

No. 637,505.

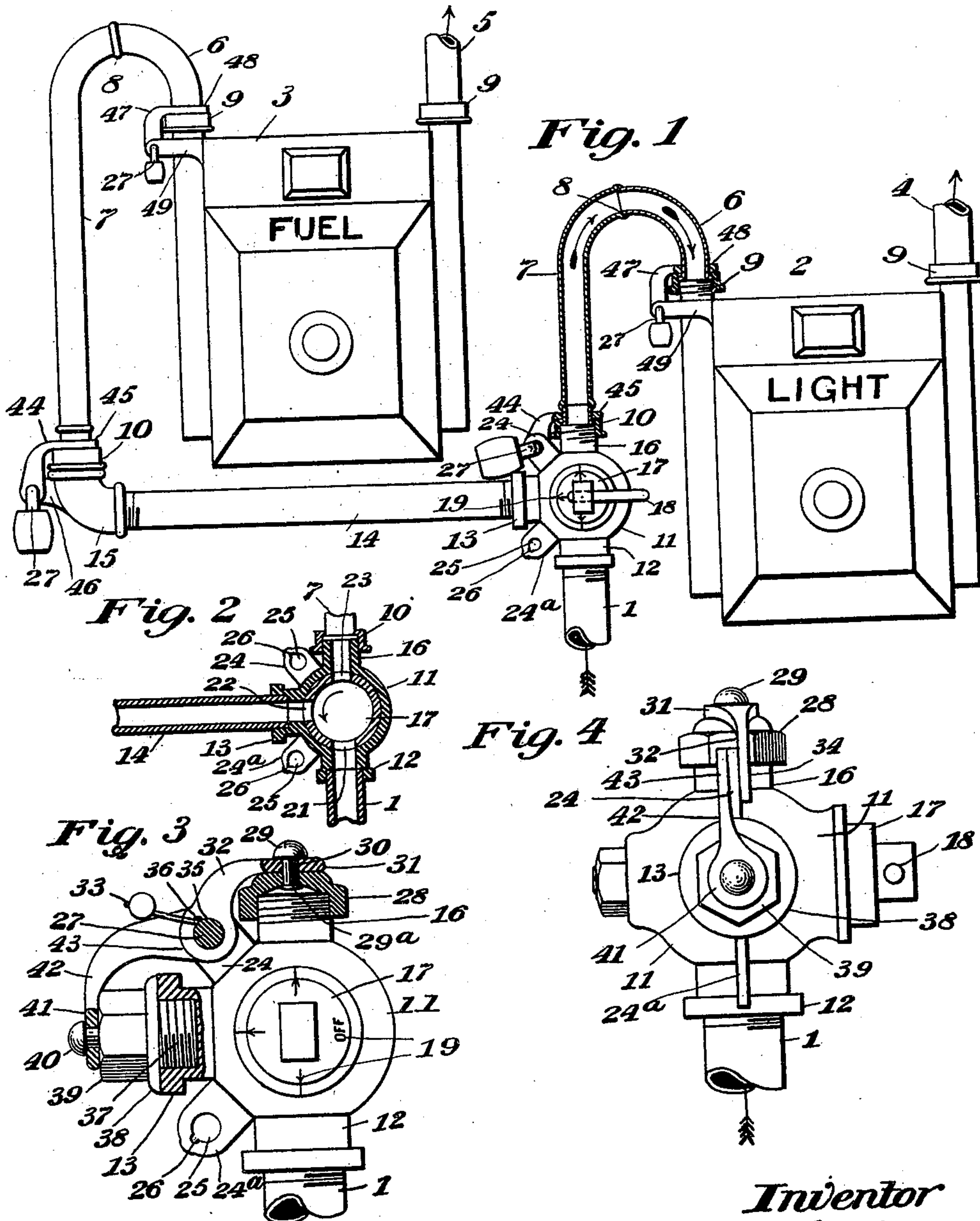
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J. FRANKLIN.

VALVE CONNECTION FOR GAS OR OTHER METERS.

(Application filed Aug. 28, 1899.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

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## VALVE CONNECTION FOR GAS OR OTHER METERS.

