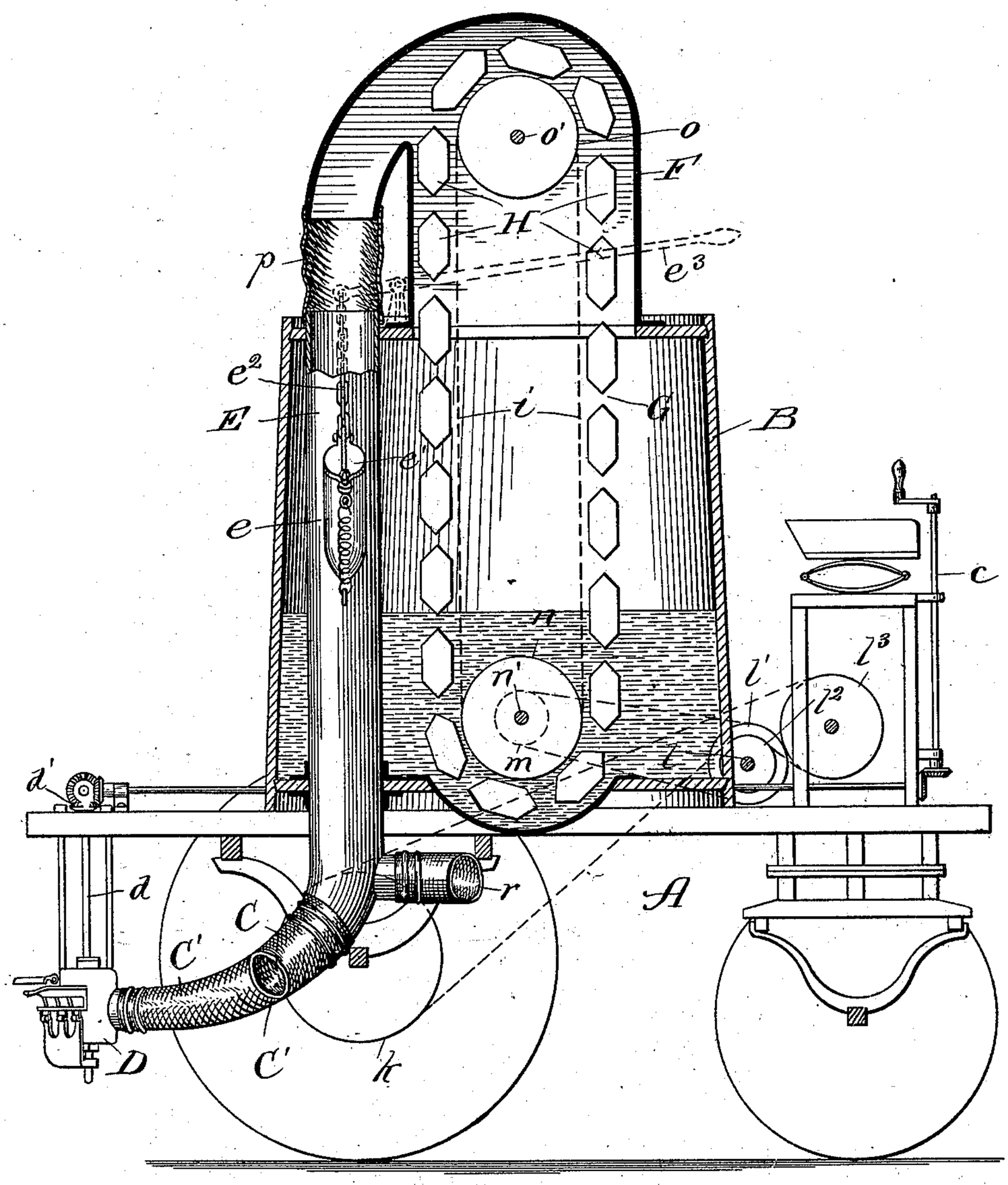
(No Model.) 2 Sheets—Sheet 1.

W. A. KONEMAN.

STREET SPRINKLING WAGON.

No. 560,854. Patented May 26, 1896.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

