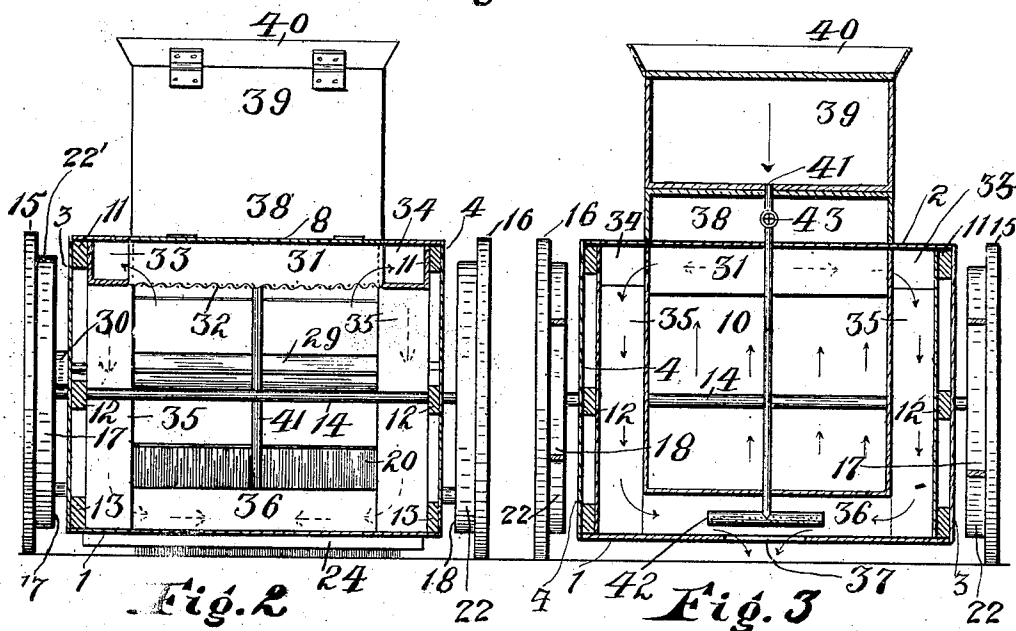
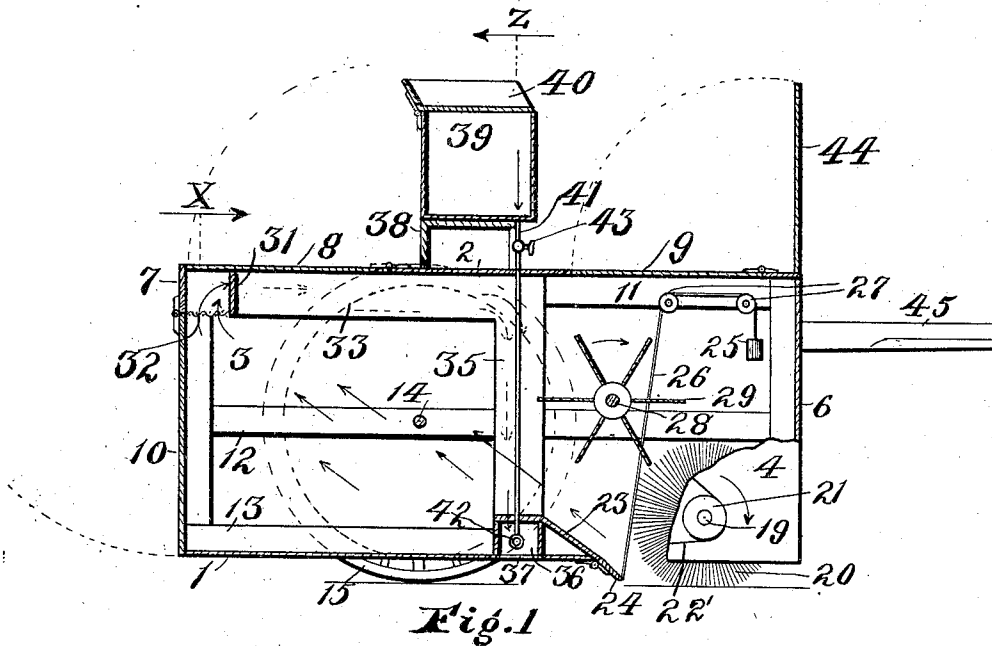


J. BARINGER.
STREET SWEEPER.
APPLICATION FILED APR. 25, 1912.

1,056,769.

Patented Mar. 25, 1913.



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UNITED STATES PATENT OFFICE.

JOSEPH BARINGER, OF AKRON, OHIO.

STREET-SWEEPER.

1,056,769.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed April 25, 1912. Serial No. 693,225.

To all whom it may concern:

Be it known that J. JOSEPH BARINGER, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Street-Sweepers, of which the following is a specification.

This invention relates to street sweepers and the object thereof is to provide an improved device for sweeping streets which embodies a vehicle carrying a receptacle into which the dirt and dust is driven by the sweeper and the air is permitted to escape but before its escape is subjected to a spray of water to thereby prevent the finer particles of dust from flying and also to sprinkle the street effectually in the rear of the sweeper, thus combining a sweeper and sprinkler in one instrumentality.

