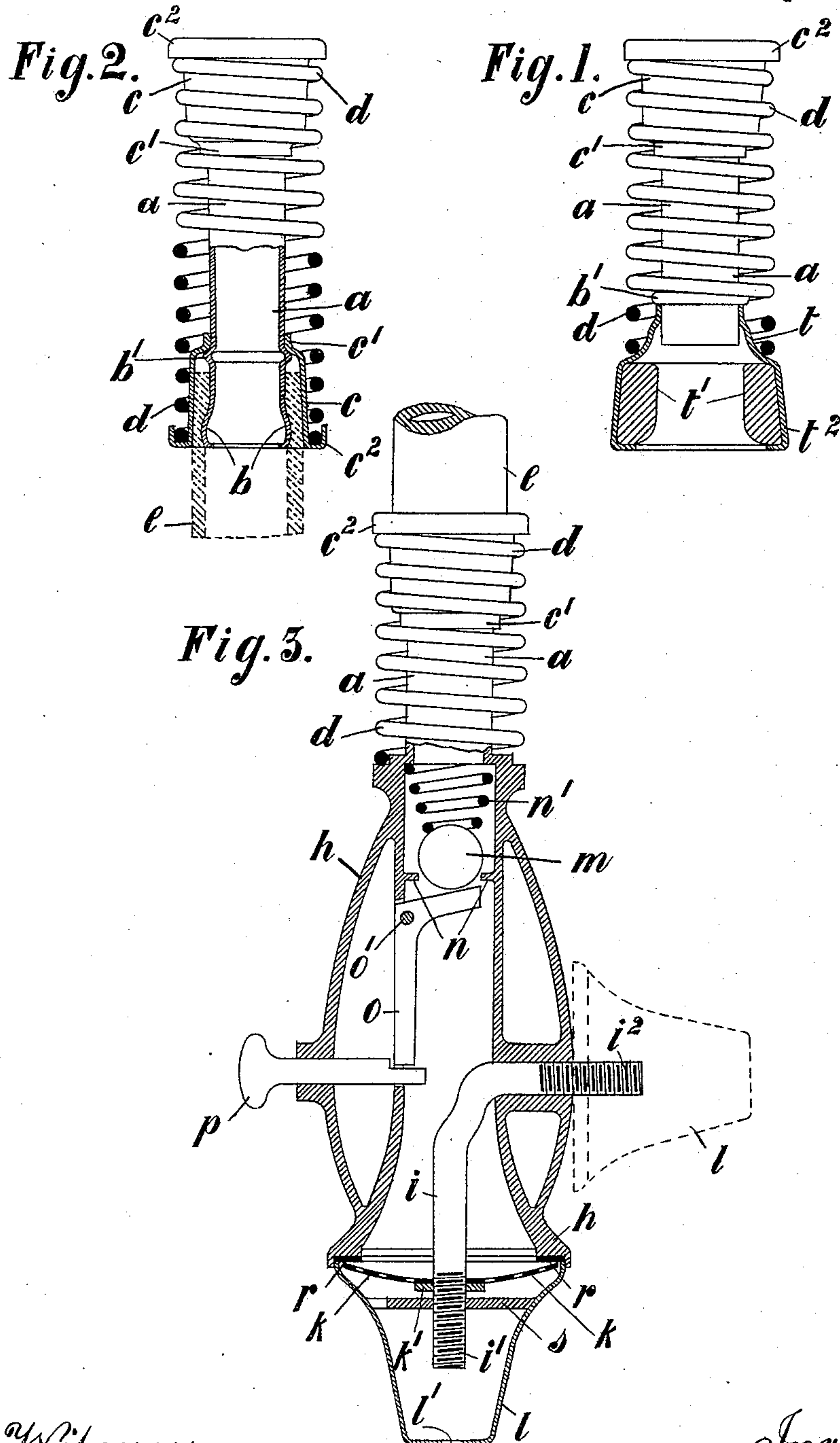


(No Model.)

W. FRASER.
HOSE PIPE FITTING.

No. 475,213.

Patented May 17, 1892.



Witnesses.
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UNITED STATES PATENT OFFICE.

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ONE-HALF TO JOHN GOLDIE CHAPMAN, OF BIRKENHEAD, ENGLAND.

HOSE-PIPE FITTING.

SPECIFICATION forming part of Letters Patent No. 475,213, dated May 17, 1892.

Application filed July 30, 1891. Serial No. 401,120. (No model.) Patented in France May 30, 1891, No. 213,804, and in Belgium May 30, 1891, No. 95,051.

