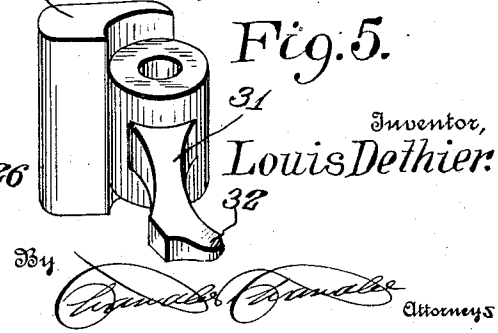
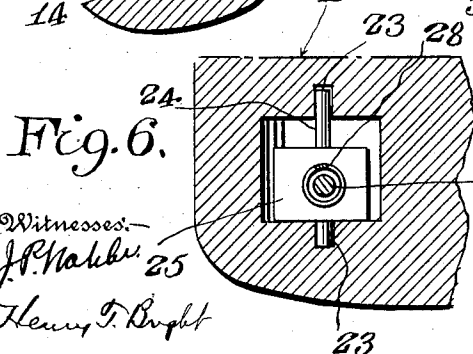
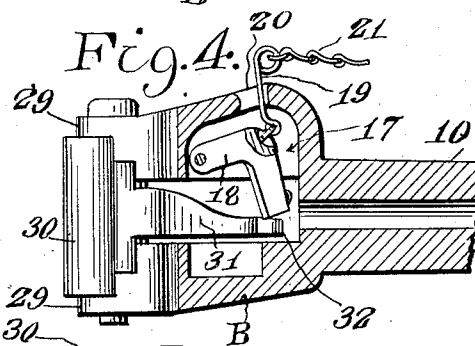
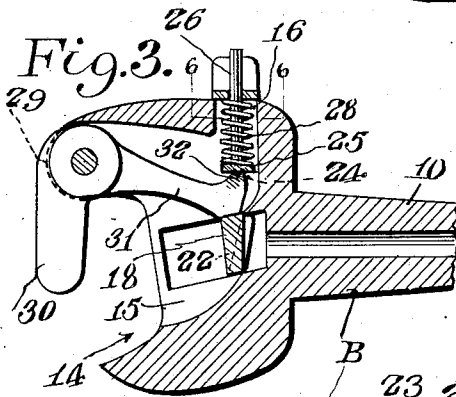
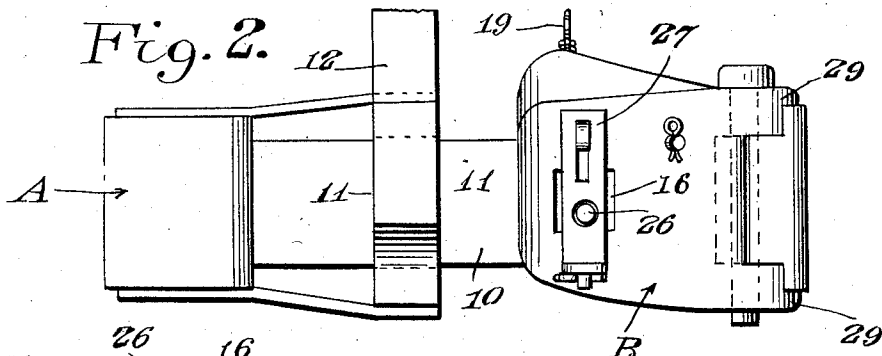
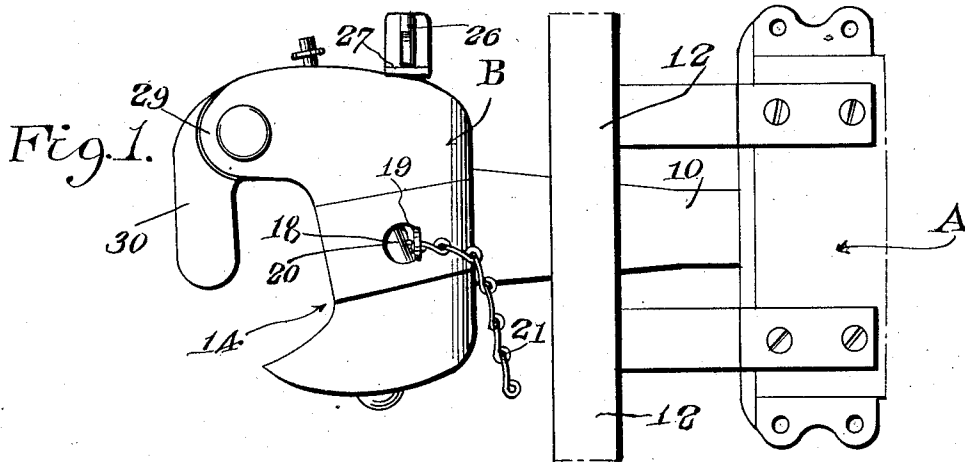


L. DETHIER.
CAR COUPLING.
APPLICATION FILED JUNE 3, 1912.

1,049,684.

