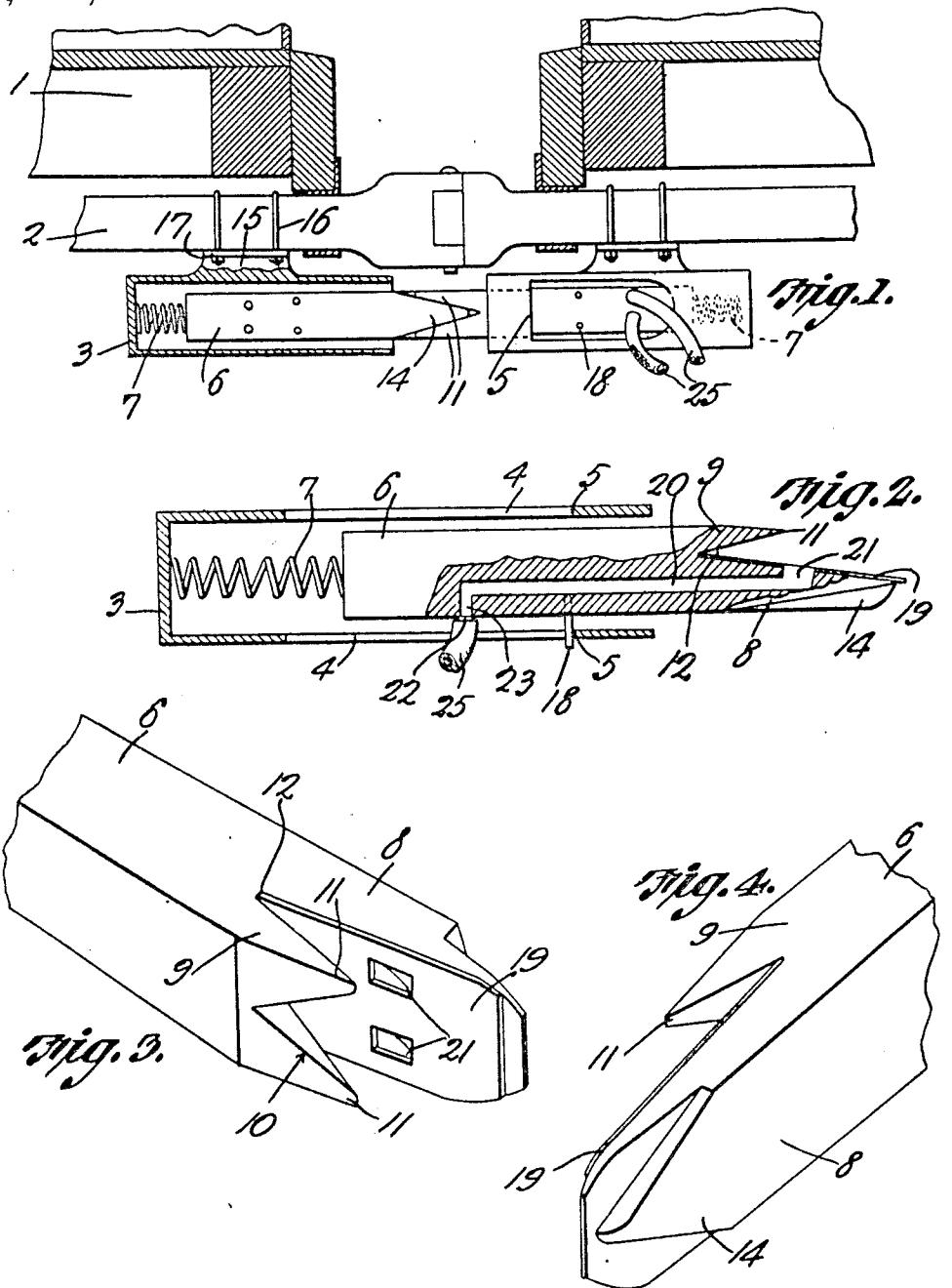


J. ROY.  
AUTOMATIC AIR HOSE COUPLING.  
APPLICATION FILED AUG. 5, 1915.

1,168,426.

Patented Jan. 18, 1916.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN ROY, OF LOS ANGELES, CALIFORNIA.

