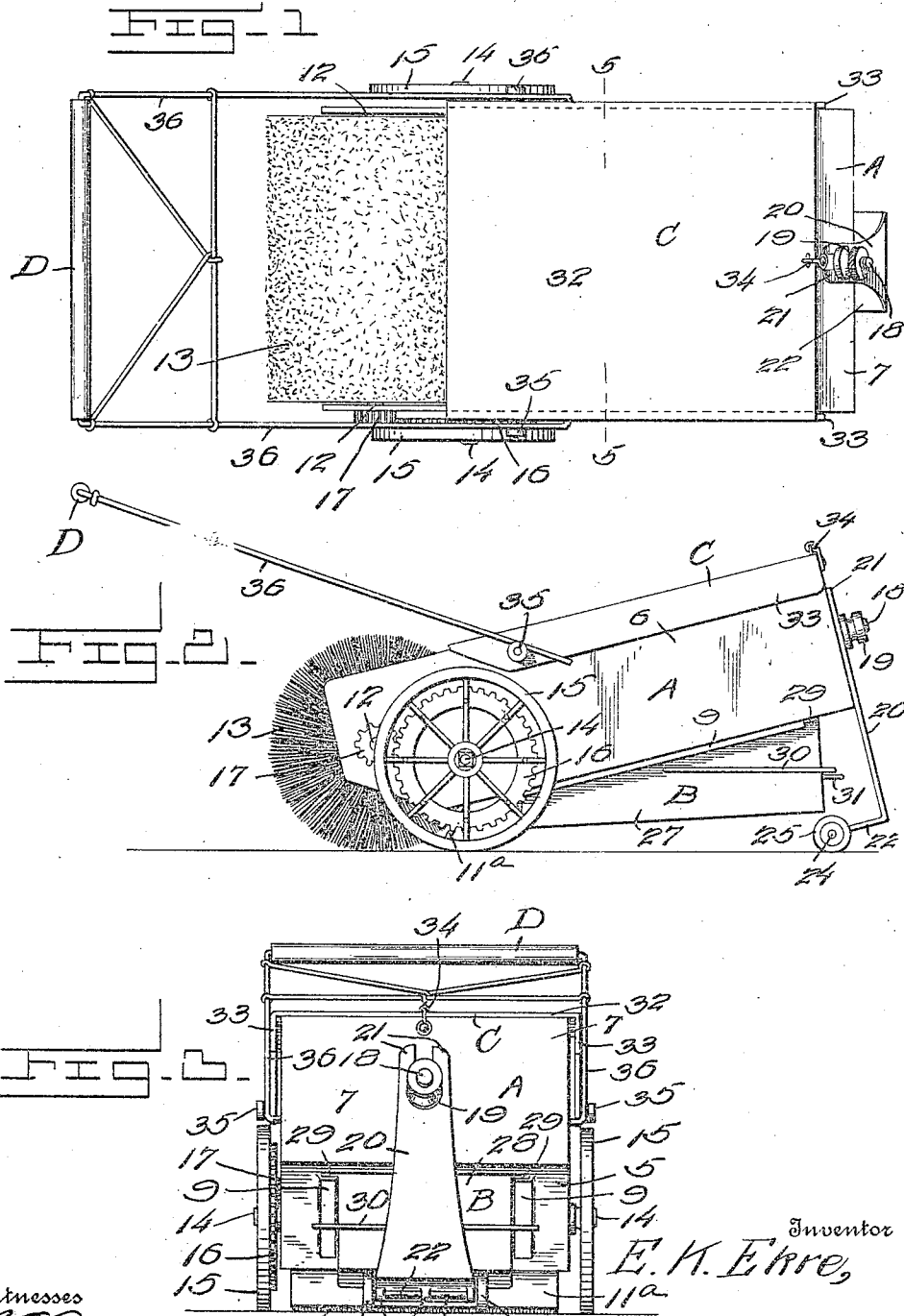


E. K. EKRE.
SWEEPING MACHINE.
APPLICATION FILED MAR. 26, 1912.

1,057,949.

Patented Apr. 1, 1913.