Patented Jan. 7, 1913.



Witnesses:
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UNITED STATES PATENT OFFICE.

LOUIS DETHIER, OF MOUNT VERNON, OHIO.

CAR-COUPLING.

1,049,684.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed June 3, 1912. Serial No. 701,397.

To all whom it may concern:

Be it known that I, LOUIS DETHIER, a citizen of the United States, residing at Mount Vernon, in the county of Knox, State of Ohio, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to car couplers and particularly to the M. C. B. type.

The object of the invention resides in the provision of a car coupler which includes an improved construction and arrangement of parts and which will be durable and efficient in use.

With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a top view of the coupler and also the forward end of a draft rigging with which the coupler is associated, Fig. 2, a side view of the coupler, Fig. 3, a horizontal section through the coupler showing the knuckle in locked position, Fig. 4, a vertical section through the coupler showing the knuckle partially closed and the locking latch of the knuckle elevated and in the position it would occupy just previous to its release to locking position, Fig. 5, a detail perspective view of the knuckle of the coupler, and Fig. 6, a section on the line 6—6 of Fig. 3.

Referring to the drawings 10 indicates a draw bar which is operatively associated with a draft rigging indicated typically at A and preferably of the type shown and described in my application for U. S. Letters Patent, filed February 12, 1912, and serially numbered 676,978. This draw bar 10 is also slidable in a block 11 suitably suspended from the sill 12 of a car and terminates at its outer end in the coupler head B. This head B is provided at its outer end with a vertical recess 14 and the wall of this recess 14 is provided with a second recess 15 ex-

tending horizontally of the coupler head and opening through one side of the latter as at 16. The upper wall of the recess 15 is provided with a recess 17 in which is pivotally mounted a knuckle locking latch 18 adapted to have its free end manually elevated by means of a link 19 secured thereto and passing through an opening 20 extending through the upper sides of the coupler head. The outer end of this link 19 has secured thereto a chain 21 or other suitable gripping element. The free end of the pawl 18 is cut away to form an inwardly inclined face 22. The upper and lower wall of the recess 15 between the latch 18 and the opening 16 are provided respectively with grooves 23 in which slides a pin 24 extending upwardly through a plunger 25 having a stem 26 slidable through a bearing plate 27 mounted upon the outer face of the coupler head across the opening 16. Encircling the stem 26 is a spring 28 one end of which bears against the plunger 25, while the other end thereof bears against the inner face of the plate 27. This spring 28 constantly tends to maintain the pin 24 at the inner ends of the grooves 23, said pin 24 limiting the movement of the plunger 25 and stem 26 inwardly of the coupler head.

The forward end of the coupler head B at the side thereof which carries the bearing plate 27 is formed with spaced ears 29 between which is pivoted a coupling knuckle 30. The knuckle 30 is provided at its inner end with a tail 31 movable in the recess 15. The free end of this tail 31 is provided with a fin 32 the upper face of which is inclined downwardly toward its outer end. As the knuckle 30 is operated to move the tail 31 into the recess 15 the inclined upper face of the fin 32 will cooperate with the inclined face 22 of the latch 18 and elevate the free end of said latch. At the same time the free end of the tail 31 will engage the plunger 25 and compress the spring 28. Continued movement of the tail 31 will swing the free end of the latter out of engagement with the latch 18 and the latter will then drop under the influence of gravity across the outer side of the tail and lock the latter against movement toward the mouth of the recess 15. When the tail 31 is thus locked the knuckle 30 is held against movement so as to properly cooperate with the knuckle of another coupler and effect the coupling status in the well known manner. To re-

lease the coupler it is only necessary to lift the free end of the latch 18 through the medium of the link 19 and chain 21 when the plunger 25 will operate against the tail 5 31 to force the latter toward the mouth of the recess 15.

As the manner in which the interlocking relation between the adjacent couplers is effected is a matter of common knowledge, 10 a detail reference thereto herein is not deemed necessary.

What is claimed is:

In a car coupler, a head having a cavity opening through its front end and a pas- 15 sage communicating with the cavity at one end and opening through the side wall of the head at its other end, said passage having corresponding longitudinal grooves in opposite walls, a bearing plate secured 20 against the side of said head and overlying said passage, a stem disposed in said pas-

sage and slidable through the bearing plate, a head on the end of said stem remote from the bearing plate, a pin extending trans- 25 versely through said last named head and having its ends engaged in the longitudinal grooves respectively, a spring encircling said stem and having one end engaged with said bearing plate and its other end en- 30 gaged with said last named head, and a knuckle pivoted in said cavity and engaged by the head on the stem whereby the movement of the latter under the influence of said spring will move the knuckle to unlocked position. 35

In testimony whereof, I affix my signature, in presence of two witnesses.

LOUIS DETHIER.

Witnesses:

ULYSSE DESSERT,
J. A. SCHAEFFER.

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