J. MAHONY.

Improvement in Hose-Couplings.

No. 131,013. Patented Sep. 3, 1872.

Fig:1.

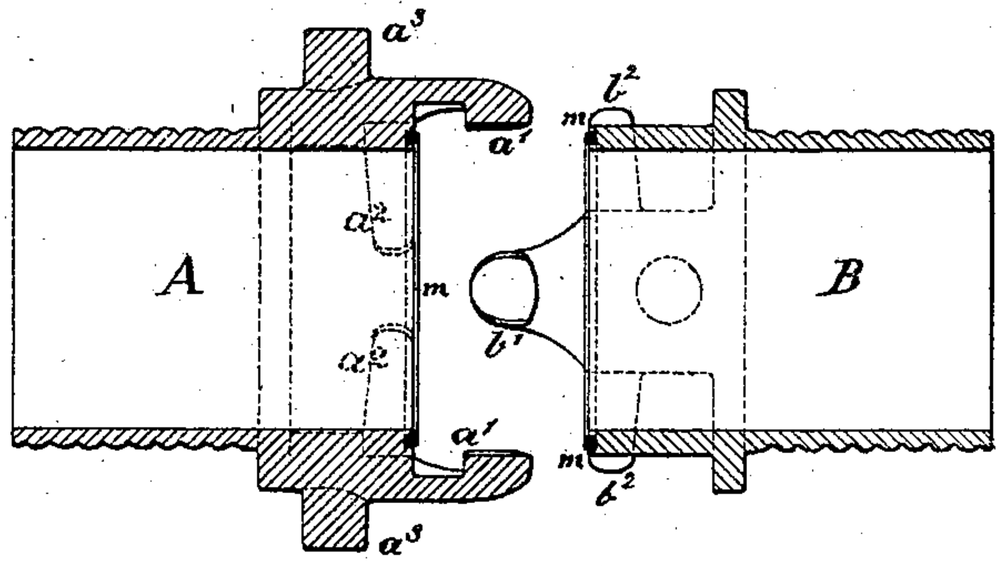


Fig:2.

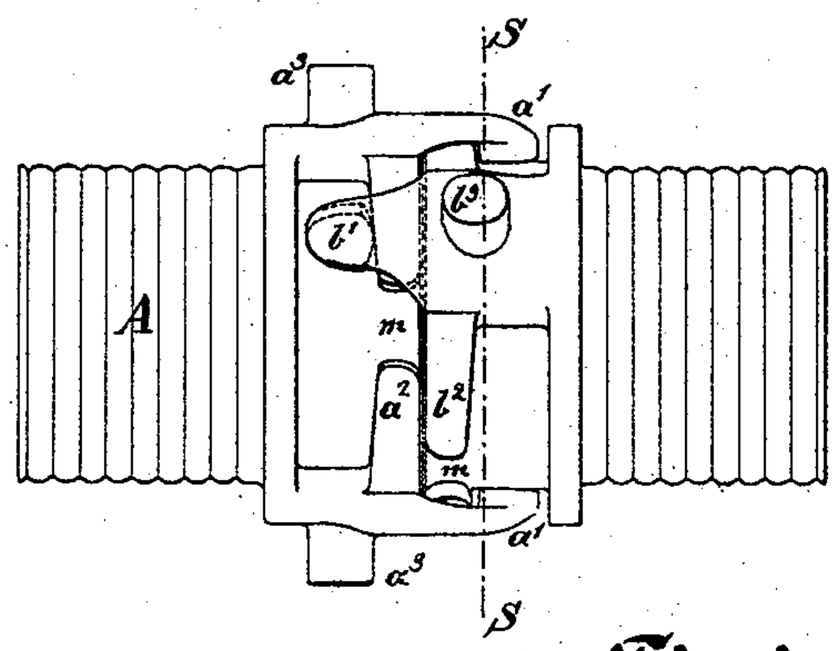


Fig:3.

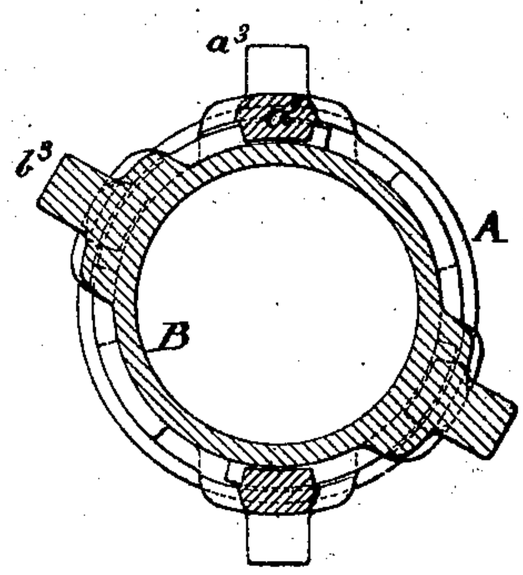
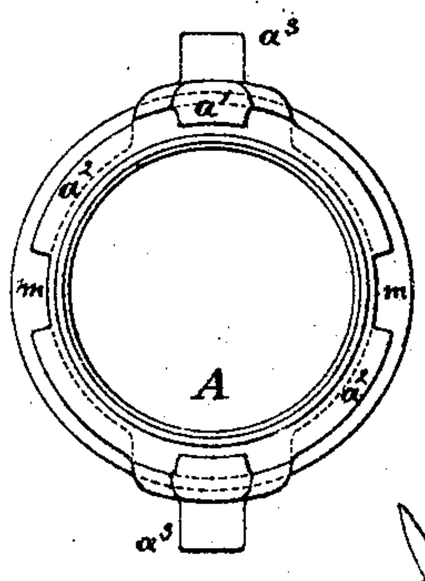


Fig:4.



