A. E. DERBYSHIRE.

HOSE COUPLING.

APPLICATION FILED OCT. 1, 1912.

1,096,690. Patented May 12, 1914.

Fig. 1.

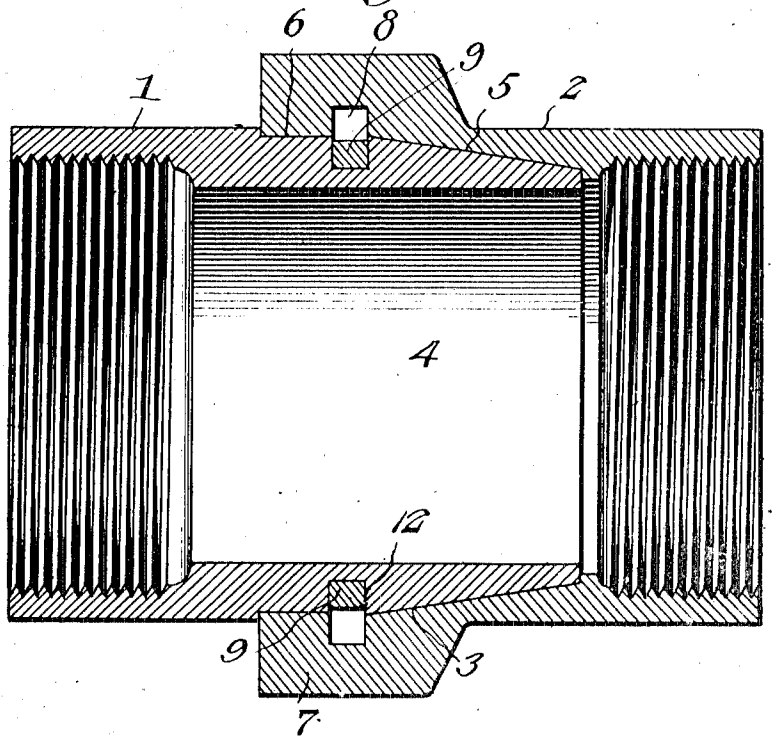
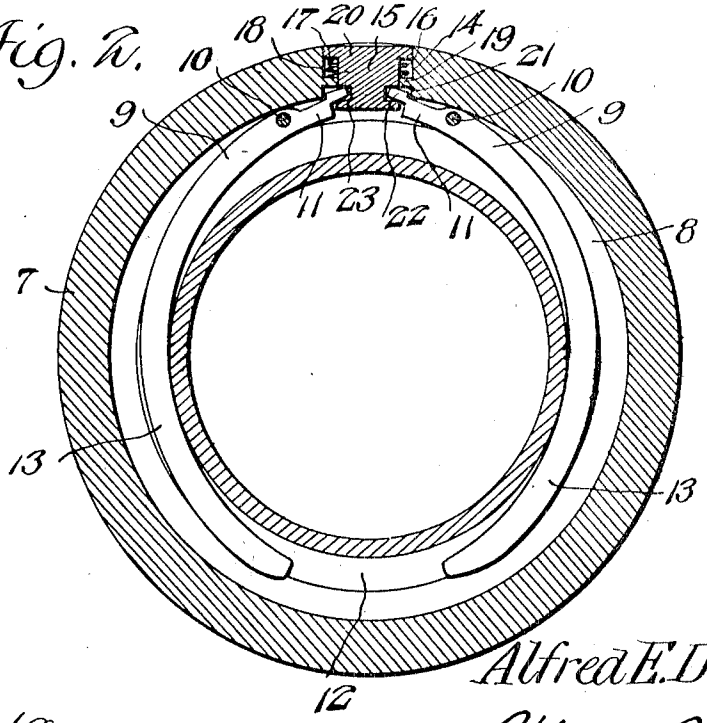


Fig. 2.



Witnesses

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ALFRED E. DERBYSHIRE, OF LANSING, KANSAS, ASSIGNOR OF ONE-HALF TO J. C. DAILEY, OF LEAVENWORTH, KANSAS.

