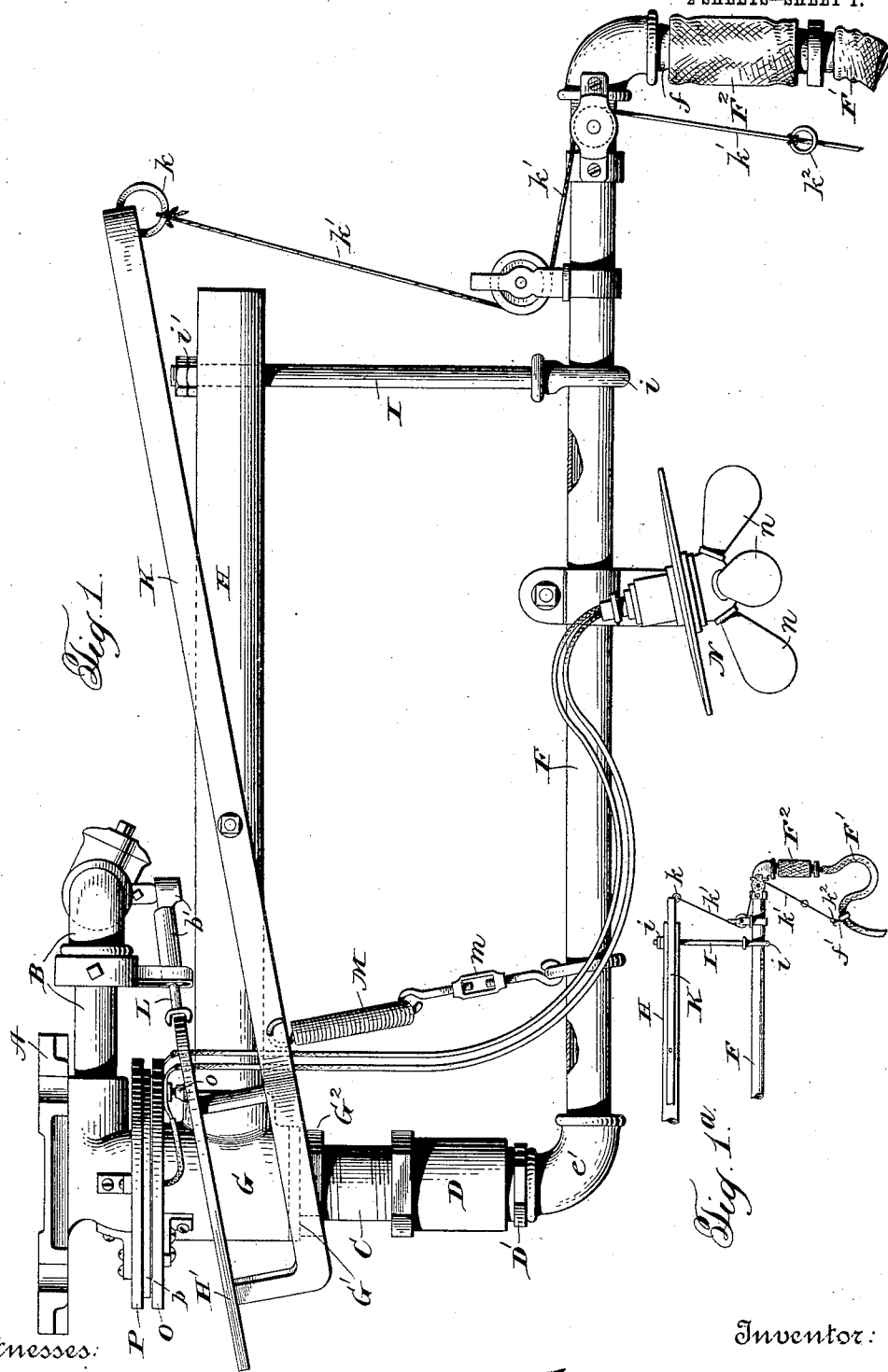


948,337.

E. MULLER.
VEHICLE WASHER.
APPLICATION FILED MAY 24, 1909.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses:

Jas. Hutchinson,
Thos. R. Stearns.

