R. J. ABBOTT.

HOSE COUPLING.

APPLICATION FILED NOV. 30, 1915.

1,190,068. Patented July 4, 1916.

Fig. 1.

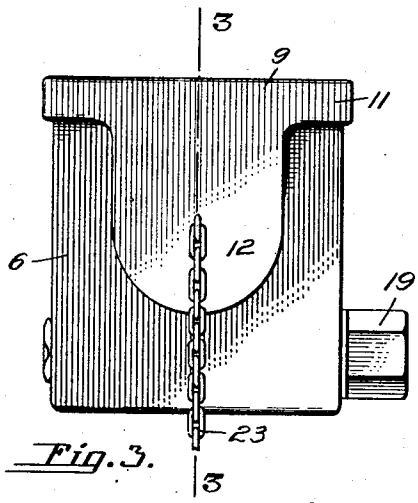


Fig. 2.

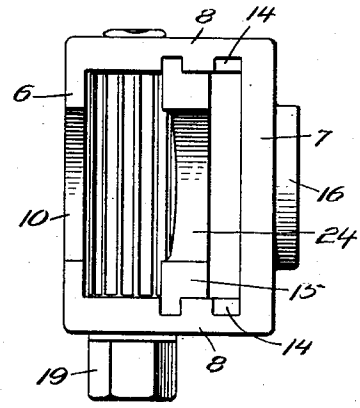


Fig. 3.

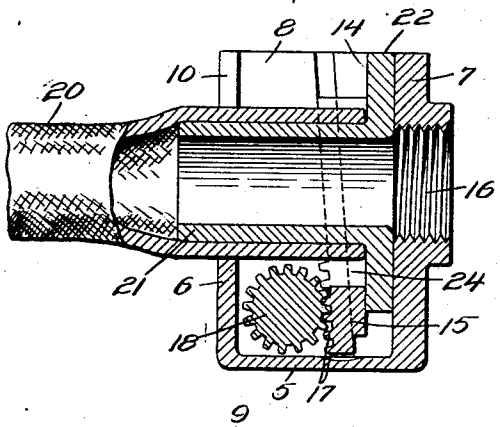


Fig. 4.

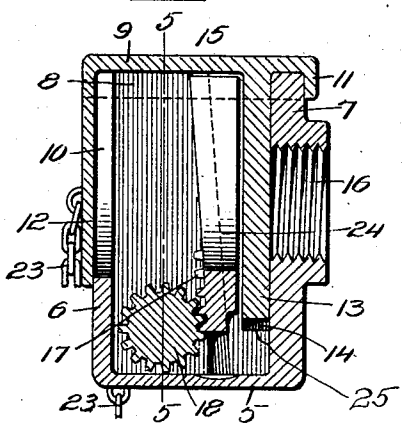


Fig. 5.

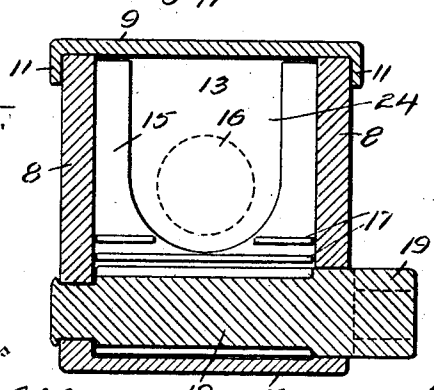
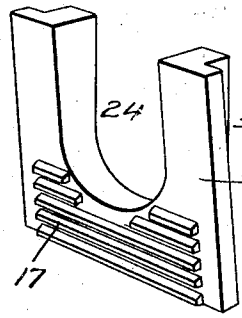


Fig. 6.



Witnesses

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HOSE-COUPLING.

1,190,068. Specification of Letters Patent. Patented July 4, 1916.

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To all whom it may concern:

Be it known that I, ROBERT J. ABBOTT, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Hose-Couplings, of which the following is a specification.

Generally stated, this invention comprehends the provision of a hose coupling primarily designed for use in conjunction with a fire plug, hydrant or the like and by means of which the hose can be quickly associated therewith.

