C. F. WILSON & J. OLDENBURG.

HOSE COUPLING.

APPLICATION FILED MAY 8, 1909.

948,437.

Patented Feb. 8, 1910.

Fig. 1.

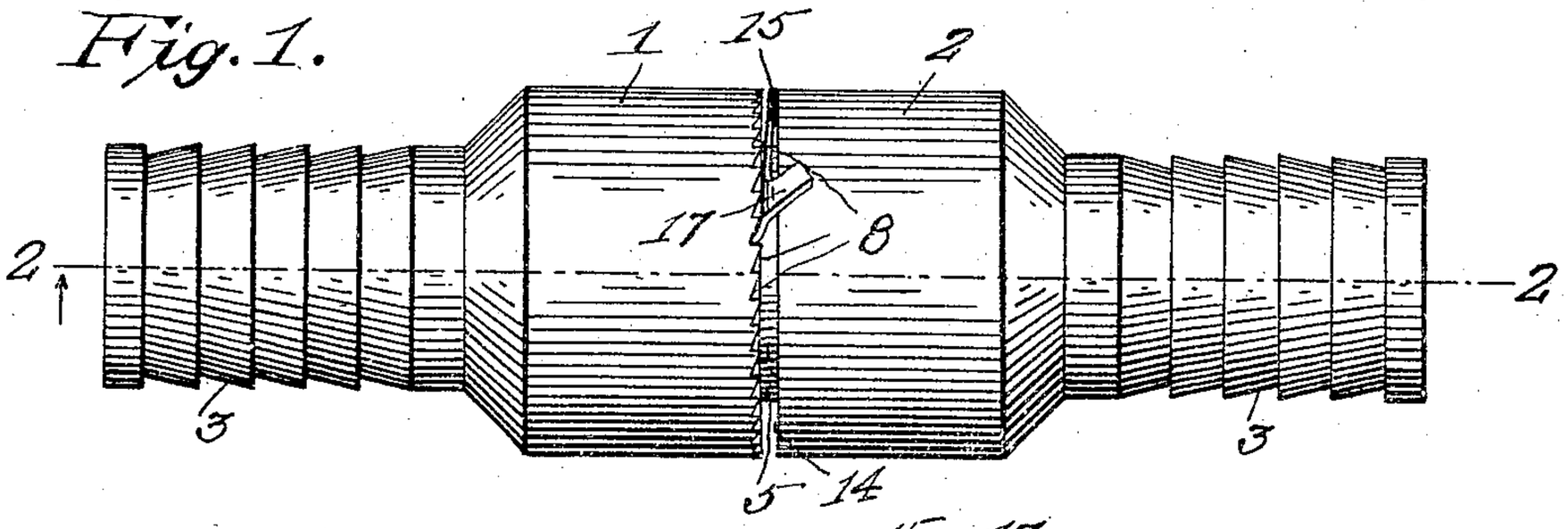
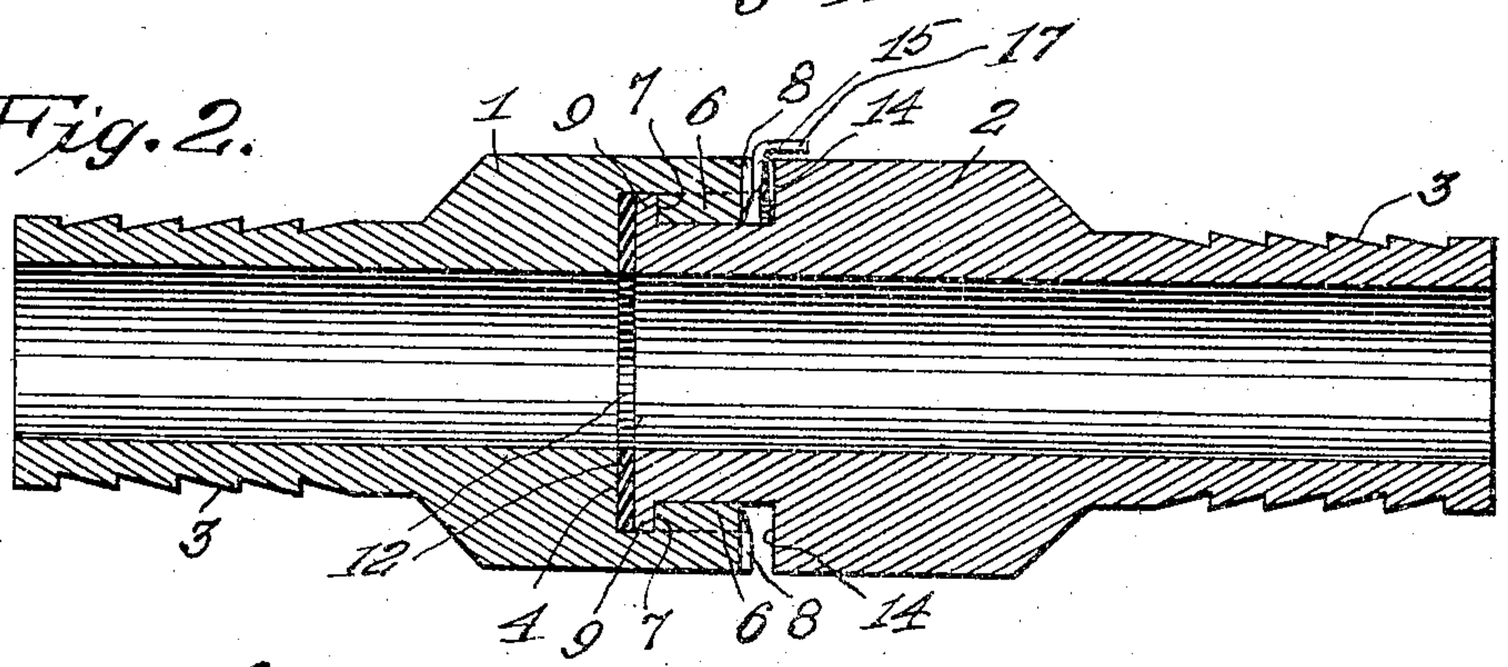


