No. 701,669. Patented June 3, 1902.

J. E. ATKINSON.

HOSE COUPLING.

(Application filed Sept. 5, 1901.)

(No Model.)

Fig. 1.

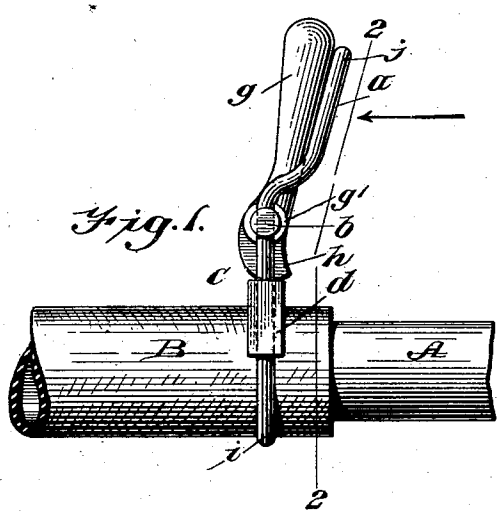


Fig. 2.

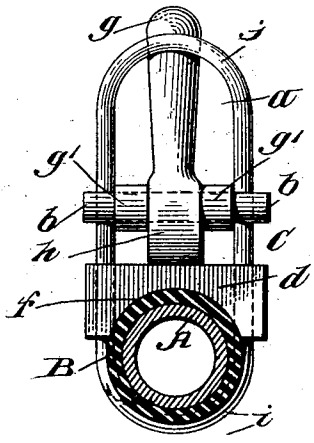


Fig. 3.

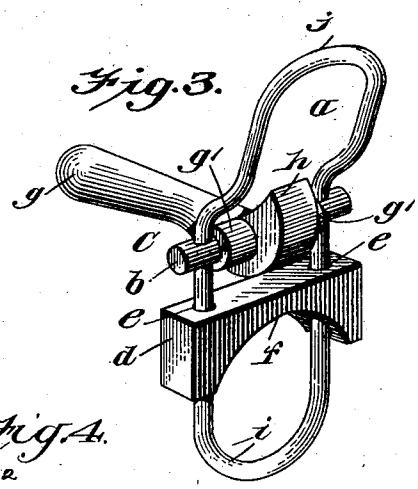
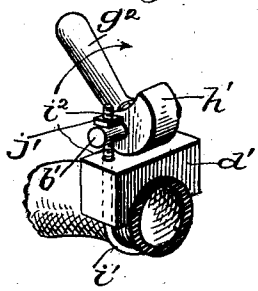


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES EDWIN ATKINSON, OF STONEWALL, CANADA.

HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 701,669, dated June 3, 1902.

Application filed September 5, 1901. Serial No. 74,421. (No model.)

To all whom it may concern:

Be it known that I, JAMES EDWIN ATKINSON, a citizen of Canada, residing at Stonewall, in the municipality of Rockwood and Province of Manitoba, Canada, have invented new and useful Improvements in Hose-Couplings, of which the following is a specification.

My invention relates to improvements in hose-couplings, and contemplates the provision of a simple, easily-operated, and reliable coupling through the medium of which a hose may be detachably connected in a perfectly water-tight manner to metal pipes, smooth faucets, and the like.

With the foregoing in mind the invention will be fully understood from the following description and claims, when taken in conjunction with the accompanying drawings, in which—

Figure 1 is an elevation illustrating my improved coupling as fastening a hose on a pipe-section. Fig. 2 is a transverse section taken on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the coupling removed, and Fig. 4 is a view of a modified coupling.

In the said drawings similar letters of reference designate corresponding parts in all of the views, referring to which—

A is a pipe-section.

B is a hose placed on the end of the pipe-section, and C is my improved coupling. This coupling in the preferred embodiment of the invention is formed entirely of metal and comprises an open frame *a*, a cross-bar *b*, interposed between and suitably fixed on the side bars of said open frame, a clamping-block *d*, having apertures *e* loosely receiving the portions of the side bars of the frame below the cross-bar *b* and also having its lower side concave, as indicated by *f*, to snugly fit over and conform to the hose, as shown in Fig. 2, a lever *g*, fulcrumed on the cross-bar *b* and having a cam-head *h* arranged to engage the upper side of the clamping-block *d*, and spacing-collars *g'*, arranged on the bar between the lever and the side bars of the frame *a* and adapted to hold the lever against lateral play. The portion of the open frame below the intermediate cross-bar constitutes a yoke *i*, which has for its purpose to receive the hose B after the manner best shown in Fig. 2, while the portion *j* of said frame above the cross-bar is inclined or pitched slightly toward the right and is designed to serve as a stop for the lever *g* when the same is thrown up into the position shown in Fig. 1.