To all whom it may concern:

Be it known that I, WILLIAM FRASER, a subject of the Queen of Great Britain and Ireland, residing at Sparkbrook, near Birmingham, in the county of Warwick, England, have invented certain new and useful Improvements in Hose-Pipe Fittings, (for which I have obtained Letters Patent in France, No. 213,804, dated May 30, 1891, and in Belgium, No. 95,051, dated May 30, 1891;) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to connections and fittings used in connection with hose-pipes; and it consists of certain improvements therein, hereinafter described and claimed.

In the drawings, which serve to illustrate my invention, I show these improvements.

Figure 1 is an elevation, partly in section, of the improved fitting for fixing the hose-pipe to an ordinary house-tap or other water-supply conduit. Fig. 2 is an elevation showing the improved fitting for coupling together two lengths of hose-pipe, and Fig. 3 shows the invention used at the end of the hose-line combined with the delivery-nozzle.

The invention mainly consists of an automatically-fixing connection by which when a hose-pipe is placed over the metallic throat of the connecting pipe or piece it is caught automatically by a spring-pressed gripping-collar which slides on the throat-pipe and is held firmly, and a water-tight connection is thus automatically made.

In the drawings, *a* is the throat-pipe, having at one end or at each end, as the case may be, a bulbous part *b*, over which the tube is placed when connecting it up.

c are the sliding spring-pressed gripping-collars, and *d* are the springs by which the collars *c* are automatically pressed up into position and grip the hose-pipe, which is designated *e*.

It will be seen that the collars *c* have necks *c'*, which are the parts which slide directly on the throat-pipe *a*, and that they are flanged over at *c²* to receive and form seats for the ends of the springs *d*.

The throat-pipe *a* is provided with a projecting ring *b'*, which forms a stop, against which the neck *c'* of the collar *c* is pressed by the springs *d* and by which such collars are held in position.

The coupling shown in Fig. 3 forms part of the distributing-nozzle, and this part consists of a body *h*, having a rod *i* cast in it, provided with threaded parts *i'* and *i²*, a rose or spraying-plate *k*, held on by the nut *k'*, a jet-hood *l*, having a jet-aperture *l'*, (which fits and screws either on the screwed end *i'* or *i²*, according to whether it is desired to use a fine spray or a single jet,) and a ball-valve *m* by which the water may be stopped and regulated, as desired. The seat on which the ball-valve *m* sits is designated *n*, and it is normally pressed toward it by the water; but a spring *n'* may be used as well, if desired. The valve *m* is worked through the bell-crank lever *o*, pivoted at *o'* by the press-button *p*, by depressing which the valve is opened and water allowed to flow.

r is the washer of leather, rubber, or other equivalent material by which a water-tight joint is made between the edge of the rose-plate *k* and the body *h* and also the edge of the nozzle-hood *l* and the body, and *s* is a plate secured to the hood-nozzle and having water-passage apertures therein and by which it is screwed onto the end *i'* or *i²*.

The end *t*, (shown in Fig. 1,) by which the coupling is attached to an ordinary tap-mouth or end of a pipe, is well known, and merely consists of a ring of india-rubber *t'*, held in the hollow neck *t²*, and is pressed onto the tap mouth or pipe in the well-known way.

The throat-pipe *a* is made of ordinary piping, with its ends *b* pressed out in any suitable known way, while the collars *c* are stamped out of sheet metal in the well-known method of stamping. When making double couplings, as in Fig. 2, one end is first formed on the pipe, and the collars and spring *c* and *d* are then put on and held back, and then the other end *b* is formed, and the coupling is completed.

In operation to connect a hose-pipe to the coupling one end collar *c* is pressed back by the hand and the pipe slipped over the bulb-

ous end *b* of the throat-pipe *a*, and then the collar is let go and the spring *d* presses it onto the bulbous part *b* and retains it there, making a water-tight joint and automatically
5 without any screwing up of parts or other hand manipulation. This automatic operation renders couplings very easy to connect and manage, and the action, moreover, is done very rapidly, and by this invention the draw-
10 backs of couplings heretofore employed wherein the parts had to be screwed up or otherwise turned or manipulated are entirely obviated.

What is claimed in respect of this invention is—
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A hose-pipe fitting or coupling consisting of a tube *a*, having a bulbous end *b*, a sliding

collar *c* thereon, and a spring *d* by which said collar is pressed outward, and when the hose is put on the bulbous end an automatic
20 coupling and water-tight joint is effected without screwing, turning, or other manipulation, substantially as described.

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

WILLIAM FRASER.

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