Witnesses:

Arnold Sprague.

Wm. C. Dey

Inventor,

James Mahony,

by his attorney S. D. Stetson,

UNITED STATES PATENT OFFICE.

JAMES MAHONY, OF NEWPORT, RHODE ISLAND.

IMPROVEMENT IN HOSE-COUPLINGS.

Specification forming part of Letters Patent No. **131,013**, dated September 3, 1872.

Specification describing certain Improvements in Hose-Coupling, invented by JAMES MAHONY, of Newport, Newport county, Rhode Island.

The following is a description of what I consider the best means of carrying out the invention. The accompanying drawing forms a part of this specification.

Figure 1 is a central longitudinal section with the parts a little separated. Fig. 2 is a side elevation with the parts coupled. Fig. 3 is a cross-section on the line S S in Fig. 2. Fig. 4 is an end elevation of one of the parts.

Similar letters of reference indicate like parts in all the figures.

A and B are the two parts of the coupling formed exactly alike. They may be of any ordinary material, and a section of hose, not represented, is attached to each in the ordinary manner. Each is provided with arms or hooks, which project beyond its end proper and engage with the opposite part, the contact being tightened by turning the parts one upon the other after they have been properly applied together. A minute description of one part will suffice for both. The two hooks a^1 a^1 are located on opposite sides of the same coupling-piece, A, and are cast in one piece therewith. They hook inward or toward each other, as represented, a peculiar rim or partial collar extending nearly around at the end proper of the piece, as indicated by a^2 a^2; but instead of being continuous, this collar a^2 is formed with two recesses or notches marked m m, (see Fig. 4,) of sufficient breadth to receive the corresponding hooks on the opposite part of the coupling, and allow the opposite part, B, to be engaged with the part A by the thrusting of its hooks b^1 through these notches m, and afterward turning the part B a little relatively to the part A. The back edge of the rim a^2 is oblique, being slanted each way from the notch m. It follows that, on applying the parts A and B together and turning them forcibly relatively to each other, they are locked strongly and very tightly together by the tight contact of the hooks a^1 on the inclined back of the rim b^2, and at the same time by the corresponding tight-bearing contact of the hooks b^1 on the back of the inclined rim a^2.

It will be seen that the couplings may be engaged by turning the parts either way after their application together. The projections a^3 b^3, arranged as shown, perform the double duties of affording strong holds for wrenches in coupling or uncoupling, and of defending the adjacent hooks against being bent. Without these defences the hooks would, from their isolated position, extending out, as shown, be peculiarly liable to be bent inward by a sudden blow upon the pavement on letting the hose fall. This is guarded against, in part, by widening the necks or shanks of the respective hooks, and, further, by so locating the projections a^3 and b^3, that in falling, the blow will be received by these projections instead of the hooks.

The firm holding of the hose together will usually be secured by the devices above described without further aid. If desired, however, I can tap through one or more of the hooks and insert a screw, which screw may be tightened after the hose is coupled, and lock it very firmly.

One of the hooks a^1 b^1 may suffice instead of two. So, also, three, or even a greater number, may be used with success.

What I have termed the notches m may be wider than here represented. It is only absolutely essential that they be sufficiently wide to allow the entrance of the hooks of the opposite part. In order to allow for imperfect workmanship, or for a slight bending of the hooks to one side or the other, it may be well to make the notches considerably wider than the hooks which they are to receive. I propose in some cases to bevel the sides of the notches, or, in other words, to remove considerable of the height of the collars a^2 b^2, immediately adjacent to the notches. This will facilitate the instantaneous and correct application of the two parts of the coupling together.

Another modification may be to make the hooks, whether one or more are employed, somewhat longer than shown, and provide each with two instead of one point, projecting inward, and each part being provided with a correspondingly increased number of the oblique partial collars a^2 b^2, the coupling is still more strongly engaged. I prefer, however, the simple form shown in the figures.

I claim as my invention—

1. The hose-coupling described, having both parts formed alike, and having hooks a^1, in-

clined collars a^2, and spaces or notches m, adapted to engage directly with a similar part, B b^1 b^2 m, as specified.

2. Also, the projections a^3, arranged as shown relatively to the hooks a^1 of a compound coupling having each part both male and female, as specified.

In testimony whereof I have hereunto set my hand this 10th day of May, 1872, in the presence of two subscribing witnesses.

JAMES MAHONY.

Witnesses:

WM. C. DEY,

ARNOLD HÖRMANN.