Inventor:

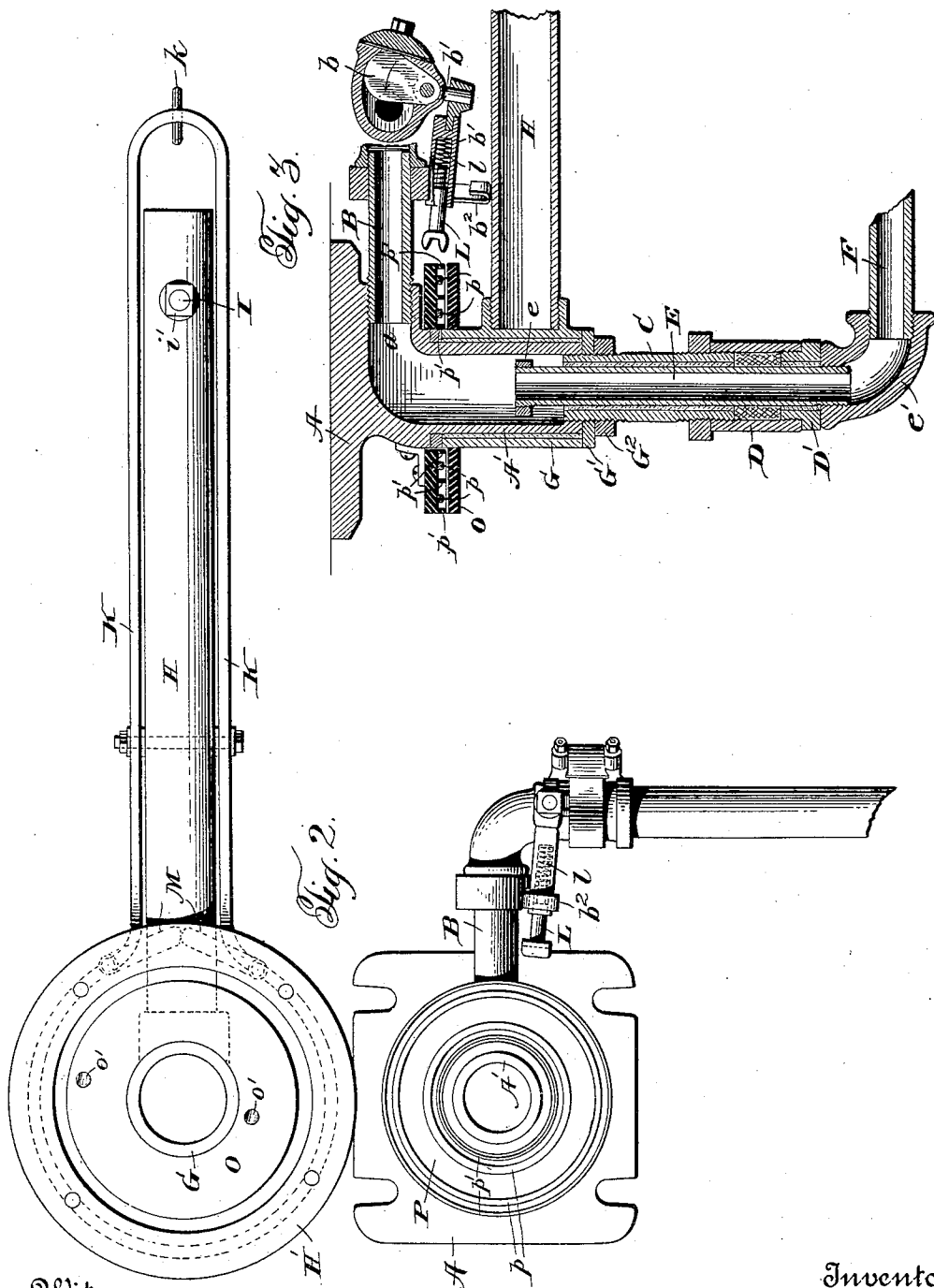
Edward Muller,

By J. W. Hunter Attorney.

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2 SHEETS—SHEET 2.



Witnesses:
Jas. C. Hutchinson,
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UNITED STATES PATENT OFFICE.

