C. J. BELLAR.

CEMENT SPREADER.

APPLICATION FILED DEC. 13, 1920.

1,419,537. Patented June 13, 1922.

2 SHEETS—SHEET 1.

FIG. 1

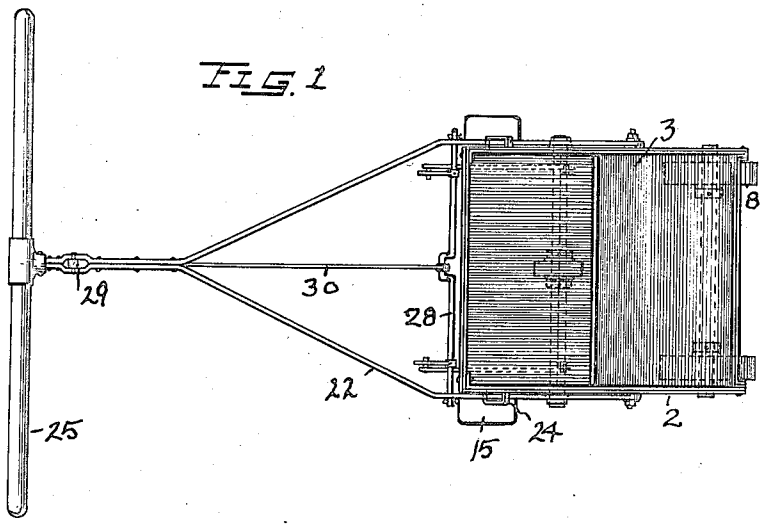


FIG. 2

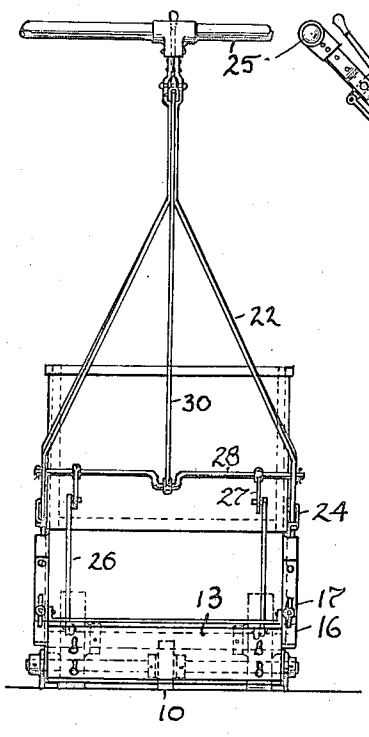


FIG. 3

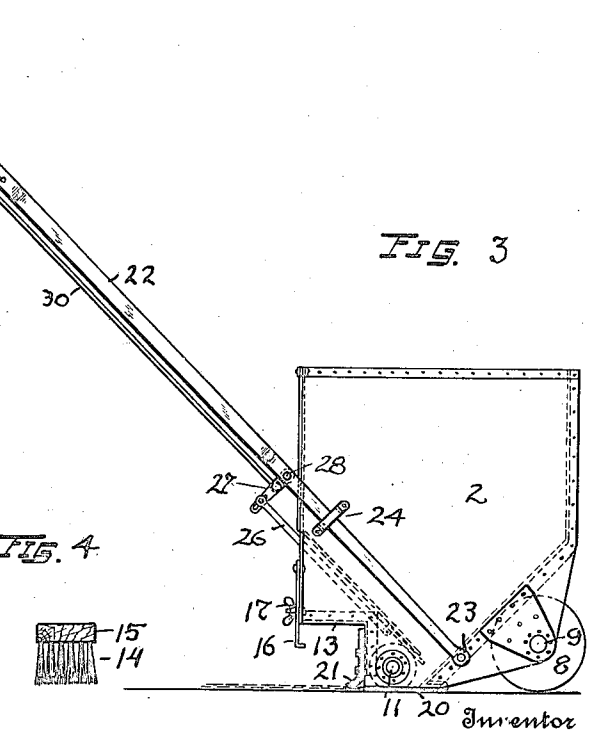


FIG. 4

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2 SHEETS—SHEET 2.

