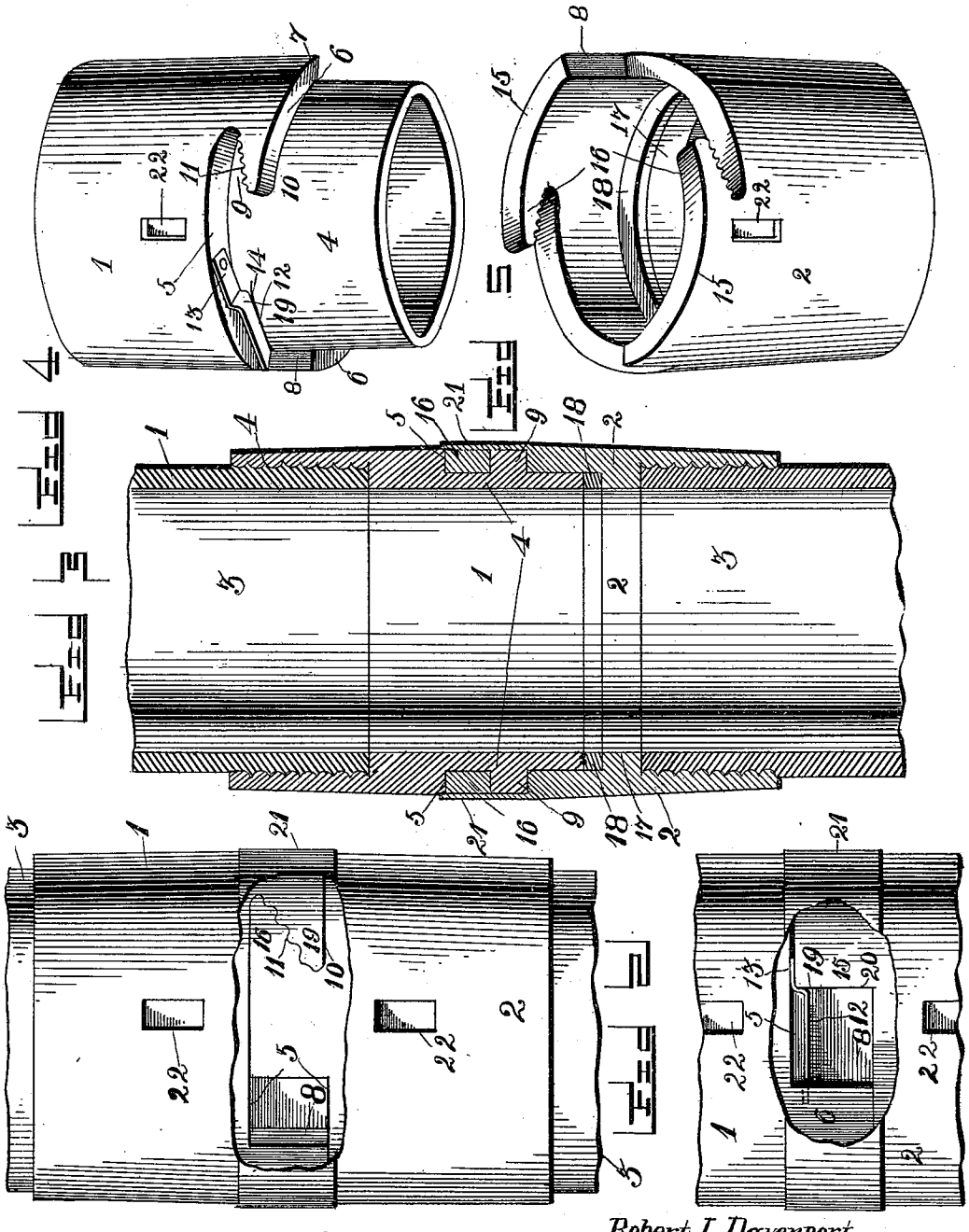
No. 641,846. Patented Jan. 23, 1900.

R. L. DAVENPORT & F. Q. RAST.

HOSE COUPLING.

(No Model.) (Application filed Apr. 1, 1899.)



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT L. DAVENPORT AND FELIX Q. RAST, OF CLEBURNE, TEXAS.

HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 641,846, dated January 23, 1900.

Application filed April 1, 1899. Serial No. 711,406. (No model.)

To all whom it may concern:

Be it known that we, ROBERT L. DAVENPORT and FELIX Q. RAST, citizens of the United States, residing at Cleburne, in the county of Johnson and State of Texas, have invented a new and useful Hose-Coupling, of which the following is a specification.

This invention relates to hose-couplings, and has for one object to provide an improved device of this character having a positive interlocking engagement and provided with means to prevent accidental uncoupling of the device, yet permitting of the same being uncoupled by the proper application of force.

A further object is to incase the interlocking parts, so as to protect the same against the access of dirt and damage of any character.

To these ends the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is an elevation of the device in coupled position, a portion being broken away to show the interlocking engagement of the members. Fig. 2 is a similar view showing the means for preventing accidental displacement. Fig. 3 is a longitudinal sectional view thereof. Fig. 4 is a detail perspective view of the male member of the coupling. Fig. 5 is a similar view of the female member of the coupling.

Corresponding parts are designated by like reference characters in all the figures of the drawings.

