

(No Model.)

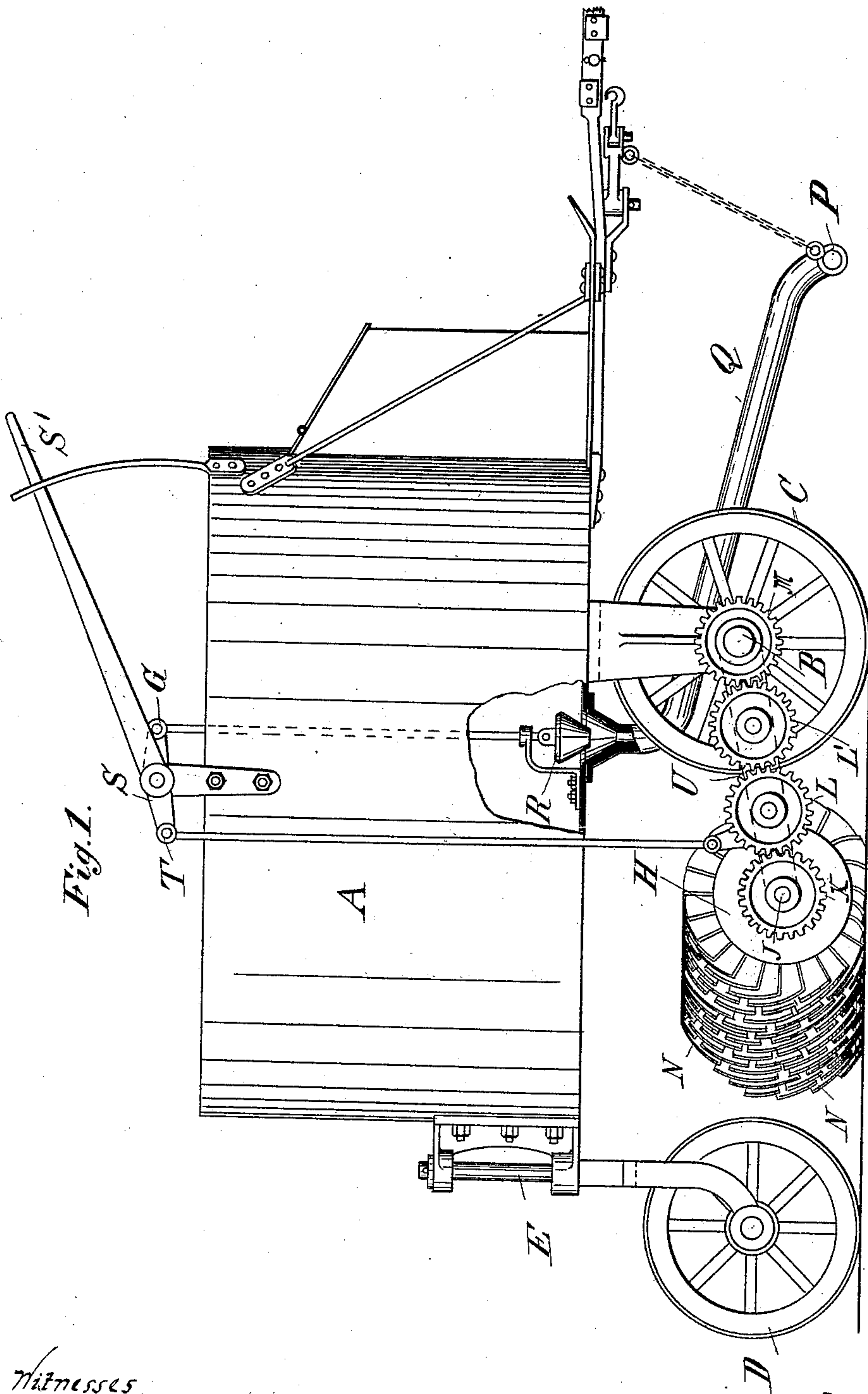
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A. HENTSCHEL.

APPARATUS FOR REMOVING SNOW AND CLEANING ROADWAYS.

No. 410,895.

Patented Sept. 10, 1889.



Witnesses  
William Miller  
Edmund Woff.

