like manner, the boss 9 is formed in its upper face with a socket 11 which opens also through its side or lateral face which is presented toward the jaw 7. This lateral opening is had by way of a recess 12 formed in the said face of the boss and the vertical walls of this recess are formed with corresponding arcuate grooves 13 as seen in Figs. 1 and 2. A block 14, illustrated in detail in Fig. 4 of the drawings, is designed to close the recess 12 and hence close the lateral opening of the socket 11 and this block is of rectangular general outline and is formed at each end with an arcuate rib 15. These ribs 15 correspond in curvature to the grooves 13 and are adapted to seat therein in the manner illustrated in the drawings, when the block is in position to close the recess. That face of the block which is presented inwardly, when the block is in position in the recess, is convex as clearly shown in Fig. 2 for a purpose which will presently be explained and in disposing the block in the recess, it is partly rotated about an imaginary center after it has been so placed as to bring the lower ends of its ribs in the upper ends of the grooves. To remove the block, this operation is of course reversed.

The knuckle of the coupling is indicated, in general, by the numeral 16 and has the usual nose 17 and tail 18 which tail will be presently more specifically referred to. At its top and bottom, the knuckle is formed with pivot studs 19 and 20 respectively. The pivot stud 19 is received in the socket 10 and the stud 20 is received in the socket 11 and the knuckle is in this manner supported for swinging movement on the draw head. It will be readily understood that the knuckle is assembled with the head by tilting or canting it and first engaging the stud 19 in the socket 10 and then righting the knuckle to cause the stud 20 to enter the socket 11. The block 14 is then disposed in the recess 12 to close the said socket 11. As a means for holding the block against accidental displacement, there is provided a spring latch 19' the head 20<sup>a</sup> of which is adapted to seat in a notch 21 formed in one

upper corner of the said block, it being observed that the said latch is mounted in one of the grooves 13 and is so sprung away from the wall of the groove that it may be  
5 pressed back into the bottom of the groove out of engagement with the block whereby to permit of removal of the same and subsequent removal of the knuckle.

From the foregoing it will be seen that  
10 the invention contemplates a coupling in which the usual pin for connecting the knuckle with the draw head is dispensed with and a more substantial structure is produced.

15 The tail 18 of the knuckle 16 has in its rear side, near one end, a recess 22 to receive a stem or pin 23 depending from a block 24 at one end, the latter being hung within the draw-head from a link 25, in turn suspended  
20 from a chain 26, as usual. As the knuckle 16 is swung toward the jaw 7 its tail 18 will be engaged and held by the block 24 accordingly, securing said knuckle in locked position. In order to release the knuckle 16, an  
25 upward pull is exerted upon the chain 26, which will elevate the block 24 out of engagement with the tail 18, the stem or pin 22 simultaneously engaging the tail 18 and moving the knuckle 16 into its unlocked  
30 position, as indicated in Fig. 1.

What is claimed is:—

1. In a coupling, a draw head having spaced bosses formed each with a socket, one of the bosses being formed with a recess communicating with the respective socket, 35 the walls of the recess being formed with vertically disposed grooves, a block removably disposed in the recess and having ribs seating in said grooves, and a knuckle having studs seating in said sockets. 40

2. In a coupling, a draw head having spaced bosses formed each with a socket, one of the bosses being formed with a recess communicating with the respective socket, 45 the walls of the recess being formed with vertically disposed grooves, a block removably disposed in the recess and having ribs seating in said grooves, means locking said block in the recess including a resilient latching member, adapted to engage said 50 block, and a knuckle having studs seating in said sockets.

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

HENRY CALVIN KERR.

Witnesses:

W. E. FOWLER,  
BEVERLEY BERKELEY.