FIG. 5

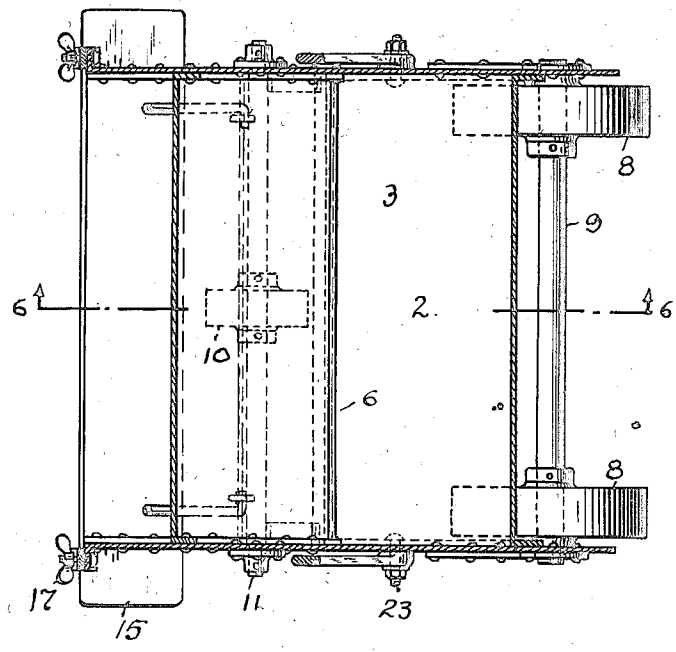
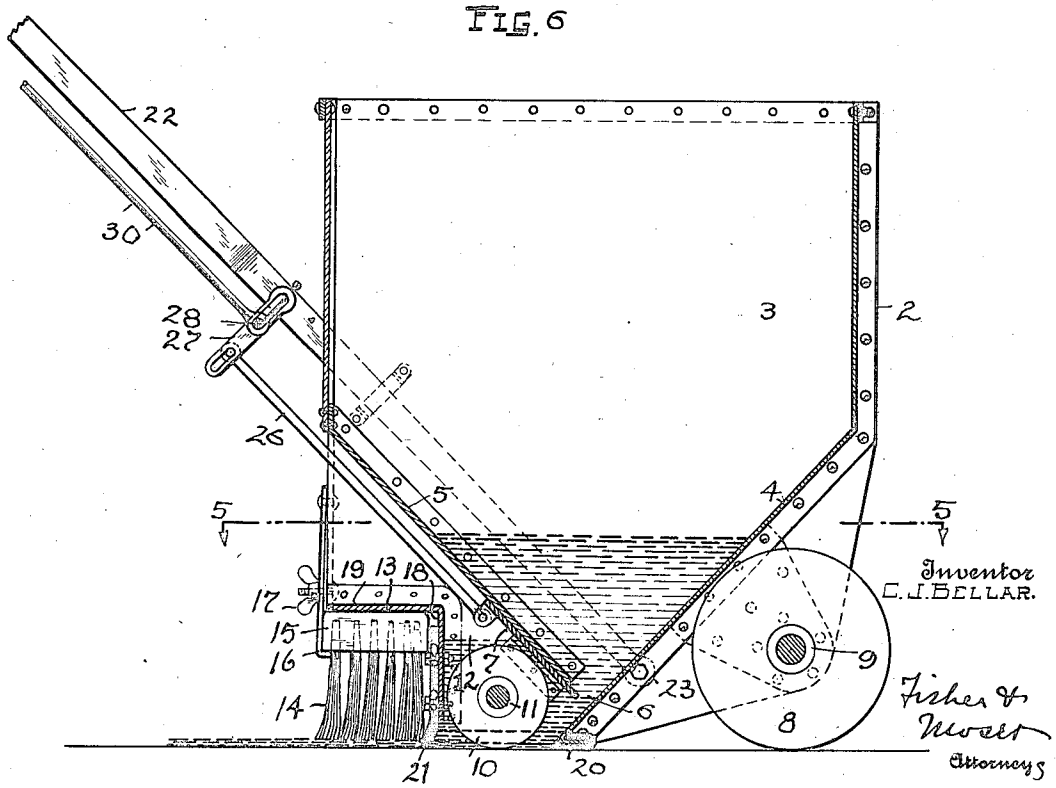


