

(No Model.)

A. L. BAILEY.
HOSE COUPLING.

No. 526,174.

Patented Sept. 18, 1894.

Fig. 1

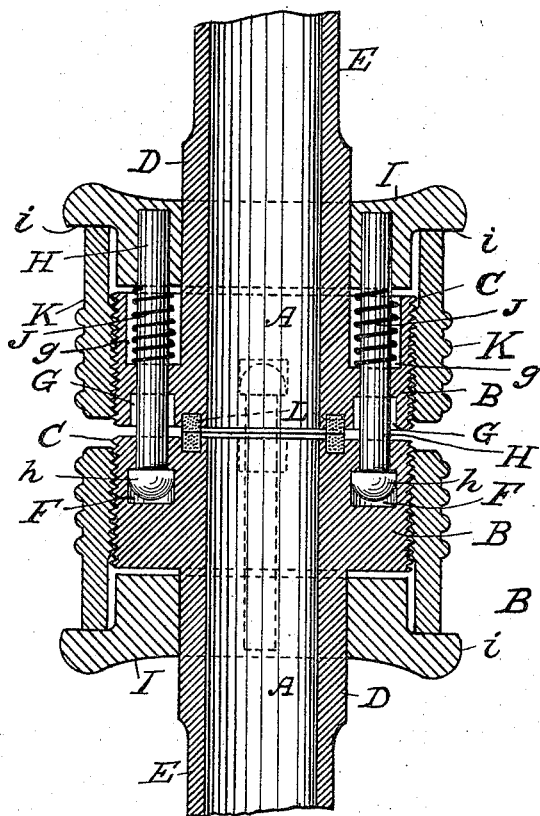


Fig. 2.

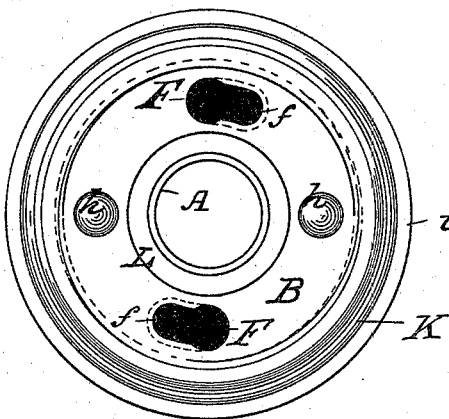
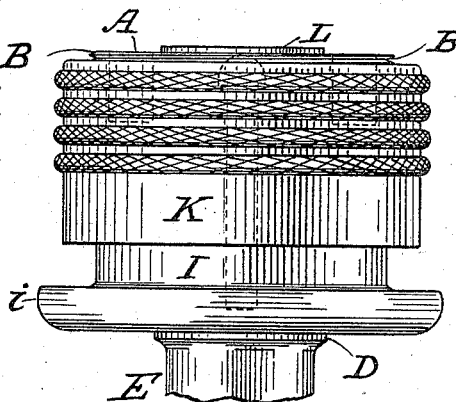


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

ALDEN L. BAILEY, OF ST. JOHNSBURY, VERMONT.

HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 526,174, dated September 18, 1894.

Application filed June 18, 1894. Serial No. 514,885. (No model.)

To all whom it may concern:

Be it known that I, ALDEN L. BAILEY, a citizen of the United States, residing at St. Johnsbury, in the county of Caledonia and State of Vermont, have invented certain new and useful Improvements in Hose-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to either steam, or water hose-couplings, and belongs to that class in which one section is a duplicate of the other.

The invention consists essentially in the adjustable plug and socket connections;—the plugs of which are normally concealed within its section, all of which will be fully set forth in the following specification and claims, and clearly illustrated in the accompanying drawings forming a part of same, of which—

Figure 1, is a central longitudinal sectional elevation of my improved hose-coupling, as when connected, Fig. 2, being a face view of one section of my improved coupling, as if that section shown at the top, in Fig. 1, had its face exposed to view, Fig. 3, being a broken elevation in which the coupling plugs are concealed, as when in their normal position, and shown in dotted lines;—otherwise, this view shows one section of the coupling in the same position as is that seen at the bottom in Fig. 1, which is also in the correct position to couple to the section seen in Fig. 2, by first placing them face to face.