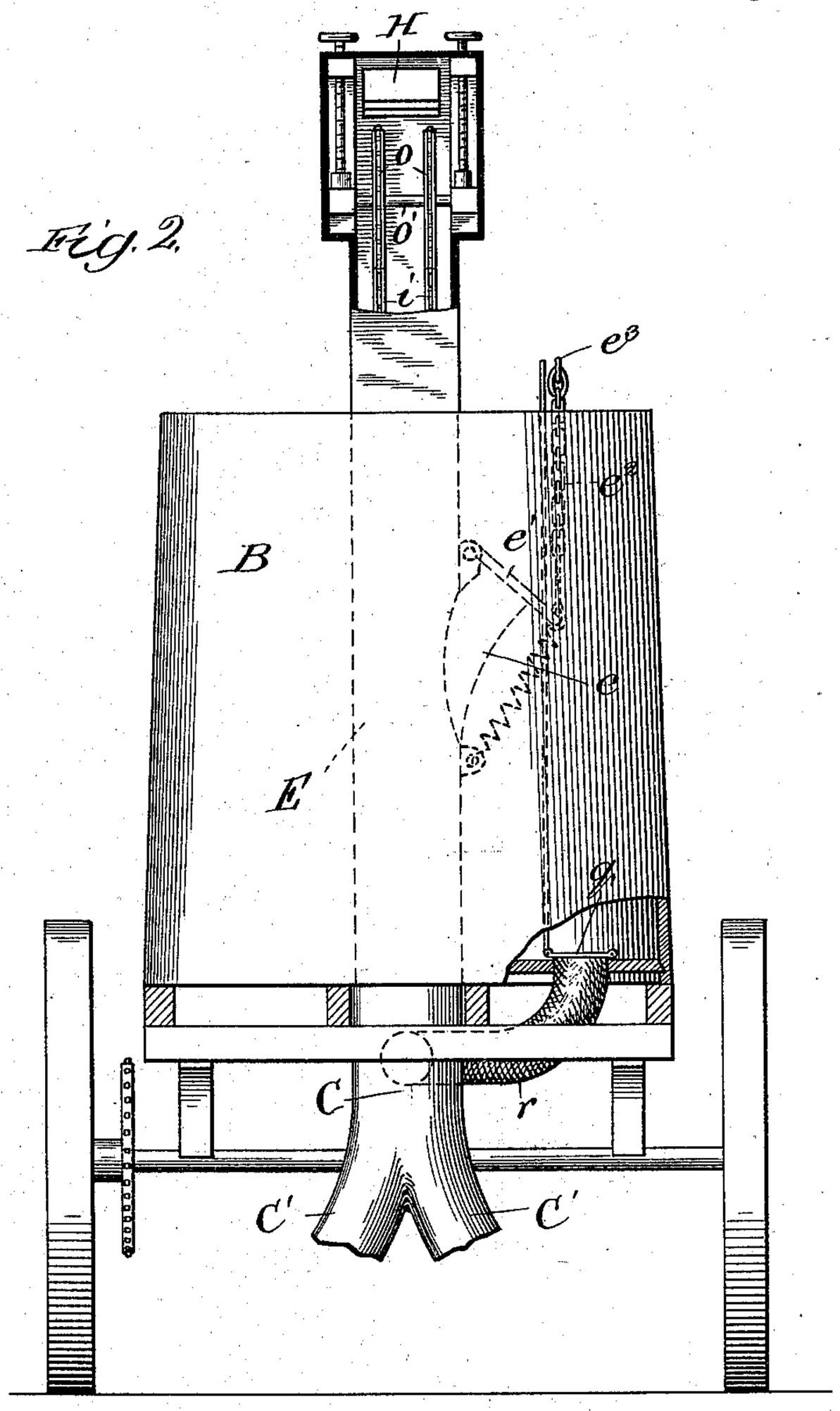
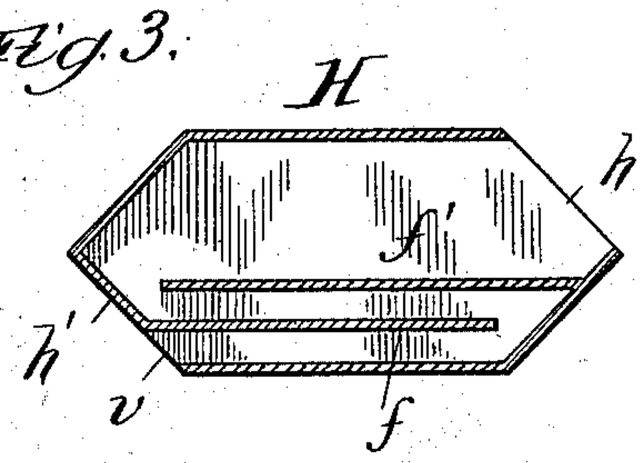


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM A. KONEMAN, OF CHICAGO, ILLINOIS.

STREET-SPRINKLING WAGON.

SPECIFICATION forming part of Letters Patent No. 560,854, dated May 26, 1896.

Application filed December 29, 1893. Renewed October 24, 1895. Serial No. 566,780. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. KONEMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Street-Sprinkling Wagons, of which the following is a specification.

The primary object of my invention is to provide for the maintenance of a uniform head or pressure, irrespective of the lowering by the discharge of the supply in the tank.

According to the common construction of a street-sprinkling wagon the pressure of the discharge from the sprinkler is greatest when the tank is full, and it decreases materially and rapidly as the supply in the tank lowers, with the undesirable consequence that the discharge lacks uniformity in quantity and extent of throw. To overcome this objection, I elevate the contents of the tank into a stand-pipe leading to the sprinkler, whereby the water may be caused to fall from a uniform elevation throughout the lowering of the level of the supply in the tank.

Referring to the accompanying drawings, Figure 1 shows my improved street-sprinkling wagon by a view in sectional side elevation. Fig. 2 is a broken view of the same in rear elevation. Fig. 3 is a view in sectional side elevation showing the construction of an elevator-bucket.