A further object is to provide a device of the character named which will be strong, durable, cheap easy to manipulate, and simple in construction.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claim hereunto appended.

In the drawings in which similar reference numerals indicate like parts in the different figures, Figure 1, is a longitudinal central section of a street sweeper embodying this invention; Fig. 2, is a transverse sectional view of a sweeper embodying this invention on line X of Fig. 1; and, Fig. 3, is a view similar to Fig. 2 in section on line Z of Fig. 1.

Referring to the drawings in detail the device embodies a hollow box-like body comprising a lower wall 1, an upper wall 2, side walls 3 and 4, and front and end walls 6 and 7. The upper wall 2 is provided with two doors 8 and 9 to permit access to the interior of the body member, and the rear wall 7 is also provided with a door 10 for a similar purpose. The side walls are preferably strengthened by longitudinally-extending members 11, 12 and 13. Extending transversely through the body of the device

is an axle 14 on which are mounted ground wheels 15 and 16 which while serving to support the device and permit its transportation over the ground also constitute means for rotating the machinery to be hereinafter described. The wheels 15 and 16 are provided with lateral annular flanges 17 and 18, respectively.

Extending transversely of the lower forward portion of the device is a rotatable shaft 19 on which and between the walls 3 and 4 is a cylindrical sweeping brush 20. Mounted on the axle 19 outside of the wall 4 is a pulley 21 adapted to receive a belt 22 which extends around the annular flange 18 so that as the vehicle is drawn forward the motion of the wheel is communicated through the belt 22 to the brush 20 causing it to sweep the ground in advance of the ground-wheels. The lower wall 1 of the device is cut away below the brush 20 to permit the latter to engage the ground and rearwardly of the brush 20 is a transversely-extending inclined partition 23 constituting a deflector over which the dirt swept up by the brush 20 is driven. Secured to the lower forward end of the partition 23 is a hinged extension 24 adapted to be held in a fixed position by a counterweight 25 connected with the extension 24 by means of a flexible member 26 passing over pulleys 27. Although only one counterweight is shown it is obvious that there may be one on each of the side walls 3 and 4 of the device.

Extending between the side walls 3 and 4 above and slightly in the rear of the shaft 19 is a revoluble shaft 28 bearing between the walls 3 and 4 a fan 29 and on the outside of the wall 3 a pulley 30 which receives a belt 22' extending from the annular flange 17 for the purpose of rotating the fan when the device is moved. The function of the fan is to supplement the action of the brush in driving the dirt and dust-laden air rearwardly over the inclined partition 23.

Extending between the walls 3 and 4 near the upper rear portion of the device is a vertical partition 31 and between the lower edge of the partition 31 and the rear wall 7 is a horizontal partition 32 of a foraminous and reticulated material to constitute a screen. Extending along the upper inner faces of the walls 3 and 4 are a pair of air passages 33 and 34. The rear ends of these air passages 33 communicate with the trans-

verse air passage bounded by the partitions 31 and 32, and at their forward ends communicate with vertical air passages 35 which in turn communicate at their lower ends with a transverse air passage 36 extending between the walls 3 and 4 immediately in the rear of the inclined partition 23. Immediately below the air passage 36 the lower wall 1 is provided with a central discharge opening 37.

As the heavier particles of dirt are thrown upwardly and rearwardly by the brush 20 they fall onto the lower wall 1 of the device in the rear of the transverse air passage 36 and the dust-laden air is driven rearwardly through the screen 32 which partially separates the dust from the air, after which the dust laden air passes through the passages 33 and 34 downwardly through the air passage 35 to the discharge-opening 37 in the air passage 36.

In order to sprinkle the street in the rear of the brush and also to prevent the flying of the finer particles of dust carried by the air through the air-passages, I provide on the upper wall 2 a supporting frame 38 on which is mounted a tank 39 for water; the closure member 40 of which constitutes a seat for a driver. From the tank 39 there extends downwardly a pipe 41 terminating in a spray discharge-tip 42 provided with minute openings for the escape of water and positioned immediately above the discharge opening 37 so that as the dust-laden air passes out it is to a certain extent washed, and the water mingles with the dust carried with the air, tending to drive it onto the ground. The pipe 41 is usually provided

with a valve 43. In use I generally provide the device with a dashboard 44 and thills or a wagon tongue 45 to which a horse or a team of horses may be hitched for drawing it over the ground.

I claim.—

In a street-sweeper, the combination of a sweeping brush, a receptacle in delivering proximity thereto, a transversely-extending partition at the top and spaced from the rear end of said receptacle, a screen extending horizontally of the receptacle from the rear wall thereof to the lower edge of said partition, air conduits positioned along the sides of the receptacle and extending from the space above said screen and in the rear of said partition, vertically-disposed air conduits positioned at the sides of the receptacle and communicating at their upper ends with the forward ends of said side conduits, and a laterally-extending conduit disposed at the lower portion of said receptacle and communicating with the lower ends of said vertical conduits, the said laterally-extending conduit closed from communication with the receptacle and having the lower wall thereof provided with an opening for discharging the air freed from the dust laden particles, and means for supporting said sweeper.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH BARINGER.

Witnesses:

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