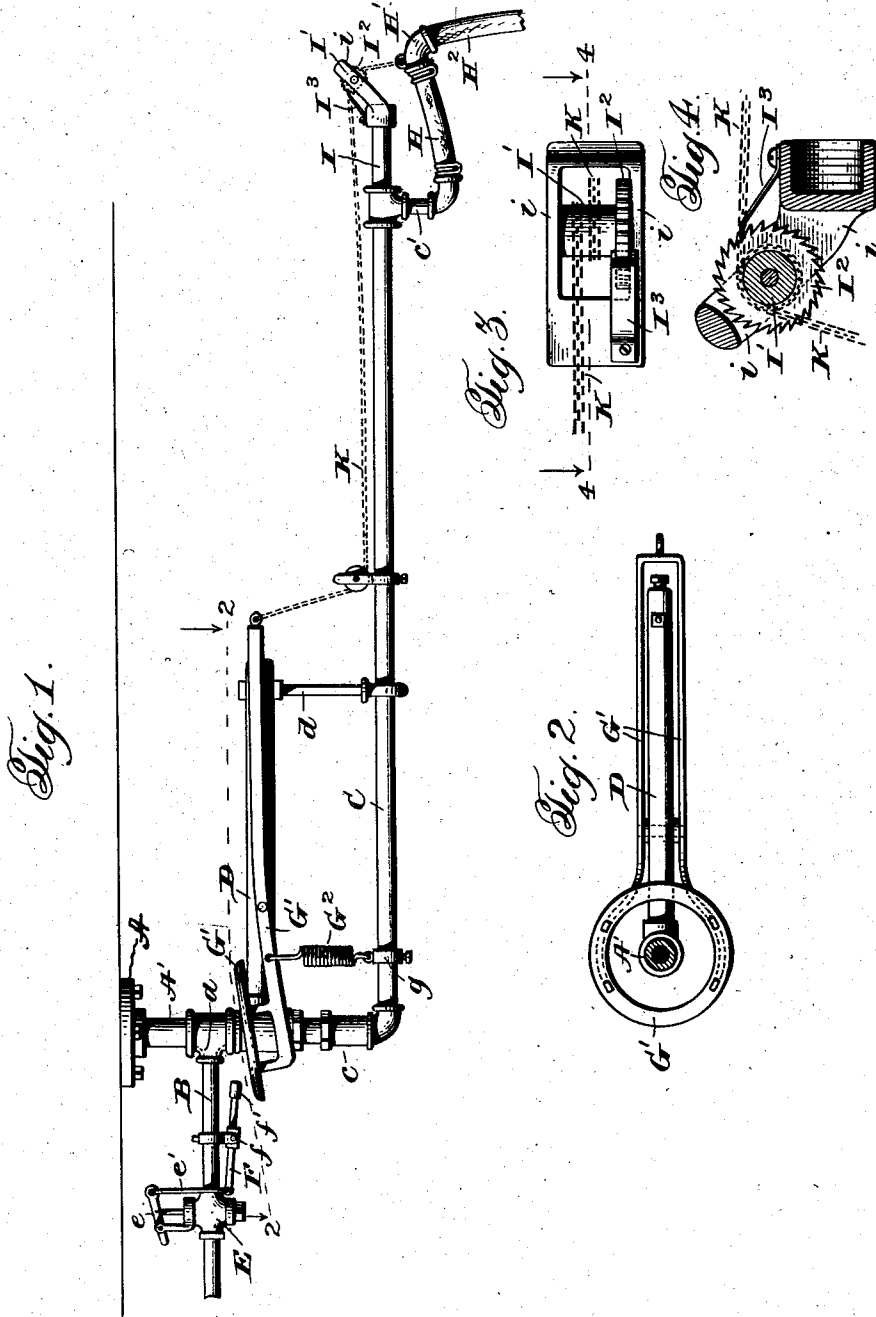


E. MULLER.
VEHICLE WASHER.
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Witnesses:

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UNITED STATES PATENT OFFICE.

EDWARD MULLER, OF EAST NEW DURHAM, NEW JERSEY.

VEHICLE-WASHER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD MULLER, a citizen of the United States, residing at East New Durham, 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 connected to a water supply pipe which is secured to a ceiling or overhead support.

The object of the present invention is the provision of a vehicle washer of this type which is provided with improved means for controlling the operation of the valve which regulates the flow of water to the water delivery pipe.

A further object of the invention is the provision in a washer of this character, of a valve for controlling the flow of water to the delivery pipe, and a connection between said valve and the flexible hose which extends from the delivery pipe, which connection is of such a character that when a pull is imparted to the flexible hose, the valve will be opened to permit water to flow therethrough and which connection is also of such a construction that it may be adjusted so that the valve will either remain open or be automatically closed as soon as the hose is released.