EDWARD MULLER, OF WEEHAWKEN, NEW JERSEY.

VEHICLE-WASHER.

948,337.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed May 24, 1909. Serial No. 497,965.

To all whom it may concern:

Be it known that I, EDWARD MULLER, a citizen of the United States, residing at Weehawken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Vehicle-Washers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improvement in carriage or vehicle washers and more particularly to that type of carriage or vehicle washers in which the water delivery pipe is swiveled to a water supply pipe which is fixedly secured to a ceiling or overhead support.

The object of the present invention is the provision of a device of this character in which means is provided for automatically controlling the passage of water to the delivery pipe.

A further object of the invention is the provision in a device of this character of a swiveled delivery pipe which is so supported and constructed as to be free from all strain.

A further object of the invention is the provision of a device of this character of such a construction as to prevent leakage at the joints and of such a construction that the swiveled delivery pipe cannot bind during rotation.

A further object of the invention is the provision of a device of this character, the swiveled delivery pipe of which carries an electric light or lights, the electrical connections to such light or lights being such that current will be supplied to the light or lights at all time regardless of the position to which the delivery pipe may be moved.

Other objects of the present invention will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings forming a part hereof, wherein a convenient embodiment of the invention is illustrated and wherein like characters of reference refer to similar parts of the several views.

In the drawings, Figure 1 is a side elevation of the improved vehicle or carriage washer, the hose being shown disconnected from the valve operating lever, Fig. 1^a is a partial side elevation showing the hose connected to the valve operating lever, Fig. 2 is a plan view of the supporting member and swiveled pipe, the parts being shown disconnected, and Fig. 3 is a longitudinal sec-

tion illustrating the manner of supporting the delivery pipe.

Referring now more particularly to the drawings A designates a supporting plate which is adapted to be bolted or otherwise attached to the ceiling or other overhead support to which the device is to be secured. Depending from the supporting frame A and formed integral therewith is a heavy tubular portion A', which is provided with a laterally disposed inlet opening *a* adjacent the top thereof. Threaded into the inlet opening *a* or otherwise coupled thereto is one end of an elbow B, to the other end of which is connected in any suitable manner the usual water inlet pipe. Positioned within the arm of the elbow B which is connected to the water inlet pipe is a swinging gate valve *b*, the projecting end of the operating shaft of which is squared and has secured thereon an arm *b'* the free end of which works in a vertically disposed guide *b*², which is clamped in any suitable manner to the arm of the elbow B which is secured to the inlet opening *a*, the outer end of the arm *b'* being hollow for a purpose to be hereinafter more particularly set forth. Threaded or otherwise secured into the lower end of the heavy tubular portion A' which depends from the supporting plate A is an elongated tube C, which is provided on its interior with a lining of Babbitt or other anti-friction metal. Threaded upon the lower end of the pipe C is a packing sleeve D, which is normally held against upward movement on the pipe C by a lock nut threaded on the pipe C and bearing against the upper end of the packing sleeve. Rotatably supported within the pipe C and closely fitting the same is a pipe E, the upper end of which is provided with a suitable collar or flange *e* thereon and the lower end of which projects below the lower end of the packing sleeve D and is connected to one arm of an elbow *e'*, to the other arm of which is connected a laterally disposed delivery pipe F, the outer end of which is provided with a nipple *f* to permit the attachment of a section of hose thereto. The interior of the packing sleeve D is filled with a packing of any suitable construction which prevents leakage between the pipe E and the pipe C, the lower end of said packing sleeve being closed by a packing nut which is adjustably secured therein in any suitable manner, said nut fitting the pipe E

snugly and being provided preferably with a lining of Babbitt metal or other anti-friction material which bears thereagainst. From this construction it will be apparent that the packing nut D' may be actuated to compress the packing in the sleeve D against the pipe E and should the range of movement of the nut D' be insufficient to compress the packing to the desired extent, it will be apparent that the packing sleeve itself can be adjusted upwardly on the lower end of the pipe C to reduce the size of the chamber in which the packing is secured and thereby bring about the desired result.