HOSE-COUPLING.

1,096,690. Specification of Letters Patent. Patented May 12, 1914.

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To all whom it may concern:

Be it known that I, ALFRED E. DERBYSHIRE, a citizen of the United States, residing at Lansing, in the county of Leavenworth and State of Kansas, have invented new and useful Improvements in Hose-Couplings, of which the following is a specification.

This invention relates to hose couplings, the primary object thereof being to provide means for locking the coacting parts of the coupling together automatically upon bringing said parts into operative engagement with each other.

A further object of the invention is to provide means adapted to be operated manually to release the said locking means, both the releasing and locking means being disposed within the coupling so as not to present an obstruction and which may be readily operated from the exterior thereof.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a longitudinal sectional view through the device; and Fig. 2 is a transverse sectional view therethrough.

Referring to the drawings, the numerals 1 and 2 designate the male and female members of the coupling, the latter member being provided with a socket 3 for the reception of the reduced end 4 of the former member. The innermost portion 5 of the socket 3 is tapered whereas the outermost portion 6 is cylindrical in shape, the reduced end 4 of the member 1 being conformed strictly in shape thereto. The female coupling member 2 is slightly enlarged, as at 7, at the mouth of its recess 3 and is provided interiorly thereof with an annular recess 8, in which are adapted to be pivoted the arcuate locking members 9. These locking members are pivoted, by pins 10, adjacent the operating ends 11 thereof and are adapted to swing laterally within the member 2. The member 1 is provided adjacent the point of juncture between the cylindrical and tapered portions of its retained end, with an interior annular recess 12 for the reception of the longer arms 13 of the locking members 9. The enlarged portion 7 of the member 2 is further provided in suitable proximity to the operating ends or arms 11 of the locking members with a radial opening 14, in which is mounted a slidable operating button 15. The outer portion 16 of the opening 14 is adapted for the reception of a helical spring 17, which surrounds the body portion 18 of the button 15, and which is interposed between the annular flange 19 formed upon the inner periphery of the said opening and the enlarged head 20 formed on the outer end of the button. The inner end portion 21 of the opening 14 is adapted for the reception of the reduced ends 22 of the operating arms of the locking members. These reduced portions 22 are engageable within an annular groove 23 provided in the inner end of the button 15. It will thus be seen that, upon the button 15 being forced inwardly, the operating arms of the locking members will be thrust inwardly and the engaging portions 13 will be oscillated outwardly in the groove or recess 8 provided in the member 2, thus removing them from locking engagement with the groove 12 in the member 1. This will permit the removal of the reduced portion 4 of the member 1 from the socket 3 in the member 2. Upon such detachment of the two coupling members, the button will be forced outwardly by the spring 17 and the engaging arms 13 of the locking members will be thrown inwardly into operative position. When it is desired to attach the coupling members together again, it is merely necessary to force the parts together, when the engaged portions 13 of the locking members will be forced upwardly, due to engagement with the tapered portion 5 of the reduced extremity of the member 1 and will close into engaging position within the groove or recess 12 in said extremity of the member 1 upon the arrival of the parts into completely closed position.

Having thus described my invention, what I claim is:—

A hose coupling comprising a substantially cylindrical female member having a longitudinal socket therein, and being provided with a peripheral groove within said socket, a cylindrical male member having a reduced end portion adapted to fit within the socket of the female member and provided with an encircling groove in its outer periphery for registration with the socket groove, the said female member being pro-

vided with a radial opening communicating with its socket groove, an annular flange formed within said opening, a push button mounted for radial movement within the said opening and being adapted to project inwardly of the flange and having an enlarged head formed upon its outer end, a helical spring surrounding the said push button and being interposed between its head and the outer face of the flange, the inner end of the button being provided with an encircling groove in its outer periphery, and an arcuate locking member mounted within the socket groove of the female member upon an axial pivot and having one of its arms terminally reduced and engaged within the push button groove.

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

ALFRED E. DERBYSHIRE.

Witnesses:
THOS. J. BOONE,
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