The invention aims to provide a coupling in the nature of an attachment for the plug, which when associated therewith forms a part thereof, and constructed to receive the connecting end of the hose and effectively clamp the latter in operative position with relation to the plug.

Other important objects of the invention will later appear as the following description is read in connection with the accompanying drawing, the invention residing in the construction, combination and arrangement of parts as fall within the scope of what is claimed.

In the drawing forming part of this specification like numerals of reference indicate similar parts throughout the several views and wherein:—

Figure 1 is a front elevation of the device. Fig. 2 is a top plan view thereof with the cover removed. Fig. 3 is a sectional view taken on line 3—3 of Fig. 1 showing the manner of coupling the hose. Fig. 4 is a similar view with the hose removed and the cover in position. Fig. 5 is a sectional view taken on line 5—5 of Fig. 4. Fig. 6 is a perspective view of the sliding wedge.

Before entering into a detail description of what is shown in the annexed drawing, I desire to have it understood that I herein illustrate one embodiment of the invention, and do not limit myself to this precise construction and arrangement of parts, as various changes may be resorted to when desired as fall within the scope of what is claimed. However in this particular instance use is made of a substantially box-like receptacle including a bottom 5, front and rear walls 6 and 7 respectively, side walls 8 and a cover 9. The front wall 6 is provided with a relatively large U-shaped passage indicated at 10 which opens at the upper edge of the front wall as shown, and provides an entrance passage for the hose into the receptacle for the purpose to be hereinafter described. The cover 9 has a depending flange 11 embracing the upper edges of the respective walls of the receptacle, and further provided with depending spaced parallel extensions 12 and 13 respectively. When the cover is associated with the receptacle, the extension 12 projects below the passage 10, and is of proper dimensions to wholly close said passage to eliminate access being had to the interior of the receptacle by unauthorized persons, while the extension 13 is slidably fitted within alined grooves 14 formed in the opposed side walls 8. The extension 13 is adapted to be engaged by a wedge 15 adjustably mounted within the receptacle and thereby hold the cover immovably positioned upon the receptacle. As shown in Fig. 4 the cover has just been associated with the receptacle, with the wedge 15 in normal position, but as the wedge is adjusted or lowered it is moved into engagement with the extension 13 for the purpose hereinabove mentioned.

The rear wall 7 of the receptacle is provided with an interiorly threaded opening 16 for threaded engagement with the usual outlet nipple formed on fire plugs, hydrants or the like, but not herein shown. When the receptacle is associated with the plug in this manner, it forms a permanent part thereof, the opening 16 being disposed in alinement with the entrance passage 10 in the opposed wall as shown.

Slidably fitted within alined grooves formed in the opposed side walls 8, is the wedge shaped member 15 having one side thereof provided with a rack surface 17 with which is operatively associated a pinion 18, the latter being co-extensive in length with the width of the wedge, and journaled in the opposite side walls 8 adjacent the bottom of the receptacle. One end of the pinion projects beyond the receptacle and is provided with an angular surface 19 to accommodate a wrench or other suitable tool, by means of which the pinion is rotated to adjust the wedge for the purpose to be presently described. It might here be stated however that the hose 20 adapted to be coupled to the plug has fitted in one end thereof a metallic sleeve 21 which latter is formed to provide a squared head or flange 22, to permit the hose to be clamped in the manner hereinafter set forth.

Now when use of the plug is desired, the pinion 18 is rotated in the proper direction to elevate the wedge 15, which latter abuts the under side of the top of the cover. On further rotation of the pinion, the cover is elevated a slight distance to permit a proper grip to be obtained upon the cover with a view of removing the same. It is of course to be understood that after the cover has been removed the wedge-shaped member remains in elevated position. The cover of course is secured to the plug by means of a chain 23 so that the cover may be quickly removed but retained in convenient reach of the operator.