## AUTOMATIC AIR-HOSE COUPLING.

1,168,426.

Specification of Letters Patent.

Patented Jan. 18, 1916.

Application filed August 5, 1915. Serial No. 43,828.

To all whom it may concern:

Be it known that I, JOHN ROY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Automatic Air-Hose Coupling, of which the following is a specification.

The device forming the subject matter of this application is adapted to be employed 10 for automatically coupling the fluid pressure pipes on a pair of railway vehicles.

The invention aims to provide a novel form of coupling head, and to provide novel means for mounting the head yieldingly.

15 It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view 20 which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that 25 changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:—Figure 30 1 shows in vertical longitudinal section, portions of a pair of railway vehicles to which the couplers forming the subject matter of this application have been attached, parts appearing in elevation; Fig. 2 is a horizontal section delineating the coupling head and 35 its casing; Figs. 3 and 4 are perspective views of the head.

In the accompanying drawings, the numeral 1 indicates a car provided with a 40 draw bar 2 constituting a support for the coupler forming the subject matter of this application.

In carrying out the present invention there is provided a box-like casing 3 located 45 below the draw bar 2 and equipped with an upstanding lug 15 which abuts against the lower face of the draw bar. U-bolts 16 or other suitable connecting elements unite the draw bar with the casing 3, the lugs 15, if 50 desired being provided with lateral flanges 17 through which the U-bolts 16 pass.

In its sides, the casing 3 is provided with 55 openings 4 defining shoulders 5. Disposed within the casing 3 is a slidably mounted head 6. A compression spring 7 abuts against the end of the head 6 and against

the rear end of the casing 3, the head 6 being equipped with projections 18 of any desired sort which, coacting with the shoulder 5, limit the outward movement of the head 6 60 under the action of the spring 7.

The head 6 is terminally bifurcated to form a tapered main arm 8, a tapered auxiliary arm 9, and a V-shaped seat 12 between the arms. The main arm 8 preferably 65 is somewhat longer than the auxiliary arm 9. In the extremity of the arm 9 is formed a V-shaped notch 10 defining pointed fingers 11. On the outer face of the main arm 8 there is a V-shaped rib 14. The inner face 70 of the main arm 8 preferably is provided with a resilient gasket 19. Formed in the interior of the head 6 are one or more passages 20, opening laterally, as indicated at 21, through the gasket 19. The rear ends of 75 the passages 20 open as indicated at 23 laterally through the side wall of the head 6 and by means of suitable couplings 22 are connected with the fluid pressure pipes 25. It is to be understood that the head 6 may 80 be provided with as many passages 20 as is considered expedient, the number of passages being regulated by the number of different fluid pressure lines of communication. The pipes 25 pass laterally out of one of 85 the openings 4 in the casing 3, as will be obvious from Fig. 1.

The main arm 8 is shaped to be received in the seat 12 of an adjoining coupler and the V-shaped rib 14 on the one coupler is 90 adapted to be received in the notch 10 of an adjoining coupler, the gaskets 19 on the couplers being forced into close and intimate contact, and a continuous drain pipe line being established through the mouths 95 21 of the passages 20, when a pair of couplers constructed in accordance with the present invention are brought together.

Obviously, the springs 7 serve to thrust the heads 6 forwardly, and to maintain the 100 heads on the couplers of a pair of cars in contact and in co-operating relation.

Having thus described the invention, what is claimed is:—

In a coupler of the class described, a head 10 terminally bifurcated to form tapered main and auxiliary arms and to form a tapered seat therebetween, the main arm being longer than the auxiliary arm, the auxiliary arm being terminally provided with a 11 tapered notch, and the outer face of the main arm being provided with a tapered

longitudinal rib, the main arm and the rib being shaped to be received respectively in the seat and in the notch of a like coupler, the head having a passage embodying a mouth which opens laterally through the inner face of the main arm, the rib coacting with the notch to aline the mouths of two couplers when the same are brought into coöperating relation, and the main arm

coacting with the seat to hold said mouths together.

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

JOHN ROY.

Witnesses:

JOSEPH B. McCUE,  
ANTAN DANIELSAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."