A is the wagon, surmounted by a tank B for holding the supply of water, and which in a well-known construction of sprinkling-cart communicates from its base through a branch trunk *r*, usually of canvas, with the main trunk C extending downward and backward from the center of the rear end of the cart and terminating in laterally outward-extending curved branches C′, carrying at their ends sprinkling-heads D.

One purpose of the particular construction of my improvement presented herein is to adapt it to be applied to sprinkling-wagons already in use without necessarily interfering with their operation according to their old construction or requiring any part of the latter to be reconstructed or impaired, and this is provided for by the described connections, since by raising and lowering the valve *q* in the base of the tank, which covers the inlet to the branch *r*, the supply of water from the tank to the sprinkling means may be controlled.

I refer throughout the description hereinafter contained to the parts C, C′, and D by the general term "sprinkler," as the said parts need involve in themselves no features of novelty, although the construction of the particular sprinkling-head D, selected for the illustration, resembles that forming the subject of my Patent No. 530,534, granted December 11, 1894.

E is a stand-pipe seated over the mouth of the trunk C and extending vertically upward, by preference, inside the tank B. At its upper end, near which the stand-pipe preferably has an inserted canvas section *p*, it communicates with a water-elevating device, one of various forms of which that may be employed for my purpose is that illustrated, the same being a bucket-elevator geared to the running-gear of the wagon and involving, by preference, buckets of especial construction.

F is an upright housing covering the opening in the top of the tank B, on which it is mounted and which opens from its upper end into the upper end of the stand-pipe E. In the upper end of the housing is journaled a shaft *o′*, carrying a pair of sprocket-wheels *o*, and directly below it, in the bottom portion of the tank, is journaled a shaft *n′*, carrying a pair of sprocket-wheels *n*. On the protruding end of the shaft *n′* is a sprocket-wheel *m*, geared with a sprocket-wheel *l′* on one end of a counter-shaft *l*, carrying also a sprocket-wheel l^2, connected with a sprocket-wheel *k* on the rear axle of the wagon, the motion of which thus drives the shaft *m* and operates the elevator G. To give the proper motion to the chain, it passes into engagement only with the upper side of the wheel l^2 and about a forward sprocket-wheel l^3. The elevator is formed with endless chains *i*, passed about the sprocket-wheels *o* and *n* and carrying the series of buckets H. I prefer to provide the bucket in the six-sided form illustrated, with the side *h* entirely open for the discharge, and the side *h′*, diagonally opposite, provided with a comparatively small vent-opening *v*, whence there proceeds a diaphragm *f* across the interior of the bucket nearly to but short of the opposite wall, from which another diaphragm *f′* overlaps the diaphragm *f* and ex-

tends short of the wall containing the opening *v*.

From near the vertical center of the rear portion of the tank B, I connect it by a conduit *e* with the stand-pipe, the end of the conduit which projects into the tank having seated upon it a spring-controlled hinged valve *e'*, normally maintained against its seat, from which it may be raised at will through the medium of a chain e^2, connected with a lever e^3, extended into a position of convenient access to the driver. The conduit *e* affords means, when the valve *e'* is raised, for admitting water directly from the tank into the stand-pipe to afford a water-level in the latter corresponding with that in the tank when at least about half-full to provide accordingly-reduced head of pressure in the stand-pipe under circumstances when, for sprinkling, the less volume of water is required to be discharged. I also show in the drawings means for operating my peculiar sprinkling-heads D, hereinbefore referred to as forming the subject of my aforesaid Letters Patent, and which have vertical rotary shafts *d*, provided at their upper ends with beveled gears *d'*, geared together and operated from the driver's seat by turning a rotary crank-shaft *c*, geared with the beveled gears *d'*.

From the foregoing description of the construction of my improvement, as illustrated, the operation will be understood to be that of causing the motion of the wagon to drive the elevator to carry the water from the tank to and discharge it at the same altitude in the stand-pipe, whereby, notwithstanding the lowering of the level of water in the tank by use the fall thereof is uniform and maintains a uniform head for the sprinkler. The particular form of the bucket H adapts it to fill readily, and the internal diaphragms prevent the escape of a material quantity of the contents of the bucket while being raised vertically, (when the open side *h* is uppermost,) while when in a horizontal position in crossing the sprocket-wheels *o* the smallness of the opening *v* prevents the escape of much water from the bucket before it is brought around to discharge its contents through the open side *h* into the stand-pipe.

What I claim as new, and desire to secure by Letters Patent, is—

In a sprinkling-wagon, the combination with the tank and sprinkler, of a stand-pipe leading to the sprinkler, a conduit connecting the stand-pipe and tank between their respective ends and having a valve, a housing on the upper open end of the tank and leading into the top of the stand-pipe, and a water-elevator in the tank and housing having an endless vertically-traveling series of buckets connected with the running-gear of the wagon to be actuated by its movement, substantially as and for the purpose set forth.

WILLIAM A. KONEMAN.

In presence of—

W. U. WILLIAMS,

J. N. HANSON.