

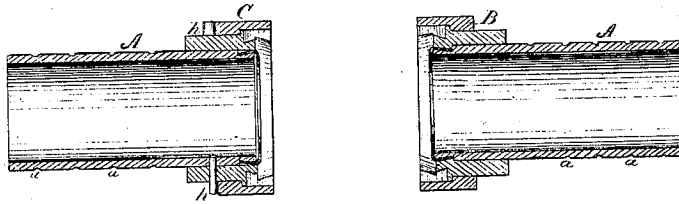
*C. H. Cushman,*

*Pipe Coupling.*

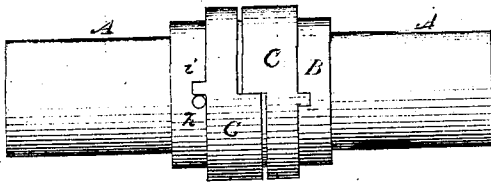
*No. 104,837.*

*Patented June 28, 1870.*

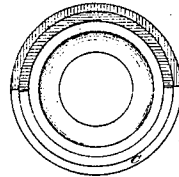
*Fig. 1.*



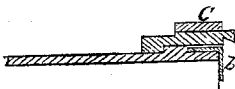
*Fig. 2.*



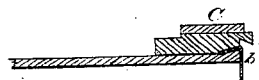
*Fig. 3.*



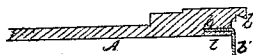
*Fig. 4.*



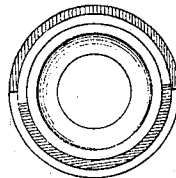
*Fig. 5.*



*Fig. 6.*



*Fig. 7.*



*C. H. Cushman*  
*Inventor.*

*Witnesses:*

*J. C. Conolly*  
*W. H. Burridge*

# United States Patent Office.

CHARLES H. CUSHMAN, OF ALEXANDRIA, VIRGINIA.

*Letters Patent No. 104,837, dated June 28, 1870.*

## IMPROVEMENT IN HOSE-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, CHARLES H. CUSHMAN, of Alexandria, in the State of Virginia, have made a new and useful Improvement in Hose-Couplings; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification, in which—

Figure 1 is a longitudinal section of the parts which form my coupling.

Figure 2 is a view of the parts united.

Figure 3 is a plan view of either of the parts shown in fig. 1, when the parts are in position to be put together.

Figures 4, 5, and 6, show various modes of inserting the packing ring.

Figure 7 is a plan view similar to that shown in fig. 3, with the parts in position as when coupled.

This invention consists in improvements and modifications of the hose-coupling for which Letters Patent No. 101,403 were issued to me, dated the 29th day of March, 1870.

The several parts of this invention are represented by the same letters as the corresponding parts in the invention as patented.

The changes made in this invention are as following:

First, the covering or clamping-ring, C, in the patent, moves back and forth by means of screw-threads. The screw-threads in this invention are omitted, and the rings C simply turn on the part B. The rings C are made of the form shown in fig. 2, that is, a portion of each ring C around half the circumference is cut away so as to leave a projecting lip. This projecting lip corresponds to the projecting lip on the stationary part of the coupling, or that which is connected with the hose. In order to hold the rings C on the part B, stops or pins, *h*, are inserted. To control the distance which the clamping-ring C must be turned to couple the parts, a stop, *i*, is placed on each ring. Owing to the form of the rings C, as plainly seen in fig. 2, when the couplings are placed together, the turning of one ring will turn the other, and the projecting part of each ring will be made to cover the projecting lip of the opposite part. This completely locks the parts together. In the patent I have de-

scribed the grooves on the projecting parts as triangular or bevel-shaped, but a square groove may be used instead.

Second, the improvement in placing the packing-ring. In the patent it is placed in a rebate near the end of the part A, as shown in fig. 4, but it is more firmly secured by placing it as shown in fig. 5, for then it is clamped between the ring B, which is beveled off, and the part A, as shown. Another mode of inserting the packing is shown in fig. 6. A rebate is formed on the inner surface of the part A, and a thimble-ring, *t*, is inserted like a packing-gland, so as to secure it in place. By inserting the packing in this manner, the part B may be dispensed with; that is, the part A will be increased in thickness, so as to receive the groove, as shown in part B in fig. 1, and the inner ring *t* will hold the packing in place.

Some of the advantages of my present improvement are the following:

First, by dispensing with the screw-threads on the parts B and C, the coupling is simpler in construction, and a coupling is effected much quicker, since it is only necessary to turn the coupling-ring C half round to effect a coupling.

Second, by the mode of inserting the packing-ring, as shown in fig. 2, it is completely clamped between the parts A and B, and, if necessary, the part B may have screw-threads, so as to engage with corresponding threads on part A, so as to be tightened over the packing, if required.

Third, by inserting the packing, as shown in fig. 6, the part B may be dispensed with.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The clamping-rings C, of the form shown in fig. 2, so as to lock the parts together by turning through a semi-circumference, as set forth and described.

2. The packing-rings, inserted as shown in fig. 5, clamped between the cone on the end of part A and the bevel of ring B, as set forth.

C. H. CUSHMAN.

Witnesses:

T. O. CONNOLLY,  
W. H. BURRIDGE.