SPECIFICATION forming part of Letters Patent No. 637,505, dated November 21, 1899.

Application filed August 28, 1899. Serial No. 728,781. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN FRANKLIN, a citizen of the United States of America, and a resident of Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Valve Connections for Gas or other Meters, of which the following is a specification.

This invention relates to certain improvements in gas-meter connections, such as are especially employed for connecting meters with the street service-pipes; and the object of the invention is to provide a connection adapted for use with one or more house service-pipes with gas from a single street service-pipe, the construction of the device being such that any or all of the said house service-pipes may be readily disconnected from the street service-pipe to stop the supply of gas thereto without necessitating the removal of the improved connection from the street service-pipe.

The invention consists in certain novel features of the construction, combination, and arrangement of the several parts of the improved connection, whereby certain important advantages are attained and the device is made simpler, cheaper, and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

In the accompanying drawings, illustrative of my invention, Figure 1 is a view drawn to a small scale and showing a connection embodying my improvements arranged for supplying two house service-pipes from a single street service-pipe. Fig. 2 is a sectional view taken through the connection, showing the three-way valve therein and the means for coupling the meters and the street service-pipe thereto. Fig. 3 is a view drawn to a larger scale and showing in sectional elevation the means for stopping the flow of gas from the street service-pipe to either or both of the house service-pipes. Fig. 4 is an elevation of the improved connection, the view being taken at right angles to Fig. 3.

In the views, 1 indicates a street service-pipe, and 2 and 3 represent separate meters, each connected to a house service-pipe, these pipes being marked 4 and 5, respectively.

These house service-pipes may be employed either one for a lighting and the other for an independent heating or fuel system, or may be both used independently either for heating or lighting purposes. In either case each meter will register the volume of gas supplied through its particular house service-pipe.

Each meter 2 and 3 is provided with a gooseneck for coupling it with the street-service-pipe connection, the meter connections 9 between the goosenecks and the house service-pipes 4 and 5 being unions made in the ordinary well-known form. The goosenecks are made of two sections 6 and 7 of metal pipe, joined, as shown at 8, by means of a wipe or other joint, the meter-section 6 being made curved and being formed of stiff metal pipe, as copper or brass, for example, and the pendant longer section 7 being made from some pliable metal, as lead, so that it may be bent sufficiently to bring its end, which is also provided with a union 10, in position to be coupled to the street-service-pipe connection. Indicated as a whole by 11 in the drawings. The sections 6 and 7 of the gooseneck are both made curved or bent, as shown in Fig. 1, in the process of manufacture, and both ends thereof being provided with unions 9 and 10 it will be obvious that the gooseneck may be quickly and easily removed from connection with both the meter and the service-pipe connection 11, so as to afford free access to the service-pipe for the removal of obstructions. Heretofore the gooseneck connection has ordinarily been permanently connected with the service-pipe connection, and in case of obstruction of the service-pipe it has been customary to uncouple the gooseneck from the meter and bend it upright to afford access to the service-pipe; but in bending the lead gooseneck the soft metal of which it is composed often buckles, so as to damage the connection. This objection is avoided by my improved gooseneck, since there is no need of bending the leaden arm thereof after the connection has been made with the meter.

The shell of the connection 11 is made in general rounded form, having at its lower part a nipple 12 to receive the end of the street service-pipe 1 and at one side a similar nipple 13 to receive the end of a pipe 14, which extends horizontally and has at its end an



