W. W. MARSDEN.
Hose-Coupling.

No. 198,402. Patented Dec. 18, 1877.

Fig. 1.

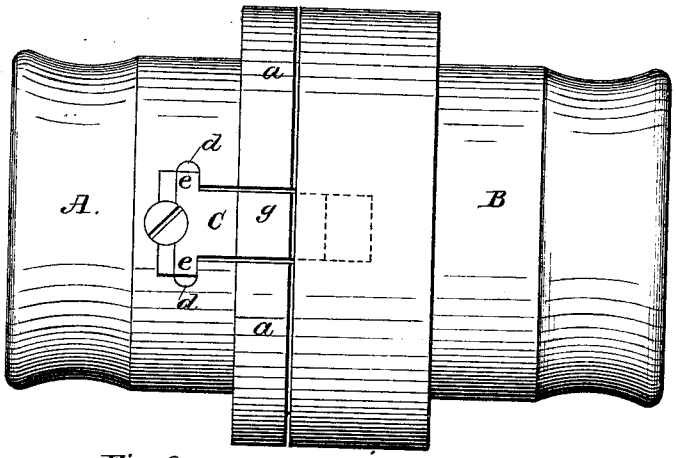
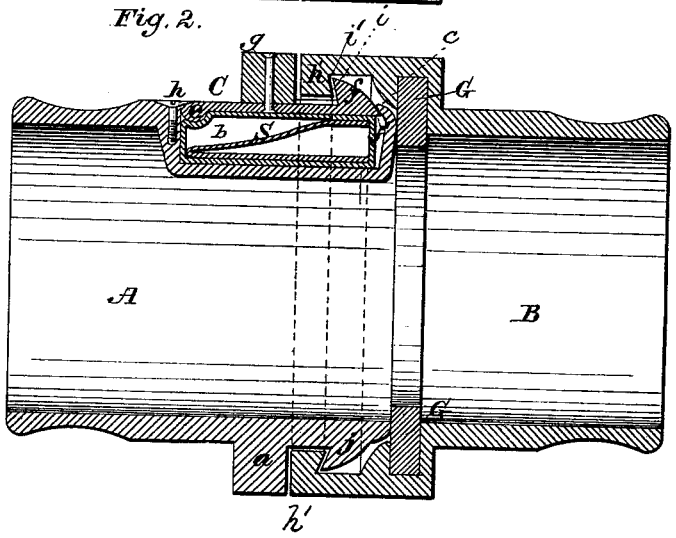


Fig. 2.



Attest.

Villette Anderson

R. J. Masi.

Inventor.

Wm. W. Marsden

by Edw. Anderson

Atty.

UNITED STATES PATENT OFFICE.

WILLIAM W. MARSDEN, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN H. MARSDEN, OF SAME PLACE.

IMPROVEMENT IN HOSE-COUPLINGS.

Specification forming part of Letters Patent No. **198,402**, dated December 18, 1877; application filed October 20, 1877.

To all whom it may concern:

Be it known that I, WILLIAM W. MARSDEN, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and valuable Improvement in Hose-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my improved coupling, and Fig. 2 is a longitudinal central section thereof.

This invention has relation to improvements in hose-couplings; and the nature of the invention consists in combining, with the female sleeve having an inwardly-projecting flange upon its front end, a male sleeve having a stud and spring-catch adapted to engage the said flange successively, and to unite the said sleeves firmly together.

It also consists in a spring seated in the recess of the catch, and covered in by a water-proof material, whereby water is prevented from getting into the spring, and by freezing render the said spring inoperative.

It also consists in combining, with a sleeve having an oblong recess and a vibrating catch seated therein, a spring placed under the said catch in the recess, which, by yielding, allows the head of the catch to enter the female sleeve and engage its ledge or flange, and by its reaction hold the said catch to its engagement therewith.

It also consists in combining, with the female sleeve having an undercut edge flange, a catch upon the male sleeve having a correspondingly undercut or inclined head, whereby the engagement of the said catch and flange is rendered very reliable, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A indicates the male, and B the female, sleeve of my improved coupling. The former is provided with an exterior flange, *a*, against which the front edge of the latter abuts, and with an oblong rectangular recess, *b*, as shown in Fig. 2, of considerable depth, extending from about the middle of the tail-piece through the flange aforesaid nearly to the front edge of the sleeve. The front end of this recess is formed with an overhanging lip, *c*, Fig. 2, for a purpose hereinafter explained. Near the rear end of this recess are two shallow concave depressions, *d*, in which the journal-arms *e* of a catch, C, have their bearings. The catch C is of the same length as the recess, and has upon its front end a beveled head, *f*, having a projecting lip, *f'*, that engages under the overhanging edge *c* of the said recess, and a rectangular finger-plate, *g*, that completes the flange *a*, when it is cut away by the recess *b* aforesaid.

The front end of the catch is confined in its recess by means of the lip *f'* and the overhanging lip *c*, and its rear end by a screw, *h*, passing into the tail-piece of the male sleeve, with its head engaged in a countersink formed partly in the head and partly in the catch. Under the catch is a spring, S, preferably of > form, which is compressed when the former is introduced into its seat, and by its reaction keeps the outer edge of the said catch flush with the sleeve, in which position the beveled head aforesaid projects above the sleeve, and stands off from the flange *a* a distance equal to the thickness of an inwardly-projecting flange or ledge, *h'*, upon the front edge of the female sleeve B. The rear wall of this head is inclined, as shown at *i*, Fig. 2, and the inner edge *i'* of the flange *h'* is also inclined. Upon the opposite side of the sleeve A from the catch is a strong stud, *j*, that is spaced off from the flange *a* the same distance as the head *f*, and, like it, is provided with an inclined rear end. In coupling the sleeves A B, this stud is introduced into the sleeve B and engaged with its flange *h'*. The said sleeves are then thrust together, thereby causing the catch to be pushed down into its recess until the head has passed in beyond the flange, when it is sprung up by the spring S, and its head engages the flange aforesaid. The contiguous edges of the head and flange being inclined, their engagement is rendered very secure and their disengagement almost impossible. When thus coupled, the end of the male sleeve presses against a rubber packing-ring, G, in the female sleeve, thus preventing leakage. As shown in Fig. 2, the spring S is covered in by a flexible water-proof material, which excludes water from the spring.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the male and female sleeve of a hose-coupling, of the fixed catch and a spring-catch on opposite sides of the coupling, substantially as specified.

2. The combination, with the female sleeve B, having the flange *h'*, of the male sleeve A, having the fixed stud *j*, and the yielding and reactive catch C, substantially as specified.

3. The combination, with the sleeve A, having the oblong recess *b*, of the vibrating catch C in said recess, and the spring between the said catch and the bottom of the recess, substantially as specified.

4. The combination, with the male and female sleeves A B and a vibrating catch recessed in the former, of the spring S, having a flexible water-proof envelope, substantially as specified.

5. The combination, with the sleeve B, having the edge flange *h'*, with inclined or undercut rear edge *i'*, of the sleeve A, having the resilient catch C, with head *f*, provided with an inclined or undercut rear edge, *i*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

W. W. MARSDEN.

Witnesses:
E. C. WEAVER,
GEO. C. POULTON.