2 SHEETS-SHEET 1.



Witnesses
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Inventor
E. K. EKRE,

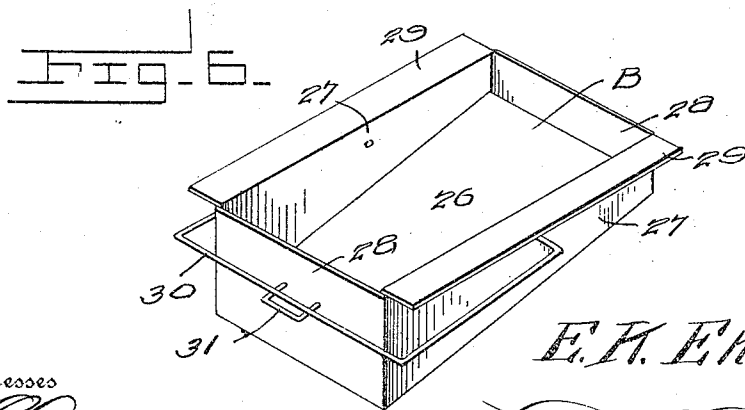
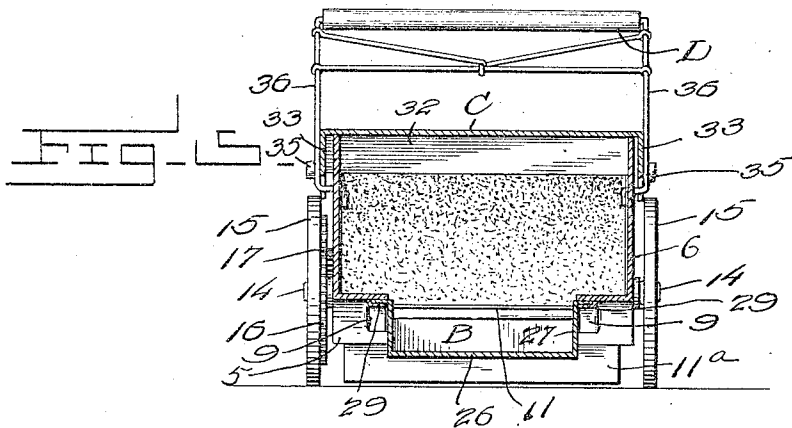
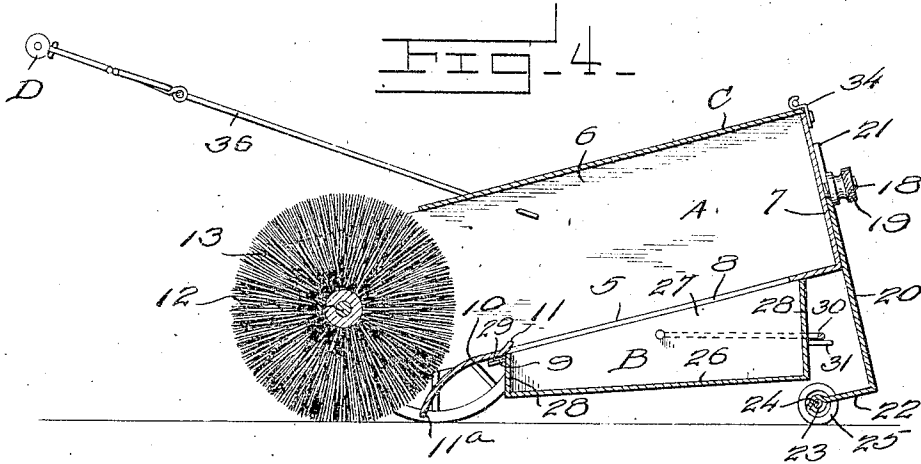
Charles Chandler
Attorneys

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2 SHEETS-SHEET 2.



Witnesses
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EDWIN K. EHRE, OF WALCOTT, NORTH DAKOTA.

SWEEPING-MACHINE.

1,057,949.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed March 23, 1912. Serial No. 336,353.

To all whom it may concern:

Be it known that I, EDWIN K. EHRE, a citizen of the United States, residing at Walcott, in the county of Richland, State of North Dakota, have invented certain new and useful Improvements in Sweeping-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in sweeping machines.

The principal object of the invention is to provide a hand operated sweeper in which a tray is associated with the dirt receptacle in a novel manner.

Another object of the invention is to provide a machine of the character described which is supported at its rear end by tractor wheels and at its front end by wheels which are attached to the receptacle by a novel means, said means also constituting a stop to prevent accidental displacement of the tray.

A further object of the invention is to provide a machine of the type described in which the dirt receptacle is provided with a cover and a pivoted handle, the latter in one position cooperating with the former to hold the same in its closed position.

A still further object of the invention is to provide a hand operated sweeping machine of the character described, which is composed of a minimum number of parts, is therefore simple in construction, and is cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings: Figure 1 is a top plan view of a sweeping machine constructed in accordance with my invention. Fig. 2 is a side elevation thereof, Fig. 3 is a front end view, Fig. 4 is a vertical longitudinal sectional view through the same, Fig. 5 is a vertical transverse sectional view taken on

the line 5—5 of Fig. 1, looking toward the rear end of the machine, and Fig. 6 is a perspective view of the tray.

Like reference numerals designate corresponding parts in all the figures of the drawings.