Inventor  
Augustin Hentschel  
by Van Gantwoorde Hauth  
his attys

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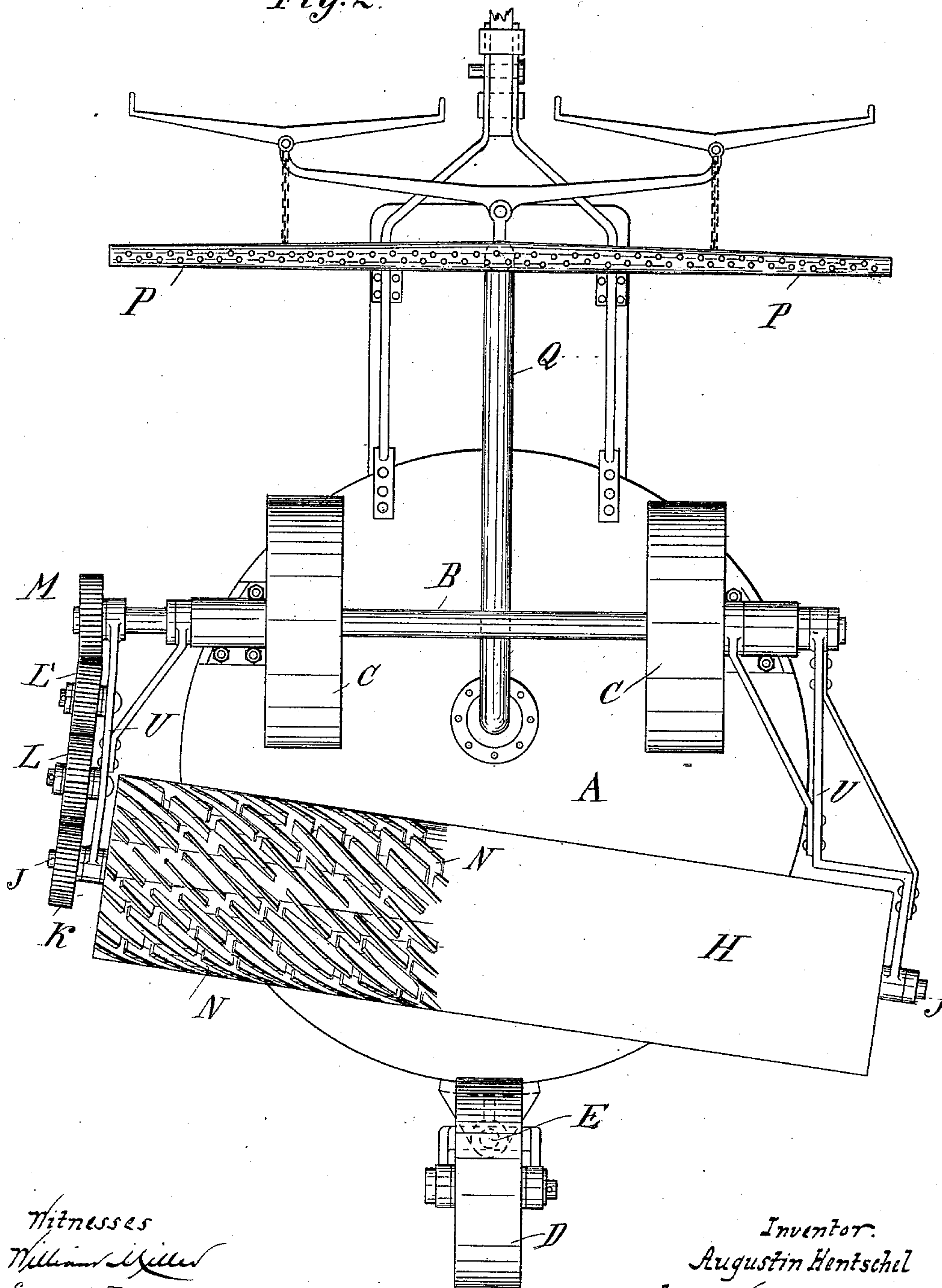
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*Fig. 2.*



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# UNITED STATES PATENT OFFICE.