G designates a T union of the usual construction which is rotatably supported upon the exterior of the downwardly extending tubular portion A' of the supporting plate, said union resting upon a heavy metallic washer G' which surrounds the pipe C and is held in position by a nut G² threaded thereon. The union G is preferably provided with a lining of Babbitt metal or other anti-friction material to cause the same to turn easily upon the downwardly extending tubular portion A' of the supporting plate A. Projecting laterally from the union G is an elongated rigid arm H which is provided at the other end thereof with a depending rod I, the lower end of which is provided with a loop i which encircles the laterally disposed delivery pipe F and supports the same. The rod I is preferably adjustable, the upper end thereof passing through the arm H and having threaded or otherwise adjustably secured thereon a nut i'. From this construction it will be seen that the entire weight of the delivery pipe and hose is carried entirely by the arm H which has a bearing against the heavy tubular portion A' of the supporting plate, so that no strain whatever is brought upon the pipe E. Under normal conditions the weight of the hose at the outer end of the delivery pipe serves to hold the elbow e' at the inner end thereof in contact with the packing nut D' and the pipe E is of such a length that under these conditions the collar or flange e at the top thereof is positioned a considerable distance above the top of the pipe C. It will thus be seen that the collar or flange e is not relied on to assist in supporting the delivery pipe but is used merely to prevent excessive downward movement of the pipe E in the pipe C. Owing to the construction just described, it will be seen that the pipe E can move longitudinally for a slight distance in the pipe C. This prevents any danger of canting of the pipe E when the delivery pipe is swung around and subjected to the various strains incident to such swinging movement. A further advantage of making the pipe E of such a length that it is permitted a slight amount of longitudinal movement in the pipe C is that the packing sleeve D can be repacked without dismantling the entire apparatus.

K designates a lever which is fulcrumed intermediate the ends thereof to the rigid arm H and supported by the inner end of said lever is a flat ring H' which surrounds the union G above the connection of the arm H therewith. Slidably mounted within the hollow end portions of the arm b' which is secured to the operating shaft of the gate valve b heretofore described is a rod L, the outer end of which is bifurcated to engage the periphery of the ring H' carried by the lever K, said bifurcated portion being held in engagement with the periphery of the ring H' by means of a coiled spring l interposed between the end of the rod L and the base of the hollow recess in the end of the arm b', said spring being preferably secured to the end of the rod L so as to be capable of removal therewith. From this construction it will be apparent that as the delivery pipe is rotated the ring A' will always be held in engagement with the bifurcated end of the rod L, so that by moving the lever K the arm b' and consequently the gate valve B can be operated to admit or cut off the supply of water to the delivery pipe F. The inner end of the lever K is connected by a spring or springs to the inner end of the delivery pipe F, the tension of such springs serving to normally depress the inner end of the lever K and to thereby close the gate valve b and cut off the supply of water to the delivery pipe. The spring or springs M are preferably connected to the delivery pipe F by a connection in which is interposed a turn buckle m so that the tension of the spring or springs can be regulated. The outer end of the lever K projects slightly beyond the outer end of the rigid arm H and has secured thereto a ring k to which is attached one end of a rope or cable k'. The rope or cable k' passes over suitable guide pulleys secured to the delivery pipe F adjacent the outer end thereof and hangs down alongside of the hose F' which is connected to the delivery pipe F and is provided at its lower end with a ring k². Secured to the hose F' by a clip or other suitable fastening device is a hook f', which is adapted when the device is to be used to be engaged with the ring k² secured to the cable k'. The hook f' is secured to the cable F' in such a position that when it is engaged with the ring k² of the cable k', a loop will be formed in the hose, the weight of which is sufficient to pull down the outer end of the lever K, thereby opening the valve b and permitting water to flow to the delivery pipe. It will thus be seen that in use the operator merely has to engage the hook f' on the hose with the ring k² of the cable k', after which time the water will pass continuously to the delivery pipe. To

cut off the water the hook is disengaged from the ring, which relieves the lever K from the weight of the looped portion of the hose when the springs M will at once restore the same to its normal position thereby closing the gate valve *b* and cutting off the supply of water to the delivery pipe.