Subsequent to the removal of the cover, the flange 22 on the end of the hose is introduced from the top of the receptacle into the groove 14 and lowered to its final position, which brings the hose into communication with the outlet nipple of the plug, the flange 22 abutting against the lower wall of the groove 14, which limits the adjustment of the hose in this direction. Subsequent to arranging the hose in its final position illustrated in Fig. 3, the wedge shaped member 15 is adjusted or lowered to its active position where it effectively clamps the flange 22 of the hose therebetween and the rear wall of the receptacle, thus immovably holding the connecting end of the hose operatively positioned with relation to the outlet nipple of the plug and providing a fluid tight joint between said parts. By reason of this construction and operation a fire hose may be quickly and easily associated with the plug, with a saving of time which is a matter of vital importance in the performance of these duties.

The hose can be just as quickly and easily removed from the plug by adjusting the wedge 15 in the direction out of engagement with the flange 22, thereby releasing the latter to permit the hose to be lifted out of the receptacle. The cover is then placed upon the receptacle, and the wedge subsequently adjusted to normal position in engagement with the flange for the purpose of locking the cover in operative position.

It is believed that the nature and advantages of the invention will be thoroughly understood from the foregoing description without requiring a more extended explanation, and therefore the same has been omitted.

What is claimed is:—

1. A hose coupling for fire plugs comprising in combination with a hose having a flange at one end a fixed support associated with said plug, a wedge shaped member capable of vertical adjustment with respect to said fixed support and coöperating with the latter to clamp the flanged end of the hose in engagement with the outlet nipple of the plug, and means for controlling the movements of said member.

2. A hose coupling for fire plugs comprising a fixed support associated with said plug, a relatively movable hose support mounted upon said fixed support and having a rack surface, and a pinion operatively engaging said surface for adjusting the movable support to clamp the adjacent end of the hose in engagement with the outlet nipple of said plug.

3. A hose coupling for fire plugs comprising a fixed support associated with said plug, a relatively movable hose support mounted upon said fixed support and having a rack surface, a pinion operatively engaging said surface for adjusting the movable support to clamp the adjacent end of the hose in engagement with the outlet nipple of the plug, means for rotating said pinion, and means for limiting the adjustment of said movable support.

4. The combination with a hose having a flange on one end, of means for coupling said end to the outlet of a fire plug, said means comprising a support fixed upon the plug, a relatively movable wedge-shaped member mounted upon said fixed support and adapted to clamp said flange therebetween said fixed support with the hose in communication with said outlet, and means for operating said wedge.

5. The combination with a hose having a flange on one end, of a coupling for connecting said end to a fire plug, consisting of a receptacle having an opening in one wall thereof for the reception of the outlet nipple of the plug, the opposed wall thereof having an entrance passage for the hose into the receptacle, a movable member arranged within the receptacle to receive the adjacent end of the hose, means for adjusting said member to clamp said end of the hose in alinement with the outlet nipple of the plug, and a cover for said receptacle.

6. Means for coupling a hose having a flange on one end to a fire plug, including a receptacle fitted upon the outlet nipple of said plug and communicating therewith, one wall of said receptacle being provided with an entrance passage for the hose, two opposed walls of the receptacle having alined grooves, a cover on said receptacle, an extension on said cover slidably fitted in said grooves, said grooves being adapted to receive said flange on the hose subsequent to the removal of said cover, and means alternately engaging said extension of the cover to hold the latter in operative position, and firmly clamping the said flange in position to maintain the adjacent end of the hose in communication with the outlet.

7. Means for coupling a hose having a flange on one end, to a fire plug, comprising a receptacle fitted upon the outlet nipple of the plug and communicating therewith, one wall of said receptacle being provided with

an entrance passage for the hose, two opposed walls of the receptacle having alined grooves, a cover for said receptacle, spaced parallel extensions on said cover, one normally closing said passage, and the other slidably fitted in said grooves, said grooves being adapted to receive said flange on the hose subsequent to the removal of said cover, and means for firmly clamping said flange in fixed position to maintain the adjacent end of the hose in communication with said outlet of the plug.

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

ROBERT J. ABBOTT.

Witnesses:
EDW. YEAGER,
BENNETT S. JONES.

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