In using my improved coupling the hose is passed through the yoke *i* of frame *a* below the clamping-block *d* and is then slipped on the pipe, faucet, or the like, after which the lever *g* is thrown up into the position shown in Figs. 1 and 2. When the lever is thus adjusted, its cam-head *h* will crowd the block *d* down on the hose, and the hose will be securely clamped between the block and the lower end of the yoke and its connection to the pipe or the like rendered perfectly water-tight. It will also be observed that when the upper portion of the lever is swung beyond the vertical plane of the bar *b* and rests against the upper portion *j* of the frame there is no liability of it casually leaving such position and relieving the pressure on the hose. When, however, it is desired to disconnect the hose from the pipe or other device on which it is placed, the same may be readily accomplished by throwing the lever toward the left and then drawing the hose off the pipe.

When desirable, two of my improved couplings may be used to connect two sections of hose to a short pipe section or union interposed between them.

The modified coupling shown in Fig. 4 is designed more particularly for use on large hose and comprises a yoke *i'*, designed to receive a hose and having the ends of its side bars threaded, as indicated by i^2, a clamping-block *d'*, similar to the clamping-block in Figs. 1 to 3, movable on the side bars of the yoke, nuts *j'*, mounted on the threaded ends of the yoke, a cross-bar *b'*, disposed below the nuts *j'* and having apertures loosely receiving the side bars of the yoke, and a lever *g'*, fulcrumed on said cross-bar *b'* and having a cam-head *h'*, arranged to engage the upper side of the clamping-block *d'*. When the lever *g'* is thrown in the direction indicated by arrow into a horizontal position, its cam-head will crowd the block *d'* down on a hose arranged in the yoke, and thereby securely clamp the hose on the pipe, nipple, or the

like arranged therein, while when said lever is swung up into the position shown the hose will be relieved of pressure and may then be readily removed from the pipe or nipple. The coupling shown in Fig. 4 is designed, as stated, for use on large hose, and the nuts j' are provided in order that the cross-bar b' may be moved nearer the bight of the yoke to compensate for wear of the hose arranged in the yoke.

It will be appreciated from the foregoing that in addition to being simple, efficient, and susceptible of quick and easy operation my improved coupling is very compact and embodies no parts that are liable to get out of order after a short period of use.

I have entered into a detailed description of the construction and relative arrangement of parts embraced in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of the same. I do not desire, however, to be understood as confining myself to such specific construction and arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my claims.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The hose-coupling described comprising the yoke adapted to receive a hose in its bight, a cross-bar bridging the yoke and bearing a cam-lever, and the clamping-block movable on the side bars of the yoke between the bight thereof and the cam-lever; said clamping-block being separate from the cam-lever, and arranged to be pressed and held by the same against the hose.

2. In a hose-coupling, the combination of a frame having a yoke at one end and an inclined portion at its opposite end, a clamping-block movable on the side bars of the yoke, and a lever fulcrumed in the frame and having a cam-head for engaging the clamping-block; said lever being adapted when rocked to carry the cam-head into engagement with the clamping-block to bring up against the inclined portion of the frame.

3. The combination of a pipe-section, a hose arranged on and receiving the end of the same, and the coupling described comprising the open frame having the yoke at one end receiving the hose, and the inclined portion at its opposite end, the clamping-block movable on the side bars of the yoke and having the concave under side, the cross-bar connecting the side bars of the frame above the clamping-block, the lever fulcrumed on said cross-bar and having a cam-head to engage the clamping-block; said lever being adapted when rocked to carry the cam-head into engagement with the clamping-block to bring up against the inclined portion of the frame, and spacing-collars surrounding the cross-bar and interposed between the sides of the lever and the side bars of the frame.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES EDWIN ATKINSON.

Witnesses:
J. C. CULMIN,
THOS. BUCKPITT.