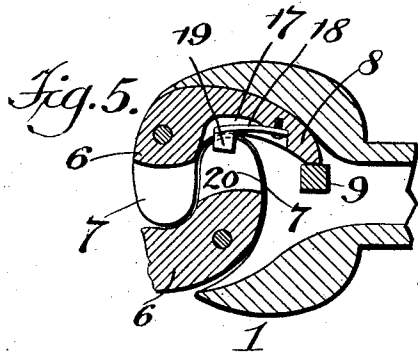
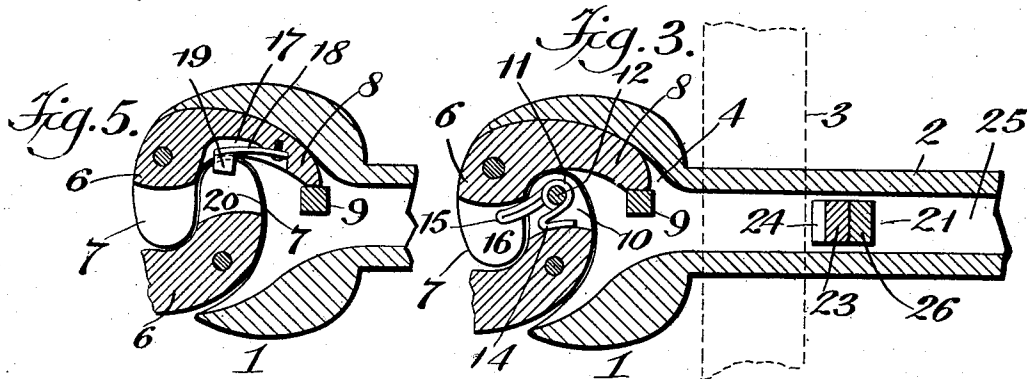
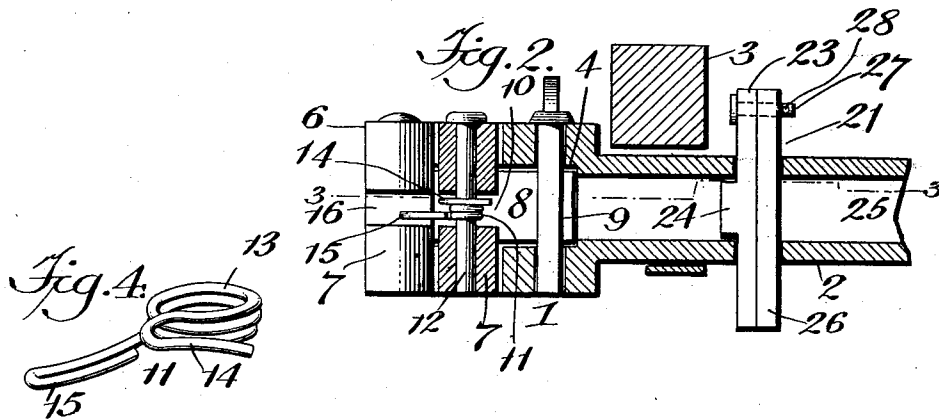
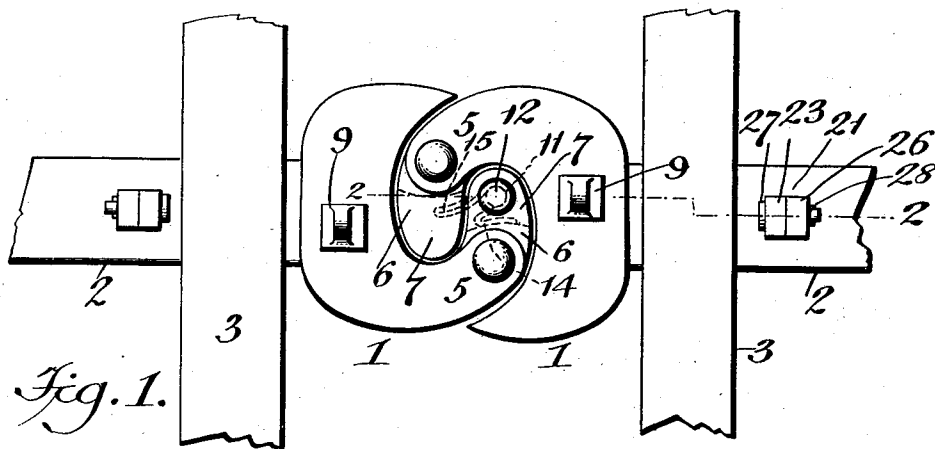


H. E. WELSH.
DRAW HEAD SUPPORT.
APPLICATION FILED APR. 16, 1903.

NO MODEL.



Witnesses
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J. J. Elmore

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UNITED STATES PATENT OFFICE.

HAMILTON E. WELSH, OF LEWISTOWN, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO FRANK E. MANN AND H. S. ELDER, OF LEWISTOWN, PENNSYLVANIA.

DRAW-HEAD SUPPORT.

SPECIFICATION forming part of Letters Patent No. 749,245, dated January 12, 1904.

Application filed April 16, 1903. Serial No. 152,977. (No model.)

To all whom it may concern:

Be it known that I, HAMILTON E. WELSH, a citizen of the United States, residing at Lewistown, in the county of Mifflin and State of Pennsylvania, have invented a new and useful Draw-Head Support, of which the following is a specification.