Fig. 2.



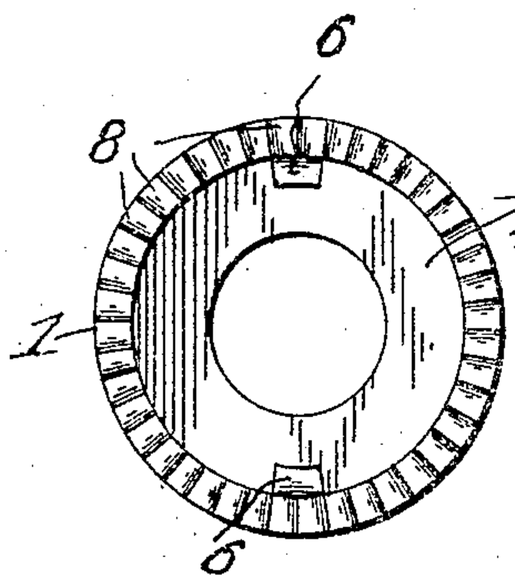


Fig. 3.

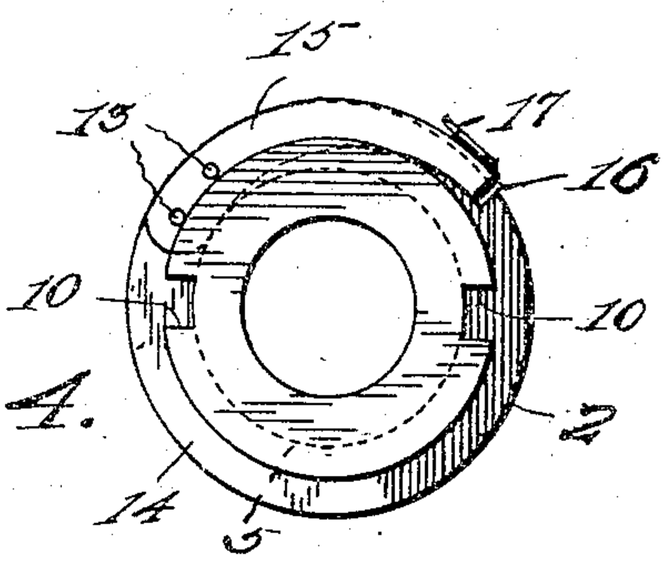


Fig. 4.

