

(No Model.)

E. W. SHEPHERD.  
HOSE COUPLING.

No. 544,469.

Patented Aug. 13, 1895.

Fig. 1.

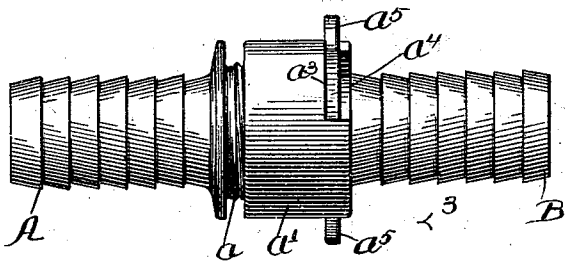


Fig. 2.

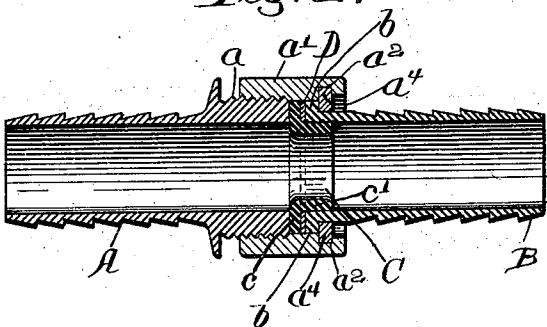


Fig. 3.

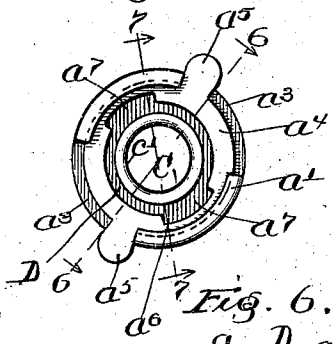


Fig. 4.

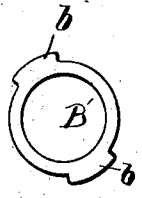


Fig. 5.

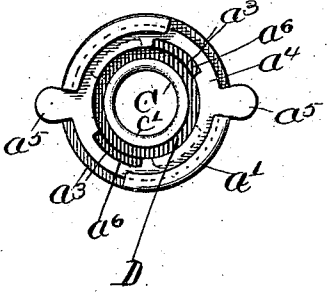


Fig. 6.

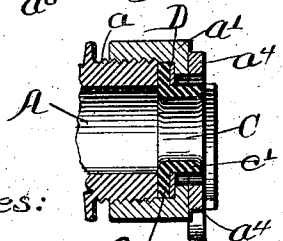
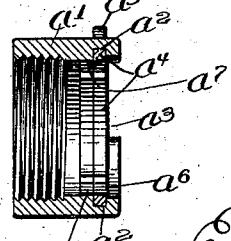


Fig. 7.



Witnesses:

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# UNITED STATES PATENT OFFICE.

EDWIN W. SHEPHERD, OF CHICAGO, ILLINOIS.

## HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 544,469, dated August 13, 1895.

Application filed September 4, 1894. Serial No. 522,072. (No model.)

To all whom it may concern:

Be it known that I, EDWIN W. SHEPHERD, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new useful Improvements in Hose-Couplings, of which the following is a specification.

My invention relates to certain improvements in hose couplings, the purpose of which is to produce a coupling which can be operated quickly and without twisting the hose and which will be water-tight and durable.

To such end my invention consists in certain features of construction, fully described in the following specification and pointed out in the appended claims.

The drawings illustrate my invention by means of seven figures, of which—

Figure 1 is a side elevation of a complete coupling embodying said invention. Fig. 2 is an axial diametrical section. Fig. 3 is an end elevation of one member of the coupling; Fig. 4, a similar view of the other member; Fig. 5, a view showing a different position of the member seen in Fig. 3; Fig. 6, a section in line 6 6 of Fig. 3, and Fig. 7 a section in line 7 7 in Fig. 3.

The coupling consists of the two end members A B, adapted for connection with the hose, as is customary. The member A is screw-threaded at  $a$  and provided with a collar  $a'$ , internally screw-threaded at one end to screw upon the member B, and provided at the other end with an undercut groove  $a^2$ . This groove extends partially around the collar, as seen in Figs. 3 and 5, upon the opposite sides, and between these portions the metal is cut away, as seen at  $a^3 a^3$ . In this groove is mounted an annular plate  $a^4$ , having ears  $a^5$  projecting through the cut-away portions sufficiently to be grasped by the hand. Upon the inner edge of the plate are two notches  $a^6$ , and corresponding notches  $a^7$  are cut in the collar beneath the plate to register with the notches in the former when the plate is in the position seen in Figs. 3 and 7.

The member B is provided at one end with oppositely arranged lugs  $b$ , fitted to the notches  $a^6 a^7$ , and said lugs are inserted in these notches in making the coupling and re-

tained there by turning the plate into the position seen in Fig. 5 to prevent the withdrawal of the lugs from the notches  $a^7$ . To insure the tightness of the joint against leakage, a pliable rubber washer C, having an annular portion  $c$  and a hollow cylindrical portion  $c'$ , is inserted, as seen in Fig. 2, in which position the member A is screwed directly upon the annular portion of the washer, forcing said portion against the rigid washer D, which bears upon the member B, and the cylindrical portion  $c$  of the washer extends into the member B and forms a water-tight joint with the same because of the lateral pressure of the water within the coupling.

The principal advantage of my invention is the ease with which it is manipulated, the durability of its parts, and the absolute freedom from leakage without necessarily requiring the parts to be clamped tightly together. The latter feature is due to the extension of the pliable washer within the member which is coupled to it, by reason of which the water is made to tighten the joint against itself, and thus any increase of pressure increases the force by which the joint is made.

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

1. The combination in a hose or pipe coupling, of two members provided with means for engagement whereby they may be interlocked against separation, and a pliable washer tightly secured in one of the members by means of an annular flange and having a tubular extension integral with said flange and adapted to extend into and fit closely within the other member.

2. The combination with the head, A, of the collar,  $a'$ , secured to the same and having the groove,  $a^2$ , the plate  $a^4$ , mounted in the groove and having the notches,  $a^6$ , the member, B, having the lug,  $b$ , fitted to said notches and the washer, C, having the annular portion,  $c$ , clamped between the member, A, and the collar and the cylindrical portion,  $c'$ , extending into the member, B, substantially as described.

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Witnesses:

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