My invention relates to draw-heads, and is especially directed to means for preventing the draw or coupling heads escaping one from the other during operation owing to vertical play and is further directed to means for preventing escape of the draw-head from the car in the event of the draw-bar becoming fractured in rear of the dead-wood, and has for its objects to produce a device of this character which will be simple of construction and one which will in practice efficiently perform its functions.

To these ends the invention comprises the novel details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a top plan view of a pair of coupling heads or members having my improvements applied thereto. Fig. 2 is a vertical longitudinal sectional elevation on the line 2-2, Fig. 1. Fig. 3 is a horizontal section taken on the line 3-3 of Fig. 2. Fig. 4 is a perspective detail of one of the supporting-fingers. Fig. 5 is a view similar to Fig. 3, illustrating a slightly-modified form.

Referring to the drawings, 1 1 indicate a pair of draw-heads or coupling members formed at the outer ends of the usual draw-bars 2, which extend through the dead-wood 3 of the car and are connected with suitable draft-rigging. These parts may, with the exceptions hereinafter described, be of the usual or any desired construction or material, inasmuch as they constitute no part of my invention. The draw-heads are cored out or recessed as usual, as at 4, and have a pair of forwardly-projecting horizontal arms 5, which are spaced vertically one above the other.

6 is a coupling-knuckle, which is pivoted in any suitable manner between the arms 5 and is provided with an inwardly-extending por-

tion 7, which normally lies transversely across the forward end of the head in position for engagement with a similar portion of the coupling-knuckle of the companion head for coupling them one to the other. The coupling-knuckle 6 is also provided with a shank or finger 8, which is disposed at substantially right angles to the portion 7 and which normally extends rearwardly into the recess 4 of the head in position to be engaged by a coupling-pin 9 for holding the coupling-knuckle in its normal coupling position.

In order to prevent the heads or members 1 escaping one from the other, owing to vertical play of the parts during ordinary use of the device or in the event of one of the heads breaking from its draw-bar in advance of the dead-wood 3, one of the knuckles 6 is centrally and horizontally recessed, as at 10, to receive a horizontal key or member 11, which is pivotally retained in place by means of a vertical pin 12, inserted downward through suitable perforations in the knuckle. This key or member, which is preferably composed of heavy gage spring-wire, has a central coil 13, which embraces the pin 12, and a spring finger or portion 14, which lies within the recess and bears against the inner wall of the same, and with a horizontally-extended portion or finger 15, which projects into a recess 16, formed in the knuckle 6 of the companion coupling member 1, when the parts are in coupled engagement. This construction permits the proper relative vertical movements of the parts yielding and at the same time obviates liability of the coupling-heads becoming accidentally disengaged, as before stated, owing to such vertical movement.

In Fig. 5 there is disclosed a modified form of mechanism for preventing the escape of the heads vertically one from the other. In this modified form of the device the fingers 8 are each recessed, as at 17, for the reception of a spring arm or member 18, which has a laterally-projecting portion or finger 19, adapted to engage in a recess 20, formed in the knuckle 6 of the companion member. Aside from this difference in construction the operation of

the device is identical with and sub-serves all the functions of that above described.

In order to obviate liability of the heads or members 1 becoming disconnected from the car in the event of the draw-bars 2 becoming fractured in rear of the dead-wood 3, I provide each draw-bar, just in rear of the dead-wood, with a vertical transverse key or member 21, which serves to engage the dead-wood and to prevent the draw-bar being pulled outward therefrom. This retaining key or member consists of a main piece 23, provided at its longitudinal center with an integral lug 24, which projects into a central hole or bore 25 in the draw-bar, and a supplemental wedge-piece 26, which maintains the main piece 23 in position and is removably attached thereto by means of a transverse bolt 27, inserted through suitable registering perforations at the upper ends of the pieces 23 26 and held in place by a cotter-pin or the like 28.

From the foregoing it will be seen that I produce a simple and efficient mechanism which is admirably adapted for the attainment of the ends in view, and it is to be understood that I do not limit myself to the precise details herein shown and described, inasmuch as minor changes in the form, proportions, and manner of assemblage of the parts may be made without departing from the spirit of my invention.

Having thus described my invention, what I claim is—

1. In a device of the class described, the combination with a pair of coupling heads or members, of coupling-knuckles pivotally associated with the heads and adapted for inter-engagement, means for holding the knuckles into engagement longitudinally, and means

for yieldably maintaining them in engagement vertically.

2. In a device of the class described, the combination in a pair of coupling heads or members, of coupling-knuckles pivotally associated with the heads and adapted for inter-engagement, means for holding the knuckles in engagement longitudinally, and a spring-finger associated with one of the knuckles and engaging a recess formed in the other for maintaining the knuckles in engagement vertically.

3. In a device of the class described, the combination with a pair of coupling heads or members, of interengaging coupling-knuckles pivotally associated with the heads and provided with recessed coupling portions, means for holding the knuckles into engagement longitudinally, and a spring member pivoted in the recess of one of the knuckles and provided with a finger for engaging in the recess of the other knuckle.

4. In a device of the class described, the combination with a car dead-wood, of a draw-bar extending therethrough and provided at its outer end with a coupling-head and with a central bore, a key extending through the draw-bar in rear of the dead-wood and comprising a main piece having a lug projecting into the central bore of the draw-bar, a wedge-piece and means for connecting said pieces.

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

HAMILTON E. WELSH.

Witnesses:

GEO. D. MOORE,
W. F. ECKBERT, Jr.