Referring to the accompanying drawings, 1 designates the male member of the coupling, and 2 the female member thereof, each being substantially cylindrical in shape and provided at their opposite ends with the hose or pipe sections 3, respectively, secured within the ends of the members in any preferred manner. Each member is in the form of a single casting and has no loose or separate parts which might become displaced or lost entirely from the coupling.

By referring particularly to Fig. 4 of the drawings it will be seen that the male member of the coupling is in the form of a hollow cylinder having one end reduced in thickness, forming a tongue 4 and provided with a peripheral stop-shoulder 5 at the base or rear end of the tongue. At diametrically opposite points on the exterior face of the tongue and projecting forward from the shoulder 5 are a pair of lugs 6. Each of these lugs extends, preferably, about one-quarter of the length around the tongue, having a straight even front edge 7 and a transverse shoulder 8 at one end thereof. The opposite end of the lug is provided with a longitudinal slot 9, which forms a wedge-shaped finger or hook 10, having its front edge flush with and forming a continuation of the outer edge of the lug and its inner edge 11 being beveled or inclined toward the shoulder 5 and corrugated transversely or roughened, as shown. Adjacent the transverse shoulder of one or both of the hooked lugs 6 is a bowed leaf-spring 12, having one offset end 13 connected flush against the shoulder 5 and the opposite end of the spring being fastened to or seated in a suitable recess formed in the transverse shoulder 8 of the lug, whereby the spring is mounted in position and held away or offset from the shoulder 5 to permit of the proper operation of the spring. Springs of this character may be provided upon both sides of the male member, as desired. It will be noted that the spring is seated in a suitable notch 14, formed in the outer face of the tongue, and is confined in place by the wall of said notch, against which the outer face of the spring abuts for the greater part of its length.

The other member of the coupling is illustrated in Fig. 5, having on its inner edge a pair of lugs 15, provided with the fingers or hooks 16, substantially as described for the male member, but reversely arranged. About midway of the length of the member there is provided an internal annular shoulder 17. Fitted against the face of this shoulder which is nearest to the lugs 15 is a suitable elastic washer 18.

In coupling the two members together the tongue of the male member is inserted within the lug end of the other member, the members being disposed so that the lugs thereof may pass by each other until the spring 12 engages the outer edge of the adjacent lug upon the female member. The members are then given a turn in opposite directions to fit the fingers or hooks 10 within the respective

slots 9. By reason of the wedge shape of the fingers or hooks the members are drawn tightly together, and the corrugated engaging faces of the interlocked hooks tend to prevent disengagement thereof. As the members are turned in opposite directions the spring 12 will travel past the adjacent lug 15 on the other member until the shoulder 19 of the spring clears the outer edge of the lug and expands into engagement with the transverse end shoulder 20 of the lug 15, whereby an accidental reverse movement is prevented, as will be understood, and the members are effectually coupled together in a convenient and substantial manner. In the coupled position of the members it will be noted that the inner face of the tongue 4 is flush with the inner face of the annular shoulder 17, whereby an unobstructed passage for the water is provided, and the end of the tongue being forced against the rubber washer or gasket 18 prevents leaking of the device.

One of the members, preferably the female, is provided with a separate band or integral extension 21, inclosing the lugs and projecting beyond the same, so as to overlap the other member and cover the joint between the two members and protecting them from dirt and damage when in coupled position. In Fig. 3 the band 21 is shown as an integral extension of the female member 2. Each of the members is provided with opposite notches or recesses 22 to receive a spanner or wrench for tightening or loosening the coupling.

The present improvements provide an exceedingly simple and effective coupling which has no loose parts to become broken or lost, is prevented from being accidentally uncoupled, and the joint between the members thereof is effectively covered and protected from dirt, &c.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the present invention.

Having thus described the invention, what is claimed is—

1. In a hose-coupling, the combination with male and female members, having lugs which are provided with hooks or fingers at one end and transverse stop-shoulders at the other end thereof, of a bowed or shouldered spring carried by one of the members, adjacent to the transverse shoulder of one of the lugs, the shouldered or bowed portion of the spring being adapted to engage the transverse stop-shoulder of the adjacent lug of the other member, when the device is in coupled position, and prevent accidental uncoupling of the same, substantially as shown and described.

2. In a hose-coupling, the combination with male and female members having lugs which are provided at one end with hooks or fingers and transverse stop-shoulders at the other end thereof, of a leaf-spring carried by one of the members, having one of its ends bent or offset and fastened to the edge of the member, and its other end being fastened to the stop-shoulder of the adjacent lug, the bent end of the spring forming a shoulder, which is adapted to engage the shoulder of the adjacent lug upon the opposite member, substantially as and for the purpose set forth.

3. In a hose-coupling, the combination of a female member having an inner annular shoulder, and hooked lugs provided upon one edge thereof, a male member having a portion reduced in thickness forming a tongue having a raised stop-shoulder at its rear end and provided with hooked lugs, which extend outward from the stop-shoulder, and a bowed or shouldered leaf-spring carried by the raised stop-shoulder, the tongue of the male member being adapted to fit within the female member, and against the inner annular shoulder thereof, the hooked lugs being interlocked respectively, and the shoulder of the spring engaging the adjacent lug of the other member, substantially as shown and described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ROBT. L. DAVENPORT.
FELIX Q. RAST.

Witnesses:
WILBUR HIATT,
DAVID STEELE.