elbow connection 15 to receive the union 10 at the end of the gooseneck of one meter, as 3. The shell or casing 11 also has at its upper part a nipple 16 to receive the union 10 at the lower end of the gooseneck of the other meter, and in the said shell or casing 11 is formed a chamber in which fits and turns a hollow three-way plug or valve 17, two ports 21 and 23 of which are diametrically opposite each other and are adapted to correspond, when the valve is turned, with the nipples 12 and 16 of the street service-pipe 1 and the gooseneck of meter 2, while the other port 22 of said valve is midway between the ports 21 and 23 and is adapted to correspond, when the valve is turned, as shown in Fig. 2, with the nipple 13, through which the other meter 3 is supplied with gas. By this construction and arrangement it will be seen that both meters 2 and 3 may be supplied from the single street service-pipe 1 by turning the valve 17 to the position shown in Fig. 2, and also by turning said valve a half-rotation from the position shown in said figure the meter 3 may be cut off, leaving the meter 2 connected for service with the street service-pipe 1. By turning the valve one-quarter of a full rotation from the position shown in Fig. 2 the connection with meter 2 may be cut off, while that with meter 3 will be reestablished, and by a three-quarter turn on the valve from the position shown in Fig. 2 both meters 2 and 3 may be cut off from the street service-pipe. The valve 17 has one end projected outside the casing, as shown in Figs. 1, 3, and 4, and provided with a handle 18, by means of which the valve may be turned, and the projecting end of the valve is also provided, as shown at 19 in Fig. 3, with properly-located index-marks to register with marks on the casing to indicate the several positions of the valve. The shell or casing of the connection 11 is also formed between the nipples 13 and 16 with an integral lug or projection 24, having an opening 25 adapted for the passage of a padlock-hasps or the like, such hasp or bow being preferably made to fit snugly in said opening, as indicated at 27 in Fig. 3, and the lug or projection has at one side of said opening 25 a niche or recess 26, adapted to receive a wire seal 33, as shown in Fig. 3, without interfering with the ready insertion and removal of the padlock-hasps 27. This lug or projection is adapted to operate in connection with devices carried by fittings adapted for engagement with the nipples 13 and 16 of the shell or casing to permit such fittings to be locked in position by means of either a lock or seal, or by both, so that the escape or discharge of gas from the street service-pipe after either or both the meters 2 and 3 have been removed is effectually prevented. A lug or projection 24<sup>a</sup> similar to the lug 24 is also provided on the casing 11 between the nipples 13 and 12 and serves to permit fittings to be locked when connected to these nipples. By providing the two lugs or projections it

will be seen that the casing 11 of the connection is made reversible, so as to better adapt it for use.

The plug 28 is employed for closing the nipple 16 of casing 11 when the meter 2 has been removed, and this plug or fitting is made in the form of an interiorly-screw-threaded cap screwing on said nipple, as shown in Fig. 3, and having at its central part a headed pin or stud 29, on which is held a swiveled locking-arm 31, having one end flattened and provided with a perforation 30 for the passage of the body portion of the pin or stud 29 beneath the head thereof, so as to hold the arm 31 to turn upon the cap or plug 28, the other end 32 of said arm being curved or bent down and flattened in a plane at right angles to the swiveled end of the arm to permit it to fit flush against one side of the lug 24 of casing 11 or against one side of the lug 24<sup>a</sup> in case the shell or casing be inverted. The extremity 34 of said curved end of the arm is made rounded and is provided with an opening 35, corresponding in size and form to the opening 25 of lug 24, for the passage of the hasp 27, and is also formed with a niche or recess 36 for the passage of a wire seal 33 when the hasp is in place. The stud or pin 29 is passed through the central part of the cap or plug 28 and is riveted or enlarged inside the same, as shown at 29<sup>a</sup>, in order to secure it in place on the cap or plug.

The cap or plug 28 is made with a polygonal or flat-sided body to permit the ready application of a wrench for screwing it upon the nipple 16, and when it is desired to disconnect the meter 2 it is only necessary, after properly setting the valve 17, to remove the union 10 from said nipple and apply and screw thereon the cap or plug, the swivel-arm 31 turning freely to permit this to be done. When the plug or cap 28 is in place, the arm 31 is turned around until its flattened extremity 34 is flush with the lug or projection 24, after which the padlock-hasps and seal-wire, or either, are passed through the corresponding openings to lock and seal the connection against unauthorized tampering. A similar means is provided for use in cutting off the meter 3 independently of the meter 2 or in connection therewith, the one lug or projection 24 and a single lock and seal serving to secure both plugs or caps. The plug 37 for cutting off the meter 3 is made to screw into the nipple 13 of the casing or shell 11 and has a flange 38 to fit on the nipple when screwed home and a polygonal or flat-sided head 39 to receive a wrench whereby it may be applied and removed. The head 39 is also provided with a headed pin or stud 40, on which is held to turn a swiveled part or arm 41, similar to the arm 31, and provided with a curved and flattened end 42, the extremity 43 of which is adapted to fit flush against the side of the lug or projection 24 opposite to the arm 31 of plug or cap 28 and is similarly perforated for the passage of the padlock-hasps