Other objects of the 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 in the several views.

In the drawings:—Figure 1 is a side elevation of the improved vehicle or carriage washer; Fig. 2 is a top plan view of the lever which is used for operating the valve in the water supply pipe and the means used to support said lever; Fig. 3 is a top plan view of the extension which is secured to the outer end of the delivery pipe and the parts carried thereby; and Fig. 4 is a longitudinal section taken on line 4—4 of Fig. 3, looking in the direction of the arrows.

Referring now more particularly to the drawings, A designates a supporting plate

which is adapted to be bolted or otherwise attached to a ceiling or other overhead support, and from which depends a tubular portion A' which is provided with a laterally disposed inlet opening *a* to which is connected a fixed water supply pipe B.

C designates the water delivery pipe which is provided at its inner end with an upturned portion *c* which is swiveled in any suitable manner in the tubular portion A' depending from the supporting plate A, so as to permit the delivery pipe to be freely rotated. Rotatably mounted upon the exterior of the tubular portion A' is a laterally extending arm D from the outer end of which depends a hanger *d* which engages the laterally extending delivery pipe C intermediate the ends thereof and serves to assist in supporting the same. Positioned within the water supply pipe B is a valve E which controls the passage of water to the laterally swinging delivery pipe C. The valve E may be of any suitable construction and in the form of the invention illustrated in the drawings, I have shown a reciprocating valve, the stem of which projects upwardly through the valve casing and is adapted to be actuated by a lever *e* which is fulcrumed to the valve casing and overlies the projecting end of the valve stem, which lever is connected by a suitable link *e'* with one end of a lever F, which is fulcrumed intermediate its ends to a support *f* secured in any suitable manner to the water supply pipe B. The inner end of the lever F is provided with a friction roller *f'*.

G designates a lever which is fulcrumed intermediate the ends thereof to the arm D which is rotatably supported upon the exterior of the tubular portion A' depending from the supporting plate A. Supported by the inner end of the lever G is a ring G' which is positioned above the arm D and encircles the portion of the arm D which is rotatably mounted upon the exterior of the tubular portion A' which depends from the supporting plate A. The ring G' directly underlies the inner end of the lever F and is adapted to contact with the friction roller *f'* mounted thereon when the lever G is actuated, thus actuating the lever F and shifting the valve E to a position to permit water to flow from the supply pipe to the laterally extending delivery pipe C. Any suitable means is provided for normally holding the valve E in a closed position.

From this construction it will be seen that by actuating the lever G the valve in the water supply pipe may be actuated regardless of the position occupied by the laterally swinging delivery pipe C. The inner end of the lever G is connected to the upper end of a coil spring G², the lower end of which is secured to a collar g which is secured by means of a suitable set screw on the inner end of the laterally extending delivery pipe C.

The outer end of the laterally extending delivery pipe is closed and said pipe is provided at the outer end thereof with a laterally extending branch c' to which is secured a short flexible hose section H, the outer end of which is provided with a suitable coupling H' to which is detachably connected a hose H² of any well known construction. Projecting outwardly from the closed end of the laterally extending delivery pipe C is a short extension I which terminates at its free end in a pair of upwardly extending separated arms i. Rotatably mounted between the arms i of the extension I is a sheave I' which is provided with a smooth, wide bearing surface. Connected to one end of the sheave I' so as to rotate therewith is a ratchet wheel I² the teeth of which extend rearwardly. Movement of the ratchet wheel in a rearward direction is normally prevented by means of a spring pawl I³ which is secured to the extension I and engages the teeth of the ratchet wheel. The pawl I² is removably secured to the extension I so that it may be removed when it is desired to permit the sheave to rotate freely in both directions.

K designates a chain or cable one end of which is secured to the free end of the lever G, heretofore referred to, and the other end of which is secured to the free end of the short hose section H in any suitable manner. The intermediate portion of the chain or cable K passes under a guide pulley secured to the laterally extending delivery pipe C intermediate the ends thereof and is wound one or more times around the sheave I'.

In the use of the device as above described, the operator merely pulls downwardly upon the hose H². As the cable K is wound about the sheave I' one or more times and as such cable is held taut by the spring actuated lever G, which is connected thereto, it will be seen that when a downwardly pull is exerted upon the hose, the sheave I' will be rotated in a forward direction, thus winding up on the cable and elevating the inner end of the lever G and thus opening the water supply valve. The spring pawl I³ normally prevents rearward rotation of the sheave I' so that as the hose is released, the sheave will remain stationary and the tension on the cable K is sufficient to prevent the same from slipping around the stationary sheave,

so that the parts will remain in the position to which they have been moved and the water will continue to flow through the delivery pipe. When it is desired to cut off the flow of water, the hose is elevated to slacken the cable or chain H which permits it to slip around the sheave I' and thus permits the spring G² to pull the inner end of the lever G out of engagement with the valve operating lever F.

