

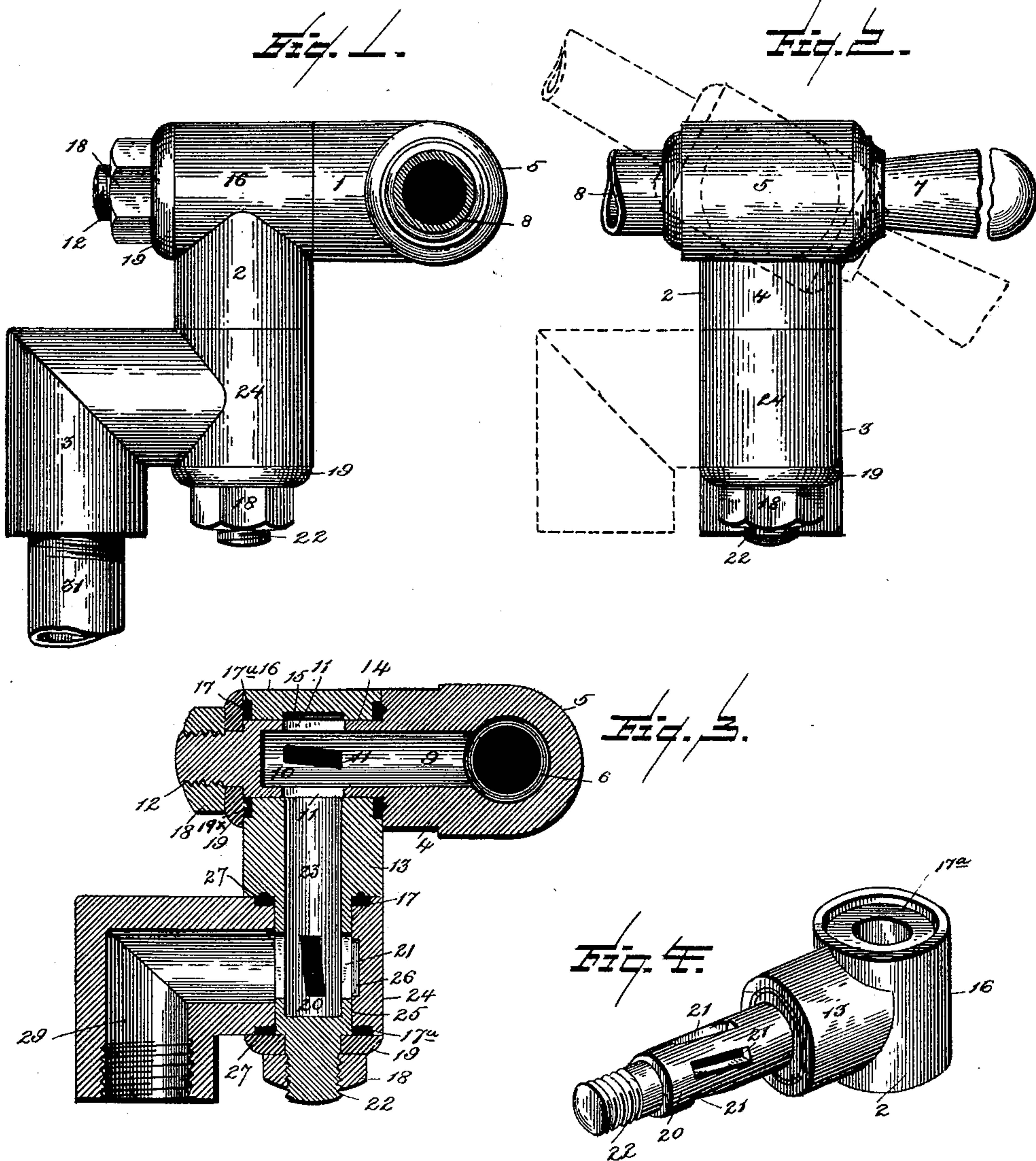
(No Model.)

W. M. HARRIS & A. B. SMITH.

DETACHABLE PIPE COUPLING.