and seal-wire. By this means it will be seen that the improved connection permits of supplying from a single street service-pipe independent meter systems, which may be respectively employed for heating and lighting or otherwise, and at the same time either or both of the meters may be readily cut off and the connection locked and sealed without necessitating the removal of the connection from the street service-pipe or interfering in any way with the remaining meter where but one of the meters is cut off. When desired, also, the gooseneck may be locked against detachment from the connection 11 or elbow 15 by the means shown in Fig. 1 and comprising arms or parts 45, swiveled upon the goosenecks above the unions 10 and having downwardly-bent end portions 44 for engagement with lugs or projections 46 upon casing 11 and fitting 15, respectively, said end portions 44 and lugs 46 being perforated for the passage of a padlock-haspl 27 or seal-wire, as will be readily understood. In a similar way swiveled parts 48 are provided upon the opposite ends of the goosenecks held to turn above the unions 9 and having depending end portions 47 adapted to correspond with lugs or projections 49 upon the sides of the meter-casings, said lugs 49 and the end portions 47 being perforated for the passage of the haspl 27 and seal-wire to permit the connections between the goosenecks and the meters to be locked and sealed.

From the above description it will be seen that the device constructed according to my invention is of an extremely simple and inexpensive nature and is especially well adapted for use, since it permits all of the main connections to be locked and sealed against tampering when desirable, and it will also be obvious from the above description that the device is capable of some modification without material departure from the principles and spirit of the invention, and for this reason I do not wish to be understood as limiting myself to the precise form and arrangement of the several parts herein set forth.

Having thus described my invention, I claim—

1. In a device of the character described, the combination of a street service-pipe, two meters having goosenecks provided with stiff meter-sections and pliant sections, a casing connected to the street service-pipe and also to the pliant sections of the respective goosenecks and a three-way valve controlling the flow of gas from the street service-pipe through the casing to the goosenecks, substantially as set forth.

2. A three-way meter connection comprising a casing having nipples to receive a street service-pipe and two meter connections, a three-way valve controlling the flow of gas through the casing, plugs to cut off the meters, swiveled arms held by the plugs, and a projection on the casing with which the swiveled arms are adapted to correspond, said arms and projection being correspondingly perforated for the passage of a padlock-haspl or the like, substantially as set forth.

3. A meter connection comprising a casing having a nipple to receive a fitting and provided with a perforated projection, a fitting for engagement with said nipple and a perforated arm swiveled on the fitting with its opening adapted to correspond with that of the projection of the casing for the passage of a padlock-haspl, or the like, substantially as set forth.

4. A gooseneck connection for meters formed of a curved stiff metal meter-section and a pliant metal section joined thereto, and union-couplings held on opposite ends of said gooseneck connection, substantially as set forth.

5. A three-way meter connection comprising a casing provided with a lug having three nipples, one to receive a street service-pipe, the other two nipples being each adapted to receive a fitting connecting it with a meter, or closing it against the passage of gas, fittings for engagement with said last-mentioned two nipples, a three-way valve controlling the flow of gas through the casing and a device pivoted on one of the fittings and having means to receive a locking device whereby it may be locked to the lug of the casing, substantially as set forth.

6. In a device of the character described, the combination of a street service-pipe, a casing having two nipples one connected to the street service-pipe and the other adapted to receive a fitting connecting the casing with a meter or closing the nipple against the passage of gas, the said fitting, and two parts, one carried by the fitting and the other carried by the casing, said parts being adapted, when the fitting is in place, to correspond with each other and to receive a locking device for holding the fitting to the casing, substantially as set forth.

Signed by me at Cincinnati, State of Ohio, this 25th day of August, 1899.

JOHN FRANKLIN.

Witnesses: .

JOHN ELIAS JONES,  
J. D. THORNE.