Instead of securing the hook *f'* to the hose F' in such a position that the weight of the looped portion of the hose will be sufficient of itself to lower the outer end of the lever K, the tension of the spring or springs M may be so adjusted that the looped portion will not be sufficient in itself to lower the lever, but that when a slight pull downward is imparted to the looped portion, the outer end of the lever will be drawn downward and the weight of the looped portion of the hose will be sufficient to hold the same in its downward position until the looped portion of the hose is raised slightly, when the springs M will at once restore the lever to its normal position. It will thus be seen that the spring or springs M can be so tensioned and the device so balanced that the operator can by raising and lowering the looped portion of the hose control the supply of water to the delivery pipe.

The cable *k'* is preferably provided with one or more of the rings *k''*, so that if the operator is compelled to get on top of the vehicle, the hook *f'* may be engaged with a ring secured to the cable adjacent the upper end thereof so that a looped portion will still be left in the hose.

As it has been found that the hose wears very quickly at the point of its connection to the delivery pipe, I preferably instead of attaching the same directly to the nipple *f* at the end of the delivery pipe F, attach the same to one end of a short section of hose F², the other end of which is connected to the nipple *f* at the outer end of the delivery pipe, said short section of hose being made of material which is much stronger and more durable than that of which the hose F' is made.

Supported in any suitable manner from the swiveled delivery pipe F adjacent the outer end thereof is an electric lamp or cluster of lamps N from which electric conductors extend to a pair of binding posts *oo*, which are secured to the under side of a ring or plate O of fiber or other suitable insulating material, which ring is secured in any suitable manner around the upper end of the union G and is rotatable therewith. Positioned directly above the ring O is a ring or plate P similar in construction, which is formed of fiber or other suitable insulating material and is fixedly secured to the supporting plate A around the depending tubular portion A' thereof. Secured to the under side of the ring P are two concentrically arranged metallic rings

pp, which are adapted to be connected in any suitable manner to the line wires of a lighting circuit. To prevent arcing between the contact members insulating rings *p'* are positioned between and outside of the metallic rings *pp*. In the form of the invention illustrated in the drawing, these rings are shown as formed integral with the ring or plate P but it is obvious that they may be made separate if desired. Secured to the upper side of the ring O are two contact members *o'o'* the faces of which are grooved to engage the rings *pp* heretofore described. The contact members *o'o'* are connected by suitable electrical connections to the binding posts *oo* heretofore described so that it will be apparent that regardless of the position to which the delivery pipe may be shifted, current will always pass from the lighting circuit to the lamp or lamps *n*. A suitable switch will be interposed at some point in the circuit so that the lamp or lamps may be disconnected when desired.

While the automatic cutoff for controlling the passage of water to the delivery pipe is an important feature of the invention, it will be apparent from the construction heretofore described that should the operator desire to do so, the rod L may at any time be removed from the arm *b'* which is secured to the operating shaft of the valve *b* and the valve moved to an open position, after which time the supply of water can be controlled by a manually operated valve which is always interposed in the water inlet pipe of devices of this character.

While a convenient embodiment of the invention is illustrated in the accompanying drawings, it will be understood that many changes may be made to the form and construction therein shown without departing from the spirit of the invention.

What I claim is:

1. In a device of the character described, a fixed inlet pipe provided with an elongated downwardly extending portion, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of the downwardly extending portion of the inlet pipe and rotatably supported therein, and means for engaging said laterally disposed delivery pipe intermediate the ends thereof and constituting the sole support therefor.

2. In a device of the character described, a fixed inlet pipe provided with an elongated downwardly extending portion, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of the downwardly extending portion of the inlet pipe and rotatably supported

therein, a laterally disposed arm rotatably mounted on the downwardly extending portion of the inlet pipe, and a hanger depending from said arm and engaging the laterally disposed delivery pipe intermediate the ends thereof said hanger constituting the sole support for said delivery pipe.

3. In a device of the character described, a fixed inlet pipe provided with an elongated downwardly extending portion, a packing box secured to the lower end of the downwardly extending portion of the inlet pipe, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of the downwardly extending portion of the inlet pipe, and means for engaging the delivery pipe intermediate the ends thereof said means constituting the sole support for said delivery pipe.

