

H. M. ROBERTSON.
HOSE COUPLING LOCK.
APPLICATION FILED FEB. 3, 1910.

958,438.

Patented May 17, 1910.

Fig. 1.

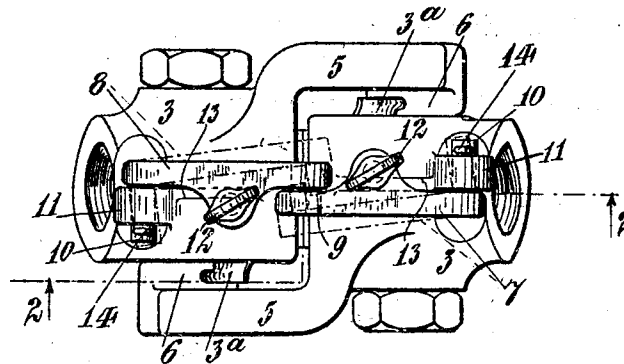


Fig. 2.

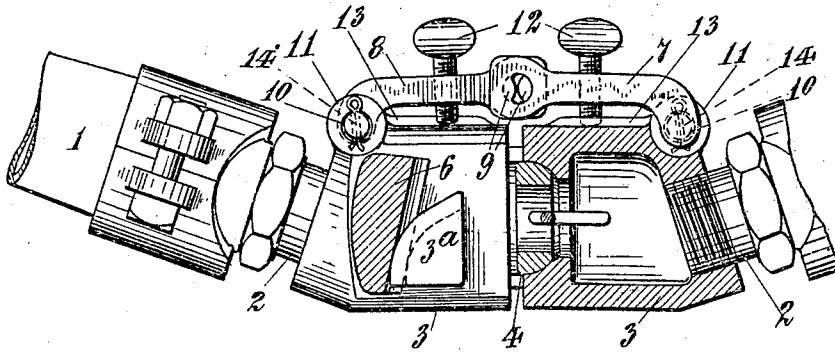


Fig. 3.

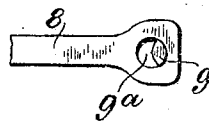
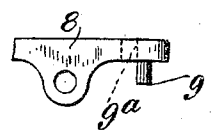


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY M. ROBERTSON, OF ST. PAUL, MINNESOTA, ASSIGNOR TO GOLD CAR HEATING & LIGHTING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

HOSE-COUPLING LOCK.

958,438.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed February 3, 1910. Serial No. 541,946.

To all whom it may concern:

Be it known that I, HENRY M. ROBERTSON, a citizen of the United States, residing in the city of St. Paul, in the State of Minnesota, have invented certain new and useful Improvements in Hose-Coupling Locks, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

This invention relates to hose coupling locks of the general character of that shown and described in a prior application for Letters Patent, Serial Number 511,905, filed August 9, 1909, and it has for its object to provide an improved locking device which shall be more easily disconnected to permit the disengagement of the coupling heads, while at the same time the parts of the locking device shall remain permanently connected with the coupling heads so that they shall always be in readiness for use.

The invention will be more fully described hereinafter with reference to the accompanying drawing, in which it is illustrated, and in which—

Figure 1 is a top view of a coupling fitted with the improved lock. Fig. 2 is a view of the same in section on the irregular plane indicated by the broken line 2—2 of Fig. 1, a portion of one hose section and the connecting sleeves being also shown. Figs. 3 and 4 are detail views of a portion of one of the members of the toggle.

The hose sections, one of which is shown at 1, are connected by sleeves 2 with the complementary coupling-heads 3, the opposing ends of which are formed, as at 4, to make a tight joint when the coupling-heads are interlocked. The two heads are formed, as usual, with reversely offset arms 5, each of which is provided with a cam-flange 6 to coöperate with a corresponding cam-flange 3^a on the same side of the other head, these or any other usual or suitable devices constituting interlocking means by which the two heads are interlocked to hold the heads together with a steam-tight joint, the weight of the parts, acting through the co-operating cam-flanges, ordinarily maintaining the heads in the desired relation. Sometimes, however, a blow from beneath or the jumping of the cars effects an accidental disengagement or separation of the heads, or a loosening of the joint at 4. In said former application there is shown and

described a locking device independent of and supplementary, to the locking means by which the heads are held together normally, the purpose of which is to prevent such accidental disengagement or separation, such locking device, in the form shown, consisting of a toggle separably connected at its ends to the two heads and provided with a screw to bear against one of the heads to buckle the toggle and draw and hold the heads together.