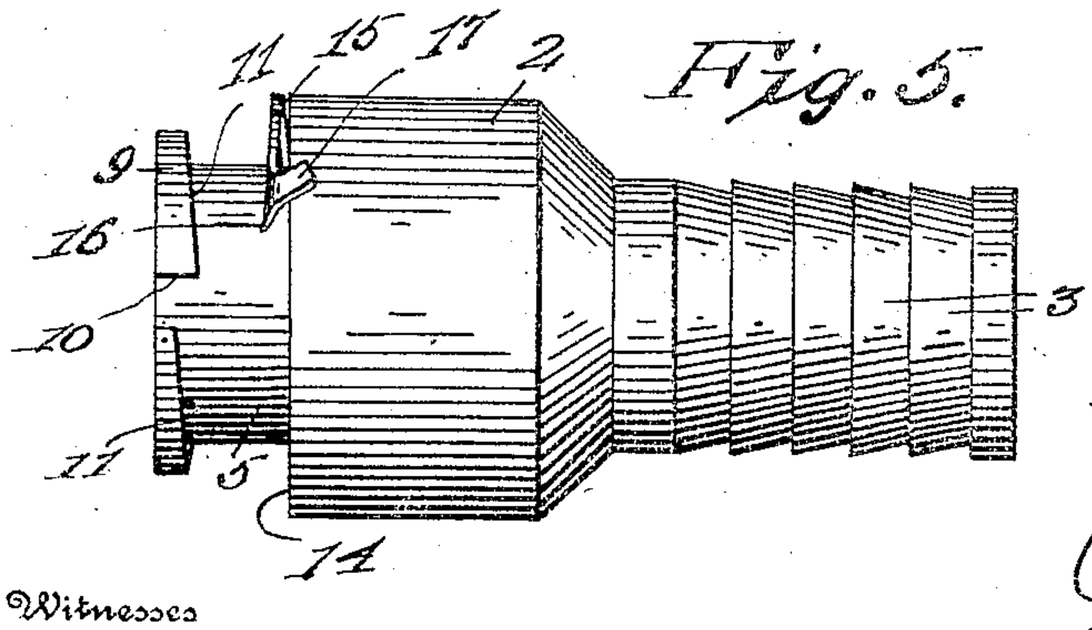


Fig. 5.

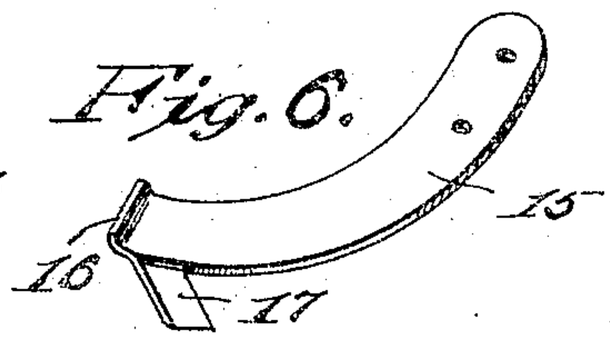


Fig. 6.

Witnesses

James F. Brown

E. M. Ricketts

Inventors

C. F. Wilson

J. Oldenburg

By Watson E. Coleman

Attorney

UNITED STATES PATENT OFFICE.

CLARENCE F. WILSON AND JOHN OLDENBURG, OF JOHNSTOWN, COLORADO.

HOSE-COUPLING.

948,437. Specification of Letters Patent. Patented Feb. 8, 1910.

Application filed May 8, 1909. Serial No. 494,857.

To all whom it may concern:

Be it known that we, CLARENCE F. WILSON and JOHN OLDENBURG, citizens of the United States, residing at Johnstown, in the county of Weld and State of Colorado, have invented certain new and useful Improvements in Hose-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in detachable hose couplings and more particularly to one having improved means for locking its members or sections in engaged position.

The object of the invention is to provide a simple and practical device of this character in which the two members or sections will be effectively locked together so that they cannot possibly become casually or accidentally disconnected.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the improved hose coupling; Fig. 2 is a longitudinal section taken on the plane indicated by the line 2—2 in Fig. 1; Figs. 3 and 4 are end views of the two members of the coupling; Fig. 5 is a side view of one of the members; and Fig. 6 is a detail perspective view of the spring locking pawl.