Many operators desire a device in which the water will flow only so long as a pull is exerted upon the hose, and when it is desired to have the device operate in this manner, it is only necessary to disengage the spring pawl I³ from the ratchet I² so as to permit free rotation of the sheave I'. When this is done, it will be obvious that whenever the pull on the hose is released, the spring G² will immediately act to shift the parts to a position to cut off the flow of water.

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

What I claim is:—

1. In a vehicle washer, a water supply pipe, a flexible hose connected to said water supply pipe, a valve controlling the passage of water from said water supply pipe to said hose, an actuating member for said valve, means tending to shift said actuating member to a position to effect the closing of the valve, a rotary sheave positioned between the valve actuating member and the hose, means for preventing movement of said sheave in one direction, and a flexible connection between said actuating member and said hose, said flexible connection having an intermediate portion wound around said sheave.

2. In a vehicle washer, a water supply pipe, a flexible hose connected to said water supply pipe, a valve controlling the passage of water from said water supply pipe to said hose, an actuating member for said valve, means tending to move said actuating member to a position to effect the closing of the valve, a sheave rotatably supported between said valve actuating member and said hose, a ratchet wheel rotatable with said sheave, a pawl normally engaging said ratchet wheel to prevent rotation of said sheave in one direction, said pawl being movable to a position to permit rotation of the sheave in both directions, and a flexible connection between said valve actuating member and said hose, said flexible connection having an intermediate portion wound around said sheave.

3. In a vehicle washer, a water supply pipe, a delivery pipe rotatably connected

with said water supply pipe, a valve controlling the passage of water from said water supply pipe to said delivery pipe, a flexible hose connected to said delivery pipe, 5 an actuating member for said valve rotatable with said delivery pipe, means tending to hold said actuating member in a position to effect closing of the valve, a sheave rotatably supported on said delivery pipe, 10 means for normally preventing rotation of said sheave in one direction, and a flexible connection between said valve actuating member and said hose, said flexible connection having an intermediate portion wound 15 around said sheave.

4. In a vehicle washer, a water supply pipe, a delivery pipe rotatably connected with said water supply pipe, a valve controlling the passage of water from said 20 water supply pipe to said delivery pipe, a flexible hose connected to said delivery pipe, an actuating member, for said valve rotatable with said delivery pipe, means tending to hold said actuating member in a position to effect closing of the valve, a sheave 25 rotatably supported on said delivery pipe, a ratchet wheel rotatable with said sheave, and a pawl engaging said ratchet wheel to normally prevent rotation of said sheave in one direction, said pawl being movable to 30 a position to permit rotation of the sheave in both directions, and a flexible connection between said valve actuating member and said hose, said flexible connection having 35 an intermediate portion wound around said sheave.

5. In a vehicle washer, a fixed water supply pipe, a delivery pipe rotatably connected to said fixed water supply pipe, a 40 valve in the fixed water supply pipe, a lever

rotatable with the delivery pipe, connections between the valve and lever whereby the valve can be actuated by the lever in any position of the delivery pipe, means 45 tending to hold said lever in a position to effect opening of the valve, a hose connected to the end of said rotatable delivery pipe, a rotatable sheave carried by the delivery pipe, means for normally preventing rotation of said sheave in one direction, and a 50 flexible connection between said lever and the flexible hose, said flexible connection having a portion wound around said sheave.

6. In a vehicle washer, a fixed water supply pipe, a laterally disposed delivery pipe 55 rotatably connected to the fixed supply pipe, a valve in the fixed supply pipe, a lever rotatable with the laterally disposed delivery pipe, connections between the valve and lever whereby the valve can be actuated by the lever in any position of the 60 delivery pipe, means tending to shift said lever to a position to effect closing of the valve, a sheave carried by the laterally disposed delivery pipe, a ratchet wheel rotatable with 65 said sheave, a pawl normally engaging said ratchet wheel to prevent rotation of the shaft in one direction, said pawl being movable out of engagement with the ratchet wheel to permit movement of the sheave in 70 both directions, and a flexible connection between the lever and the hose, said flexible connection having an intermediate portion wound around said sheave.

In testimony whereof I affix my signature 75 in presence of two witnesses.

EDWARD MULLER.

Witnesses:

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PHILIP L. HALLER.