FIG. 6



UNITED STATES PATENT OFFICE.

CHARLES J. BELLAR, OF CLEVELAND, OHIO, ASSIGNOR TO THE CUYAHOGA PARTS COMPANY, OF CLEVELAND, OHIO, A CORPORATION.

CEMENT SPREADER.

1,419,537. Specification of Letters Patent. Patented June 13, 1922.

Application filed December 13, 1920. Serial No. 430,189.

To all whom it may concern:

Be it known that I, CHARLES J. BELLAR, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in a Cement Spreader, of which the following is a specification.

In general, my object is to provide a vehicular device adapted to deposit and spread a cementitious or viscous material uniformly and evenly over a flat surface, and the invention resides in the particular construction and arrangement of parts substantially as shown and described and claimed herein.

The contrivance or machine is especially useful in applying and spreading a thin layer of cement or other plastic compound upon the roof or floor of a building, the material being deposited by gravity flow and wiped smooth and to a uniform thickness by a flexible apron and a flat brush stationed opposite a delivery or overflow chamber which is open to the sight of the operator and in valved communication with a main supply chamber.

In the accompanying drawing, Fig. 1 is a plan or top view on a reduced scale, of my improved machine or contrivance, and Figs. 2 and 3 are end and side elevations, respectively. Fig. 4 is an end view of the brush which is adapted to be detachably affixed within the bottom corner of the compartmented body, and this brush has been omitted from Figs. 2 and 3 to more clearly disclose the form of said body and the parts thereon. Fig. 5 is an enlarged sectional view on a line corresponding to horizontal line 5—5, Fig. 6, and Fig. 6 is a vertical section on a line corresponding to 6—6, Fig. 5, showing the brush in end elevation and clamped in working position within the angualr corner recess at the bottom side of the body.

The invention comprises a square or rectangular body 2 having side and bottom walls formed of sheet metal plates riveted or otherwise secured together to provide a main supply chamber 3 having converging or sloping bottom walls 4 and 5, respectively, which are spaced apart at their lower ends to provide an elongated outlet passage 6. A sliding plate or valve 7 is mounted upon bottom wall 5 to open and close passage 6 above wall 4 which extends downwardly into close relation with the floor or surface upon which the body is supported by two large wheels 8 on shaft 9 at the front side of the body and by a third smaller wheel 10 loosely mounted midway of a second shaft 11 extending transversely through an overflow and delivery compartment or well 12 adjacent supply passage 6. The side walls of body 2 are of irregular outline, especially at their front and bottom borders and the rear bottom corner of the side walls are notched or cut away to provide an angular recess or opening 13 within which a stiff bristled brush 14 having a wooden back 15 is adapted to be inserted and confined, using a pair of hooks or clamping straps 16 and thumb nuts 17 to detachably secure the brush rigidly in place. Compartment 12 is closed at its rear side by a flat vertical wall 18, and the upper side of the corner recess 13 is covered or closed by a horizontal wall or plate 19 to support and back up the solid body 15 of the brush, which is preferably long enough to project some distance beyond either side wall or body 2 when the said brush is secured in place therein. A sealing strip 20 of leather or fabric is affixed to the bottom edges of the side walls and the flanged bottom wall 4 at the border edges of the open bottom of compartment 12 to prevent the plastic material from flowing laterally and toward the front, but the rear side of compartment 12 is open below the bottom edge of vertical wall 18 to permit the material to escape rearwardly. However, a flat flexible apron or wiping member 21 of leather or other suitable material is adjustably fastened on the front face of wall 18 to restrict the outflow of the material rearwardly from compartment 12 to brush 14 which functions to rub and spread the material evenly the full width of the discharge opening. The brush also coacts with wiper 20 to confine the material, although when the machine is in motion the wiper 21 is adapted to flex at its lower free edge to permit the material to escape to the brush in sufficient quantities and without interruption so that a layer of definite thickness will be applied to the floor or roof. The feed or flow of the material is regulated by slide valve 7 and the speed of travel of the machine, and in order that the operator may be constantly apprised of the amount of liquid in compartment 12, the upper rear

