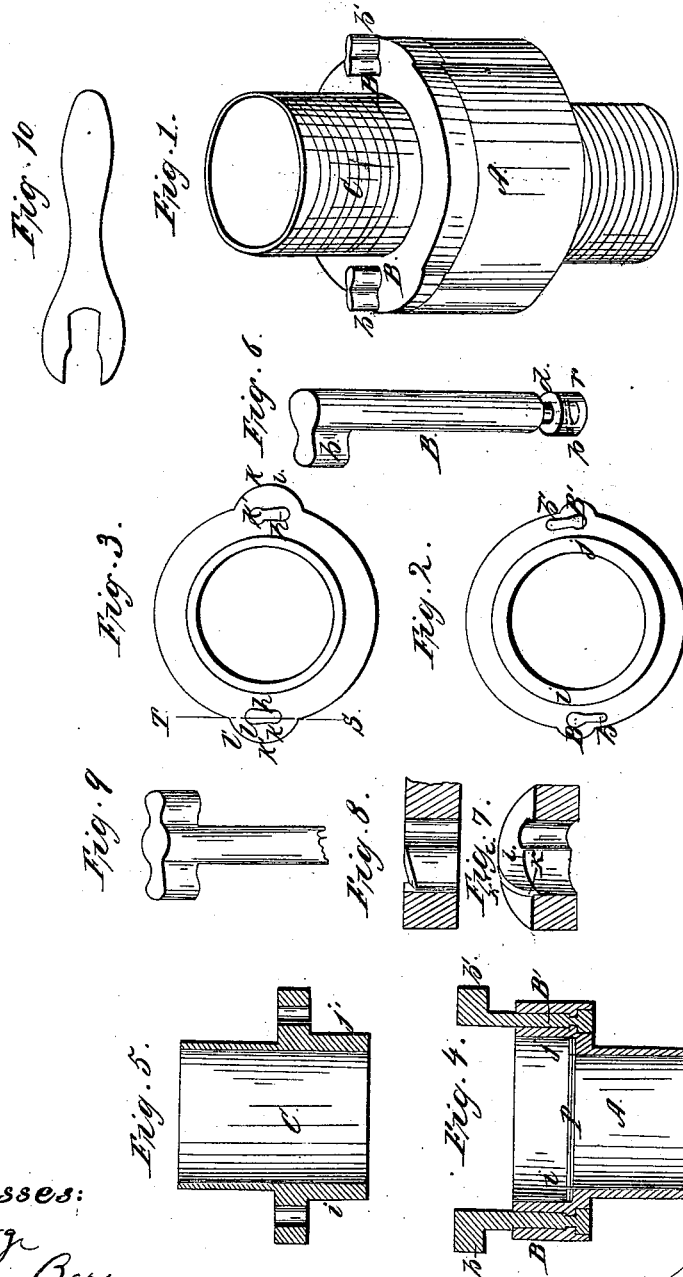


*A. M. George,*  
*Hose Coupling,*  
*N<sup>o</sup> 48,674.* *Patented July 11, 1865.*



*Witnesses:*  
*B. L. George*  
*A. Linn Berry*

*Inventor:*  
*A. M. George*

# UNITED STATES PATENT OFFICE.

AMMI M. GEORGE, OF NASHUA, NEW HAMPSHIRE.

## IMPROVEMENT IN PIPE-COUPPLINGS.

Specification forming part of Letters Patent No. 48,674, dated July 11, 1865.

*To all whom it may concern:*

Be it known that I, AMMI M. GEORGE, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented a new and Improved Hose-Coupling; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in an arrangement of two or more button-bolts, in combination with the two parts of a hose-coupling, in such a manner that by turning the bolts so that the buttons, heads, or projections *b b'* forming their heads shall be in one position, the two parts of the coupling may be put together or taken apart at pleasure, and by simply turning the heads, projections, or buttons to other positions while the two parts of the coupling are together the coupling is bound together and firmly held.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and use.

In the drawings, Figure 1 is a perspective view, showing the two parts A and C of the coupling together, and the same locked by the button-bolts B B'. Fig. 2 is a plan of that part of the coupling represented by A in Fig. 1, showing the buttons, heads, or projections *b b'* of the bolts B B' so turned as to coincide in direction with the holes *h h'*, Fig. 3, provided for them. Fig. 3 is a plan of that part of the coupling represented by C in Fig. 1. Fig. 4 is a section through that part of the coupling represented by A in Fig. 1, showing by section the button-bolts B B'. Fig. 5 is a section through that part of coupling represented by C in Fig. 1. Fig. 6 represents a perspective view of one of the bolts, B being the principal part or body of the bolt, and *b* the button, head, or projection. *d*, a part of the bolt which I call the "shank," is turned smaller, so as to give a shoulder to the bolt for the purpose of preventing it from passing farther through the flange of the coupling (see Fig. 4) than is desired. *r* is a ring to be fastened to the shank *d* by means of the pin *p*, for the purpose of holding the bolt B in position. Fig. 7 is a section and view rep-

resenting the part that would be cut off by a line, S T, through that part of the coupling represented by Fig. 3. *k k' l l'*, is an inclined plane sloping upward from the hole in the flange of the part C. This is also shown in Figs. 3 and 8. Fig. 8 is a section of the part represented by Fig. 7; Fig. 9, a modified form of the head of the button-bolt; Fig. 10, a view of wrench for turning the bolts.

The coupling is made of any suitable metal, in two parts, as shown in Fig. 1. The part A is shown in section in Fig. 4, and has an enlarged recess, *i j*, Figs. 2 and 4, turned into it for the purpose of receiving and for forming a socket for the projection *i' j'*, Fig. 5, of the part C. P, in Fig. 4, are rubber rings for packing.

The bolt B, Fig. 6, is made of any suitable metal, and may be of the exact shape shown, or in any other form that shall retain the principle. Instead of one projection to form the head, the bolt may have two, as shown in Fig. 9.

Inclines *k k' l l'*, *k k' l l'*, as shown in Fig. 3, are made adjoining the bolt-holes. Their shape and position will be readily understood by inspection of drawings 3 and 7.

The use of the coupling is this: We will suppose the two parts of the coupling are attached to the hose which we wish to unite. Now turn the button-bolts B B' so that the projections, buttons, or heads *b b'* shall stand in such a position as to allow the two parts of the coupling to be put together. This being accomplished, turn the heads, buttons, or projections *b b'* of the bolts so that they may come to a bearing on the inclines *k k' l l'*, *k k' l l'*, and thus draw the two parts of the coupling together and hold them firmly in position, thus connecting the hose.

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

The combination of the projections, heads, or buttons *b b'* of the bolts B B', and the inclined surfaces *k k' l l'*, *k k' l l'*, with the two parts of the coupling, substantially as and for the purpose set forth.

A. M. GEORGE.

Witnesses:

B. F. GEORGE,  
A. HUN BERRY.