The locking device which forms the subject of the present invention is similar in general character to that shown in said former application, consisting of a toggle having two members 7 and 8 connected at their outer ends to the two coupling heads near their remote ends and connected together or adapted to be connected together at an intermediate point. Each toggle member 7 and 8 has at its outer end a stud 10 preferably adapted to enter loosely, so as to permit some play, an eye 11 on the upper side of the corresponding head. At its other or inner end each member is adapted to be separably connected with the other member so as to form a toggle, having for this purpose a stud 9 and an eye 9^a, the stud of each being adapted to enter loosely the eye of the other. One or each of the members 7 and 8 is provided with a thumb-screw 12 which is adapted to bear against one of the heads, each head preferably being formed on its upper side with a rib or stop 13 having an inclined or cam surface against which the end of the screw 12 bears, the effect of the rib with its incline or cam, in coöperation with the screw, being to press the corresponding member 7 or 8 toward the other and prevent accidental disengagement of the interlocking ends when the device is in use. Each member 7 or 8 is retained in engagement with the corresponding head 3, so that it shall be always in readiness for use, as by a split pin 14 passed through the end of the stud 10 to prevent its withdrawal from the eye 11.

It will now be understood that when the heads 3 have been coupled in the usual manner the toggle members 7 and 8 are engaged, the one with the other, the looseness of the studs 10 in the eyes 11 permitting the necessary lateral play, as indicated by dotted lines in Fig. 1. The screws 12 are then screwed in until they press against the heads,

thereby buckling the toggle, drawing the heads firmly together and preventing any accidental loosening or separation of the heads until the screws are again loosened, when the toggle members can be separated and the heads uncoupled.

I claim as my invention:

1. The combination with hose-coupling heads provided with interlocking means whereby the heads are held together normally, of a toggle comprising members pivotally connected with the heads near their remote ends and adapted to be separably connected together, and means to buckle the toggle.

2. The combination with hose-coupling heads provided with interlocking means whereby the heads are held together normally, of a toggle comprising members pivotally connected with the heads near their remote ends and adapted to be separably connected together, and a screw carried by one of said members and adapted to bear against one of the heads to buckle the toggle.

3. The combination with hose-coupling heads provided with interlocking means whereby the heads are held together normally, of a toggle comprising members pivotally connected with the heads near their remote ends and adapted to be separably connected together, and a screw carried by one of said members and adapted to bear against one of the heads to buckle the toggle, said head having a lateral stop for the end of the screw.

4. The combination with hose-coupling

heads provided with interlocking means whereby the heads are held together normally, of a toggle comprising members pivotally connected with the heads near their remote ends and adapted to be separably connected together, and a screw carried by one of said members and adapted to bear against one of the heads to buckle the toggle, said head having a lateral stop with an inclined or cam surface to cooperate with the end of the screw.

5. The combination with hose-coupling heads provided with interlocking means whereby the heads are held together normally, of a toggle comprising members pivotally and loosely connected with the heads near their remote ends and having a stud on one adapted to enter an eye in the other whereby the members may be separably connected, and means to buckle the toggle.

6. The combination with hose coupling heads provided with interlocking means whereby the heads are held together normally, of a toggle comprising members pivotally and loosely connected with the heads near their remote ends and having each an eye and stud whereby the members may be separably connected, and a screw carried by one of the members and adapted to bear against one of the heads to buckle the toggle.

This specification signed and witnessed this 29th day of January, A. D., 1910.

HENRY M. ROBERTSON.

Signed in the presence of—

J. H. REMICK,

JOEL LILLIEDAHL.