Referring more particularly to the drawings 1 and 2 denote the two detachable members or sections of the coupling, the outer ends of which sections may be ribbed or corrugated, as shown at 3, to receive hose sections or may be otherwise constructed and connected in any manner to the hose pipes or conductors united by the coupling. In the outer end of the member 1 is formed a socket 4 for the reception of the reduced end 5 of the other member 2. Said socket or recess 4 is circular in shape and has upon its inner wall at diametrically opposite points inwardly projecting lugs 6, the inner end faces of which form shoulders 7. Provided upon the outer end of the member 1 and preferably extending entirely around its edge is a series of ratchet teeth 8, the purpose of which will presently appear.

The reduced end 5 of the member 2 is cylindrical and has provided upon its end an annular radially projecting flange 9 cut away or recessed at diametrically opposite points, as shown at 10, to divide it into two substantially semi-circular sections, as will be understood on reference to Figs. 4 and 5 of the drawings. The recesses 10 are of such size as to receive the lugs 6, which latter after passing through said recesses are brought behind the flange sections 9 by rotating the two members relatively to each other. In order to draw the two members together when thus turned to unlock the rear faces of the flange sections 9, which latter form shoulders for the engagement of the shoulders 7 on the lugs 6, are inclined circumferentially, as shown at 11 in Fig. 5, whereby said flange sections 9 are wedge-shaped or larger at one end than at the other. By constructing the flange sections 9 in this manner, it will be seen that when the two members are telescoped or engaged and then turned with respect to each other the wedge-shape of the flange sections 9 will draw the two members closely together to compress a packing ring or washer 12 of leather, rubber or the like arranged in the bottom of the recess or cavity 4, thereby providing an effective fluid tight joint or connection between the two members. Secured by screws or other fastenings 13 upon the annular shoulder 14 formed by reducing the outer end of the member 2, is a spring 15 which forms a locking pawl to co-act with the ratchet teeth 8 on the member 1 for the purpose of locking the two members against rotation with respect to each other. Said pawl 15 is in the form of a leaf spring curved longitudinally so that it will be disposed entirely or almost entirely beneath the outer surfaces of the two members and having one of its ends fixed, as at 13, and its free end bent angularly, as shown at 16, to engage the ratchet teeth 8. If desired, a laterally bent finger piece 17 may be formed upon the free end of the dog so as to project outside of the space in which the dog lies to permit the end 16 of the latter to be sprung out of engagement with the ratchet teeth when it is desired to uncouple the two members.

From the foregoing it will be seen that the invention provides an exceedingly simple and practical coupling device of this character which may be produced at a small cost, which will provide an effective fluid tight connection between two sections of a pipe, hose, or other conductor and the parts or

members of which may be quickly and easily connected and disconnected and when connected will be effectively locked against accidental separation.

While the preferred embodiment of the invention has been shown and described in detail, it will be understood that various changes in the form, proportion and arrangement of parts and in the details of construction may be resorted to within the spirit and scope of the invention.

Having thus described the invention what is claimed is:

A hose coupling comprising a socket member having a cylindrical end formed with a cylindrical socket of greater diameter than the bore of the member to provide a shoulder, an annular series of radial ratchet teeth formed on the end of said member at its outer edge, opposing inwardly projecting lugs formed on the wall of said socket, a second member having a reduced end to enter said socket and to provide an annular shoulder, semi-circular radially projecting flanges formed on the extremity of said reduced end of the second member, the opposing ends of said flanges being spaced apart to receive said lugs between them, and the inner faces of said flanges being inclined to provide cam shoulders for engagement by said lugs whereby the two members will be moved longitudinally toward or from each other when turned with respect to each other, a packing on the shoulder in the socket of the first member, and a longitudinally curved pawl formed from a resilient metal plate and having one end secured to said shoulder of the second member, said pawl lying between the two members and having its extremity bent angularly to co-act with the ratchet teeth on the first member, said free end of the pawl being also formed at its outer edge with an integral tongue bent to form a finger piece disposed upon the exterior of the second member.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

CLARENCE F. WILSON.
JOHN OLDENBURG.

Witnesses:
ELIZABETH KOENIG,
W. A. BESEL.