4. In a device of the character described, a fixed inlet pipe provided with an elongated downwardly extending portion, a packing box adjustably secured to the lower end of the downwardly extending portion of the inlet pipe, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of the downwardly extending portion of the inlet pipe, a rigid laterally disposed arm rotatably mounted on the downwardly extending portion of the inlet pipe, and a hanger depending from said arm and engaging the laterally disposed delivery pipe intermediate the ends thereof so as to constitute the sole support therefor.

5. In a device of the character described, a supporting plate provided with a heavy tubular portion depending therefrom, an elongated pipe secured to the lower end of said tubular portion, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of said elongated pipe and rotatably supported therein, said upturned portion being also free to move longitudinally in said elongated pipe, a laterally disposed arm rotatably supported upon the tubular portion of the supporting plate, and a connection depending from the outer end of said arm and supporting the laterally disposed delivery pipe intermediate the ends thereof.

6. In a device of the character described, a supporting plate provided with a depending tubular portion, an elongated pipe secured to the lower end of said tubular portion, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of said elongated pipe and rotatably sup-

ported therein, a collar on the upper end of the upturned portion of the delivery pipe, said collar being normally spaced from the top of the elongated pipe secured in the lower end of the tubular portion of the supporting plate, and means for supporting the laterally disposed delivery pipe intermediate the ends thereof.

7. In a device of the character described, a supporting plate provided with a depending tubular portion, an elongated pipe secured to the lower end of said tubular portion, a packing box adjustably secured to the lower end of said elongated pipe, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of said elongated pipe and rotatably supported therein, a collar on the upper end of the upturned portion of the delivery pipe, said collar being normally spaced from the top of the elongated pipe secured in the lower end of the tubular portion of the supporting plate, and means for supporting the laterally disposed delivery pipe intermediate the ends thereof.

8. In a device of the character described, a supporting plate provided with a depending tubular portion an elongated pipe secured to the lower end of said tubular portion, a packing box adjustably secured to the lower end of said elongated pipe, a laterally disposed delivery pipe provided with a hose connection at the outer end thereof and with an upturned portion at the inner end thereof closely fitting the interior of said elongated pipe and rotatably supported therein, a collar on the upper end of the upturned portion of the delivery pipe, said collar being normally spaced from the top of the elongated pipe, an arm rotatably supported upon the depending tubular portion of the supporting plate, and a hanger depending from the end of said arm and engaging the laterally disposed delivery pipe intermediate the ends thereof.

9. In a device of the character described, a fixed inlet pipe, a delivery pipe rotatably connected to said fixed inlet pipe, a valve in the fixed inlet pipe, a hose connected to the end of the delivery pipe, and a connection between the valve and hose whereby the weight of the hose will hold the valve in its open position.

10. In a device of the character described, an inlet pipe, a laterally disposed delivery pipe rotatably connected to the inlet pipe, a valve in the inlet pipe, a hose connected to the outer end of the delivery pipe, means for normally holding the valve in a closed position, and a detachable connection between the valve and hose whereby the weight of the hose will hold the valve in its open position.