AUGUSTIN HENTSCHEL, OF BERLIN, GERMANY.

## APPARATUS FOR REMOVING SNOW AND CLEANING ROADWAYS.

SPECIFICATION forming part of Letters Patent No. 410,895, dated September 10, 1889.

Application filed March 14, 1889. Serial No. 303,298. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTIN HENTSCHEL, a subject of the King of Prussia, residing at Berlin, in the Kingdom of Prussia, Germany, have invented new and useful Improvements in Apparatus for Removing Snow and Cleansing Roadways, of which the following is a specification.

This invention relates to machines for cleaning and washing roadways, and has for its object the expeditious and thorough removal of snow and dirt from their surfaces by the combined action of jets of water and a rubbing-cylinder; and the object of my invention I accomplish by the combination and arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of the machine; Fig. 2, an inverted plan of the same.

The same reference-marks indicate the same parts in both figures.

A is a tank containing water, supported upon an axle B at the front, having wheels C fastened thereon and turning with it.

D is the rear wheel, which is attached by an upright pivot E to the rear portion of the tank, so as to facilitate the turning of the apparatus upon the road.

H is a cylinder placed beneath the tank A and mounted upon a shaft J, wherewith it turns, the direction of the axis being diagonal to the line of progress upon the roadway, upon which shaft J is placed a toothed wheel K, which, engaging other toothed wheels L L', receives motion from the toothed wheel M on the shaft B, so as to cause the rotation of the cylinder H when the machine travels upon the roadway. The cylinder H is provided with helical lines of projecting vulcanized rubber strips N, which strips N, wiping or rubbing on the roadway, cleanse the surface thereof and move the dirt detached from the roadway to the side of the road, partly by reason of the oblique direction of the cylinder H to the line of travel of the apparatus, and also in consequence of the helical direction of the series of india-rubber strips upon the cylinders. A perforated pipe P at the front of the apparatus, connected by a pipe Q with the water-tank, discharges a line of jets of

water upon the roadway in advance of the rubbing-cylinders. A valve R serves to close the entrance to the water-pipe Q from the tank to the perforated pipe P. The valve R, in control of an attendant by means of a handle-lever S', is operated by a three-armed rock-shaft S, two of the arms of which shaft connect, respectively, with the valve R and the frame U by links G and T, said frame U being pivotally attached to the axle B, and in which frame the shaft of the rubbing-cylinder H rotates, so that when the lever S' is depressed at the front end the rubbing-cylinder is raised from the roadway and the supply of water to the perforated pipe P is stopped, and the reverse effects are produced when it is raised.

The apparatus may be propelled by horses attached to the front portion, or by any other means of draft.

By using a series of these machines, one traveling in advance and to one side of the path of the next, wide roadways may be cleaned by washing and scrubbing and brushing the dirt to the side of the street, the more fluid portion passing from the gutters to the sewers, and the thicker portion remaining at the side of the street in a line, whence it is easily collected and removed.

Having described this invention and the operation thereof, what I claim is—

1. A machine for washing and scrubbing pavements, consisting of a wheeled axle, a water-tank having an opening and closing valve in its bottom for the discharge of water, a water-pipe leading from the valved part of the tank toward the front of the machine, and provided at its forward extremity with a jet-pipe, a vertically-swinging frame pivotally connected with the wheeled axle, a cylinder having helical rubbers and journaled in said frame, gearing for revolving the cylinder from the wheeled axle, and means for raising the cylinder-frame and opening and closing the tank-valve, substantially as described.

2. The combination of a water-tank with a vehicle for transporting the same, and for imparting motion from the wheels thereof to an obliquely-arranged helically-clothed cylinder, with a jet-tube arranged to deliver water in advance of the cylinder, and a valve

regulating the flow of water of such jet-tubes, controlled by a three-armed rock-shaft, one arm of which closes the valve leading to the jet-tube simultaneously with the other arm  
5 lifting a frame supporting the cylinder, substantially as and for the purposes set forth.

In testimony whereof I have signed my name

to this specification in the presence of two subscribing witnesses.

AUGUSTIN HENTSCHEL.

Witnesses:

B. ROI,

GUSTAV HÜLSMANN.