Similar reference letters denote corresponding parts in all the views.

Each section, A, of the coupling, has an enlargement, B, provided each with an exterior thread, C, to which is fitted a threaded collar, the purpose of which will be hereinafter explained. Back of the threaded portion, C, each section has a reduced cylindrical portion, D, back of which they are still further reduced, as at E, for the attachment of a section of hose. Each section A, has two sockets, F, placed at points diametrically opposite, between which, and also arranged at points diametrically opposite, are two perforations, G, in which rest the coupling plugs H, one end of which is provided with a suitable en-

larged head, *h*, their other end being firmly secured at diametric points within a collar, I, which is mounted, and adapted to move longitudinally, upon the smooth cylindrical portion, D, of each coupler-section.

The particular method by which the plugs H, are secured to the collar I, is not important; any convenient method which will rigidly attach them to said collar being all that can be desired. To this end, they may be closely fitted to perforations in said collar and a retaining pin put laterally through the edge of the collar and each plug, or the perforations in said collar may be threaded, and the plugs threaded to fit.

The object of the collar, I, and the reason for mounting the plugs H, therein, instead of mounting them in the section, A, is to guard against the coupling-plugs becoming accidentally bent and therefore inoperative, which would be a likely result of allowing said plugs to normally project beyond the face of either section a sufficient length, to couple with the other.

A suitable spring, or springs, should be interposed between the collar, I, and the enlarged portion, B, of either coupler-section, in order that the concealment of the plugs, H, may be effected automatically. In the drawings I show for this purpose, helical springs, J, mounted one upon each plug H, and which, when compressed, are for the most part confined, within, an annular groove formed in the portion, B, or, an enlargement, *g*, of the perforation, G, operating between the shoulder thus formed in said perforation, and the said collar.

The sockets formed in each section of the coupler for the reception of the coupling-plugs of the other, are elongated, and form segments of a circle concentric with its section;—the ends F, being large enough to receive the heads, *h*, of the plugs, H, while the portions, *f*, are only sufficiently large to receive the stem portion of said plugs;—and to couple one section to the other, they are placed face to face, with the coupling-plugs, H, of one section opposite the sockets, F, of the other section, and the sliding collars, I, pressed toward each other and then turned slightly in opposite directions, which places the heads, *h*, of the coupling-plugs back of

the smaller portions, *f*, of the sockets, thus effecting the coupling of the two sections. Then, in order to make a steam, or water-tight joint, the threaded collars, or nuts, *K*,
5 are turned slightly, in opposite directions, which moves them away from each other and causes them to bear against an annular flange, *i*, of the collar, *I*, which draws the heads, *h*, hard onto the sockets, *f*, and simultaneously
10 crowds the gaskets, *L*, together.

Probably the most practical method of forming the sockets, *F*, *f*, is to provide an annular groove in the back of either part *B*, as previously mentioned, in connection with the
15 springs, *J*, and as indicated by dotted lines in Fig. 2. The particular method by which the sockets are to be formed, however, is not a feature of the present invention.

Having described my invention, what I
20 claim is—

1. In a hose-coupling composed of duplicate sections, adjustable coupling-plugs normally concealed and capable of protrusion, suitable
25 sockets for the reception of said plugs, said sockets being elongated and smaller at one

end than the other, and a threaded nut or collar for tightening said plugs within said sockets.

2. A hose coupling composed of duplicate sections, having each an externally threaded
30 portion, an internally threaded collar mounted thereon, a sliding collar mounted back of said externally threaded portion against which said threaded nut may bear, suitable coupling-plugs mounted in said slid-
35 ing collar and normally concealed within the externally threaded portion and capable of protrusion through and into the adjacent coupler-section, a suitable spring or springs
40 for moving said sliding collar and retracting said coupling-plugs, and sockets for receiving the protruding ends of said plugs, all substantially for the purpose set forth.

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

ALDEN L. BAILEY.

Witnesses:

GILBERT E. WOODS,
HUGH H. BENTON.