Referring to the drawings, the invention comprises a dirt receptacle which is designated as a whole by the reference letter A. This receptacle is preferably formed of sheet metal and comprises a bottom 3, side walls 6—6 and a front end wall 7. A rectangular opening 8 is formed in the bottom 3, and secured to the underside of the bottom and contiguous to the side edges of said opening are longitudinally disposed guide flanges 9—9. In rear of the opening 8 is a connecting strip 10, and the forward portion 11 of this strip is bent upwardly and the rear portion is bent downwardly, as indicated at 11^a, to form an apron. Journaled in suitable openings formed in the rear ends of the walls 6 and above the apron thus formed is a shaft 12, and on this shaft is fixedly mounted a rotary brush 13 which cooperates with the apron to brush the dirt into the receptacle. Outwardly projecting from the rear ends of the side walls 6 of the receptacle are stub-shafts 14—14, and loosely mounted on these shafts are tractor wheels 15—15. One of these wheels carries a pinion 16 which meshes with a small pinion 17 fixedly mounted on the brush shaft 12. It will thus be observed that as the machine is moved forward the brush 13 will be rotated in the proper direction to force the dirt into the receptacle.

In order to support the front end of the receptacle, the front wall 7 is centrally provided with a forwardly extending binding post 18, and associated with this post is a knurled nut 19. A standard 20 which is preferably formed of sheet metal has its upper end longitudinally slotted to form resultant forks 21—21 adapted to be disposed on opposite sides of the post 18 and to be clamped between the front wall 7 of the receptacle and the knurled nut 19. The lower end of this standard is inwardly bent, as at 22, and is formed with a transversely disposed bearing 23 in which an axle 24 is journaled. Ground wheels 25—25 are mounted upon this axle on either side of the standard. It will thus be observed that the standard 20 is capable of being readily attached to or detached from the front end

of the receptacle and is also capable of being adjusted so as to dispose the front end of the receptacle at different elevations.

My invention further comprises a tray, 5 which is designated as a whole by the reference letter B. This tray is preferably formed of sheet metal, and comprises a bottom 26, rearwardly diverging side walls 27—27, end walls 28 and longitudinal attaching flanges 29—29, the latter engaging 10 upon the flanges 9—9 of the receptacle so as to support said tray directly below the opening 8. It will be observed in this connection that the standard which is disposed 15 directly in advance of the tray constitutes a stop for the latter, and thereby prevents any accidental forward movement and consequent displacement of said tray. When it is 20 desired to remove the tray, the standard 20 is removed as will be readily understood, and the tray is drawn forwardly by means of the bail 30, which is pivotally connected at its ends to the sides of the tray, the bight 25 of the bail normally resting upon a handle 31 which projects forwardly of the forward end of the tray.

My invention further comprises a closure for the receptacle, which is designated by the reference letter C, said closure being 30 preferably formed of sheet metal and including a body portion 32 and depending longitudinal flanges 33—33 which normally project over the side walls 6—6 of the receptacle. The forward portion of this closure 35 is detachably secured to the front wall 7 of the receptacle by any detachable fastening means, such as is indicated as a whole by the reference numeral 34. Projecting laterally from the rear ends of the flanges 33 40 are headed pins 35—35.

My invention further comprises a handle which is designated as a whole by the reference letter D. This handle includes spaced 45 side arms 36—36 which have pivotal connection through suitable openings formed in the side walls 6 of the receptacle, said openings being disposed in advance of the

headed pins 35. As a result of this construction, the arms 36 of the handle B will normally rest upon headed pins 35, and consequently when pressure is applied to said 50 handle, the closure will be locked against any accidental displacement.

From the foregoing, it will be observed that as the machine is pushed forwardly 55 the brush is rotated in the direction as above described to brush the dirt into the receptacle and consequently into the tray B. The operator can when desired swing the handle forwardly so as to raise the closure to ascertain whether or not the tray is filled. 60 When the tray becomes filled the standard which carries the ground wheels may be readily removed as above described and the tray withdrawn and the contents thrown out. 65

What is claimed is:

1. In a sweeping machine, a dirt receptacle including a bottom having an opening formed therein and side walls, one end of the bottom forming a connecting strip between the walls, the end of said strip opposite the opening being bent downwardly to form an apron, and a removable tray supported below the opening of the receptacle. 70

2. In a sweeping machine, a dirt receptacle including a bottom, side walls and a front end wall, supporting wheels connected to the side walls of the receptacle, the bottom being formed with an opening, a brush supported by the walls and operatively connected to the wheels, a removable tray slidably supported for forward movement below the opening of the bottom, a standard detachably connected at its upper end to the front wall of the receptacle and in advance of the tray, said standard forming a stop for said tray, and a ground wheel carried by the lower end of the standard. 75 80 85

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

EDWIN K. EKRE.

Witnesses:

N. E. MORGAN,
ELLEN STACEY.