end of said compartment opposite sloping bottom 5 is left open in his line of vision which is substantially parallel with sloping bottom 5 and with forked handle 22 which projects rearwardly and upwardly at an angle of about 45° from its pivots 23 on body 2. Keepers 24 on the sides of body 2 confine and limit the movement of handle 22, and the hand or grip members 25 transversely at the upper end of the handle are purposely made of ample length to permit the operator to push and guide the machine while walking at one side of the strip or path of material which is being spread while the machine is in motion.

Slide valve 7 is operated by a pair of links 26 connected to arms 27 on a crank rod 28 which is carried by handle 22, together with a pivoted lever 29 and a connecting rod 30. However, the construction and arrangement of these parts may be variously modified without departing materially from the actual invention involved hereinafter more particularly pointed out in the claims.

What I claim is:

1. A spreading machine, comprising a wheeled receptacle having a delivery well at its bottom and an angular recess opposite said well, in combination with a wiping brush removably confined within said recess.

2. A spreading machine, having an angular recess within its rear and bottom sides and provided with a bottom opening adjacent said recess, in combination with a brush removably confined within said recess.

3. A spreading machine, comprising a receptacle having a converging bottom with a discharge passage and provided with a well open to said passage and open at its top and bottom, wheels at the front side of said receptacle and a wheel within the open bottom of said well, a brush affixed to said receptacle at the rear side of said well, and means adapted to propel and guide said receptacle.

4. A spreading machine, comprising a wheeled body having a main supply chamber and a delivery well at the bottom of said chamber, a slide valve between said chamber and well, a flat bottomed brush detachably affixed to said receptacle at the rear side of said well, a handle secured to said receptacle, and means mounted upon said handle in operating connection with said valve.

5. A machine adapted to deposit and spread cement and viscous material comprising a wheeled receptacle having a bottom with front and rear converging sides and a delivery well open thereto, a valve adapted to control the flow of material from said receptacle to said well, a flexible wiping member and a brush successively positioned behind the outlet from said well.

6. A spreading machine, comprising a receptacle having a delivery well at its bottom and means adapted to control the flow of material from said receptacle to said well, a wiping brush detachably affixed adjacent the outlet from said well and a separate wiping member intervening said outlet and said brush.

7. A spreading machine, comprising a wheeled body having a main supply chamber and a smaller secondary distributing chamber at the bottom thereof with a restricted communicating passage therebetween, and wiping means behind the outlet from said secondary chamber.

8. A spreading machine comprising a main supply chamber and a distributing well open thereto and also open at its bottom and top, and a slide valve adapted to regulate the flow of material from said supply chamber to said well.

9. A spreading machine comprising a receptacle having supporting wheels and a separate distributing compartment at its bottom, a wiping brush and means adapted to clamp the brush at the rear side of said compartment.

10. A spreading machine comprising a receptacle having a distributing compartment at its bottom and wheels at its front within said compartment adapted to support said receptacle in a rolling movement over a floor.

Signed at Cleveland, in the county of Cuyahoga, and State of Ohio, this 4th day of November, 1920.

CHARLES J. BELLAR.