11. In a device of the character described, a fixed inlet pipe, a laterally disposed delivery pipe rotatably connected to the inlet pipe, a valve in the inlet pipe, a lever rotatable with the laterally disposed inlet pipe, and connections between the valve and lever whereby the valve can be actuated by the lever in any position of the delivery pipe.
12. In a device of the character described, a fixed inlet pipe, a laterally disposed delivery pipe rotatably connected to the inlet pipe, a valve in the inlet pipe, means for normally holding said valve in a closed position, a lever for opening said valve rotatable with the delivery pipe, a hose connected to the delivery pipe, and a connection between the valve operating lever and the hose.
13. In a device of the character described, a fixed downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a lever rotatable with the laterally disposed delivery pipe and provided at its inner end with an annular portion surrounding the downwardly extending inlet pipe, a valve in the inlet pipe, said valve being provided with an operating portion lying in the path of the annular ring of the lever.
14. In a device of the character described, a downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a lever rotatable with the laterally disposed delivery pipe and provided at its inner end with an annular portion surrounding the downwardly extending inlet pipe, a valve in the inlet pipe, and an actuating arm for said valve, the outer end of which loosely engages the annular portion of the lever.
15. In a device of the character described, a downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a lever rotatable with the delivery pipe and provided at its inner end with an annular portion surrounding the downwardly extending inlet pipe, a valve in the inlet pipe, an actuating arm for said valve bifurcated at its outer end to loosely engage the annular portion of the lever, and a spring acting on the lever to normally maintain said valve in a closed position.
16. In a device of the character described, a downwardly extending inlet pipe, a delivery pipe rotatably connected to the inlet pipe, a lever rotatable with the delivery pipe and provided at its inner end with an annular portion surrounding the downwardly extending inlet pipe, a valve in the inlet pipe, an actuating arm for said valve loosely engaging the annular portion of the lever, a spring acting on the lever to normally maintain said valve in a closed position, a hose connected to the delivery pipe, and a connection between the hose and the lever.
17. In a device of the character described, a downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a lever rotatable with the laterally disposed delivery pipe and provided at its inner end with an annular portion surrounding the downwardly extending inlet pipe, a valve in the inlet pipe, an actuating arm for said valve, said arm being provided at its outer end with a spring pressed portion loosely engaging the annular portion of the lever.
18. In a device of the character described, a downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a lever rotatable with the delivery pipe and provided at its inner end with an annular portion surrounding the downwardly extending inlet pipe, a valve in the inlet pipe, an actuating arm for said valve provided with a recess in the end thereof, and a spring pressed member removably fitted in the recess in said arm and provided at its outer end with a bifurcated portion engaging the annular portion of the lever.
19. In a device of the character described, an inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a valve in the inlet pipe, a lever rotatable with the delivery pipe and provided with a portion adapted to continuously engage the actuating arm of the valve, a spring acting on the lever to normally hold the valve in a closed position, means for adjusting the tension of said spring, a hose extending from the delivery pipe, and a connection between the hose and the lever.
20. In a device of the character described, an inlet pipe, a delivery pipe rotatably connected to said inlet pipe, a hose connected to the delivery pipe, a valve in the inlet pipe, a lever rotatable with the delivery pipe and provided with a portion adapted to continuously engage the actuating arm of the valve, a spring acting on the inner end of the lever to normally hold the valve in a closed position, a cord depending from the inner end of said lever, a ring supported by said cord, and a hook carried by the hose and adapted to be engaged in said ring.
21. In a device of the character described, a fixed downwardly extending inlet pipe, a laterally disposed delivery pipe provided with an upturned portion rotatably fitted within the downwardly extending inlet pipe, an arm rotatably supported upon the downwardly extending inlet pipe, a hanger depending from said arm and engaging the delivery pipe intermediate the ends thereof, a valve in the inlet pipe, an actuating arm for said valve, a lever fulcrumed on the arm rotatably mounted on the inlet pipe, said lever being provided with a portion adapted to continuously engage the actuating arm of the valve.
22. In a device of the character described, a downwardly extending inlet pipe, a lat-

erally disposed delivery pipe fitted within
the downwardly extending pipe, a hose con-
nected to the end of the delivery pipe, an
arm rotatably supported upon a down-
5 wardly extending portion of the inlet pipe,
a hanger depending from said arm and en-
gaging the delivery pipe intermediate the
ends thereof, a lever fulcrumed on said arm
and provided at its inner end with an an-
10 nular portion surrounding the downwardly
extending inlet pipe, a valve in the inlet
pipe, an actuating arm for said valve the
outer end of which engages the annular por-
tion of the lever, a spring connecting the in-
15 ner end of the lever and the delivery pipe,
and a connection between the outer end of
the lever and the hose.

23. In a device of the character described,
a fixed inlet pipe provided with a down-
wardly extending portion, a support rota- 20
table around said inlet pipe, and a laterally
disposed delivery pipe supported interme-
diate its ends from said support, said deliv-
ery pipe being provided at its inner end
with an upwardly extending portion loosely 25
fitting the downwardly extending portion of
the pipe and free to move longitudinally
therein.

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

EDWARD MULLER.

Witnesses:

THOS. R. HEATH,
A. E. HUTCHINSON.