No. 386,881.

Patented July 31, 1888.



Witnesses:

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UNITED STATES PATENT OFFICE.

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DETACHABLE PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 386,881, dated July 31, 1888.

Application filed April 7, 1888. Serial No. 269,998. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM M. HARRIS and ALBERT B. SMITH, citizens of the United States, residing at Mansfield, in the county of Richland, State of Ohio, have invented certain new and useful Improvements in Detachable Pipe-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to detachable pipe-couplings, and is especially designed for use in connection with garden-sprinklers; yet it is equally adapted for use in any water or other system of distribution wherein a universally-movable joint is required.

The objects and advantages of the invention, together with the novel features thereof, will be hereinafter described, and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a side elevation of a pipe-coupling constructed in accordance with our invention. Fig. 2 is a front elevation, the different positions assumed by the parts being shown by dotted lines. Fig. 3 is a central longitudinal section, and Fig. 4 is a detail in perspective of one of the coupling-sections.

Like numerals of reference indicate like parts in all the figures of the drawings.

The coupling in this instance comprises, essentially, three sections, 1, 2, and 3, the three being arranged and connected in the order named, as hereinafter described.

The section 1 comprises a straight body portion, 4, at one end of which is formed a T-head, 5, centrally bored, as at 6, having one of its ends plugged or provided with an operating-handle, 7. At the opposite end may, if desired, be secured an ordinary nozzle, 8, of a garden-sprinkler or other form of water-distributing connection. The body portion 4 of the section 1 is centrally bored, the diameter of the bore being smaller, as shown at 9, than the bore 6, and the same terminates in a reduced stem portion, 10, provided with ports 11 and screw-threaded at its extremity, as at 12.

The section 2 consists of a body portion, 13, at one end of which is formed a T-head, 16,

bored, as at 14, and having a central interior annular recess, 15. At each end of the T-head 16 is formed an annular recess, 17^a, into which is inserted a packing-ring, 17, of leather or other suitable material. Within this T-head is rotatably mounted the spindle 10 of the section 1, the washers 17 serving to form a close water-tight joint. The sections are held in rotatable connection by means of a nut, 18, and an interposed washer, 19, provided with a semicircular rib, 19*, which embeds itself in the washer 17, applied to the screw-threads 12 of the stem 10. The opposite end of the section 2 is similar to the section 1, it being provided with a reduced stem portion, 20, provided with ports 21 and screw-threads 22, a central bore, 23, terminating therein.

Upon the stem 20 is rotatably mounted the T-headed ends 24 of the third and in this instance the last section, 3. The T-head 24 thereof is longitudinally bored, as at 25, and centrally and internally recessed, as at 26, which registers with the ports 21, formed in the stem 20. Exterior annular recesses, 27, are formed at each end of the T-head, in which are seated packing-rings 17. These two sections are bound in rotative relation with each other by means of a nut, 18, mounted on the screw-threads 22.

When intended for use in connection with a garden-sprinkler or other vertical pipe, 31, leading from the service-pipe, we may form the section 3 with an elbow, 29, the entire section being bored, as at 29.

By the arrangement just described a horizontal relation is secured through the connections of the sections 2 and 3, and a vertical relation is secured through the connection between the sections 1 and 2, and through the two joints a stream of water may be directed in any desired direction. Thus a rigid vertical pipe, 31, may be employed and the use of hose obviated.

Having described our invention and its operation, what we claim is—

The combination of the section 1, having the stem 10, binding-nut 12, and washer 19, with the section 2, having the head 16, re-

cessed, as at 17^a, and having packing-rings 17,
seated therein, and having the stem 20, screw-
threaded, as at 22, and provided with the nut
22 and washer 18, and having recesses 17^a, in
5 which are seated packing-rings 17, and with
the section 3, having the bore 29, and T-head
24, bored, as at 25, to receive the stem 20, sub-
stantially as specified.

In testimony whereof we affix our signatures
in presence of two witnesses.

WILLIAM M. HARRIS.
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Witnesses:

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