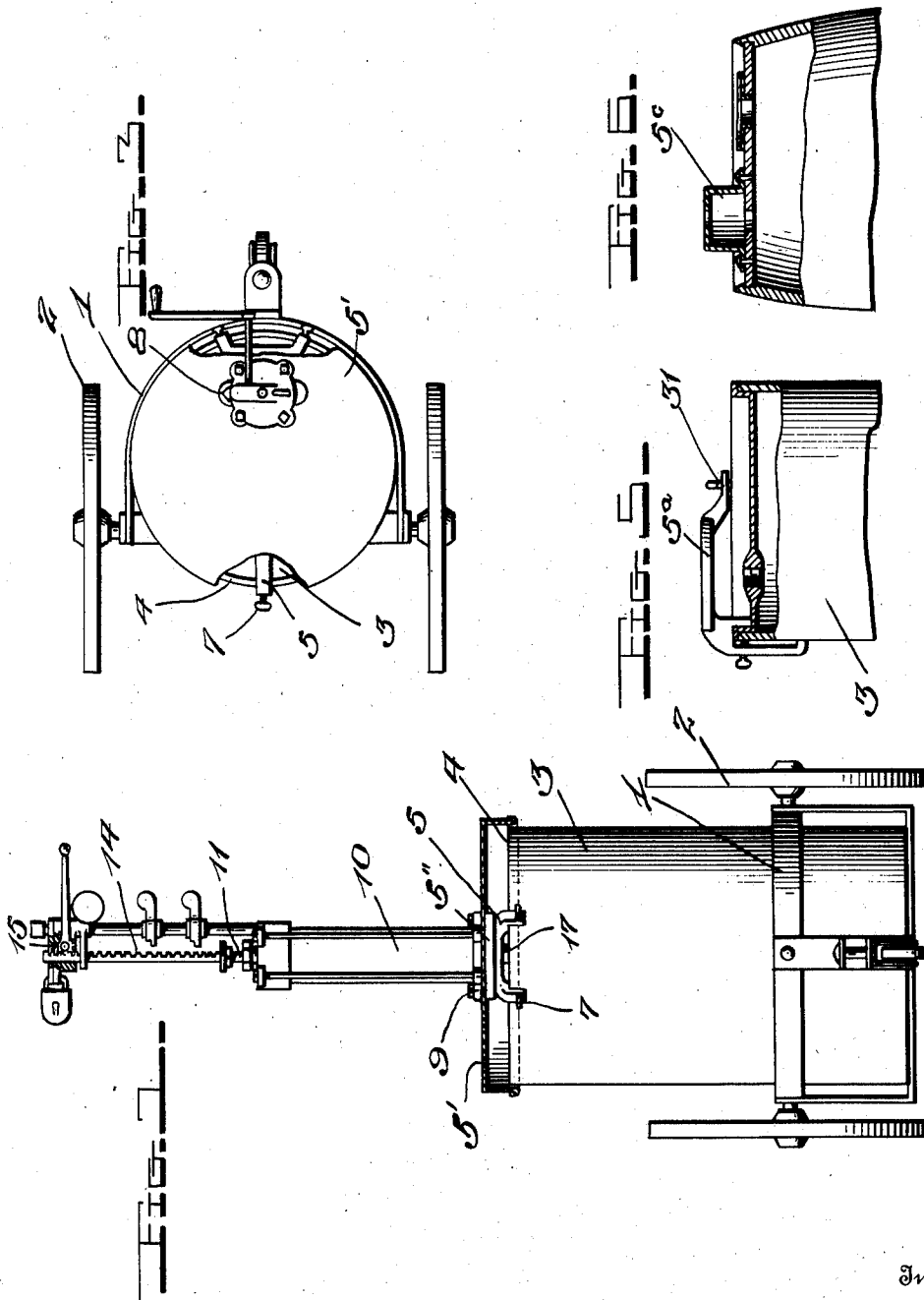


C. L. HEDENBERG.
PUMPING DEVICE.
APPLICATION FILED APR. 12, 1912.

1,043,763.

Patented Nov. 5, 1912.

2 SHEETS-SHEET 1.



Inventor

C. L. Hedenberg

Witnesses

Chas. R. Griesbauer.
A. B. Norton

By

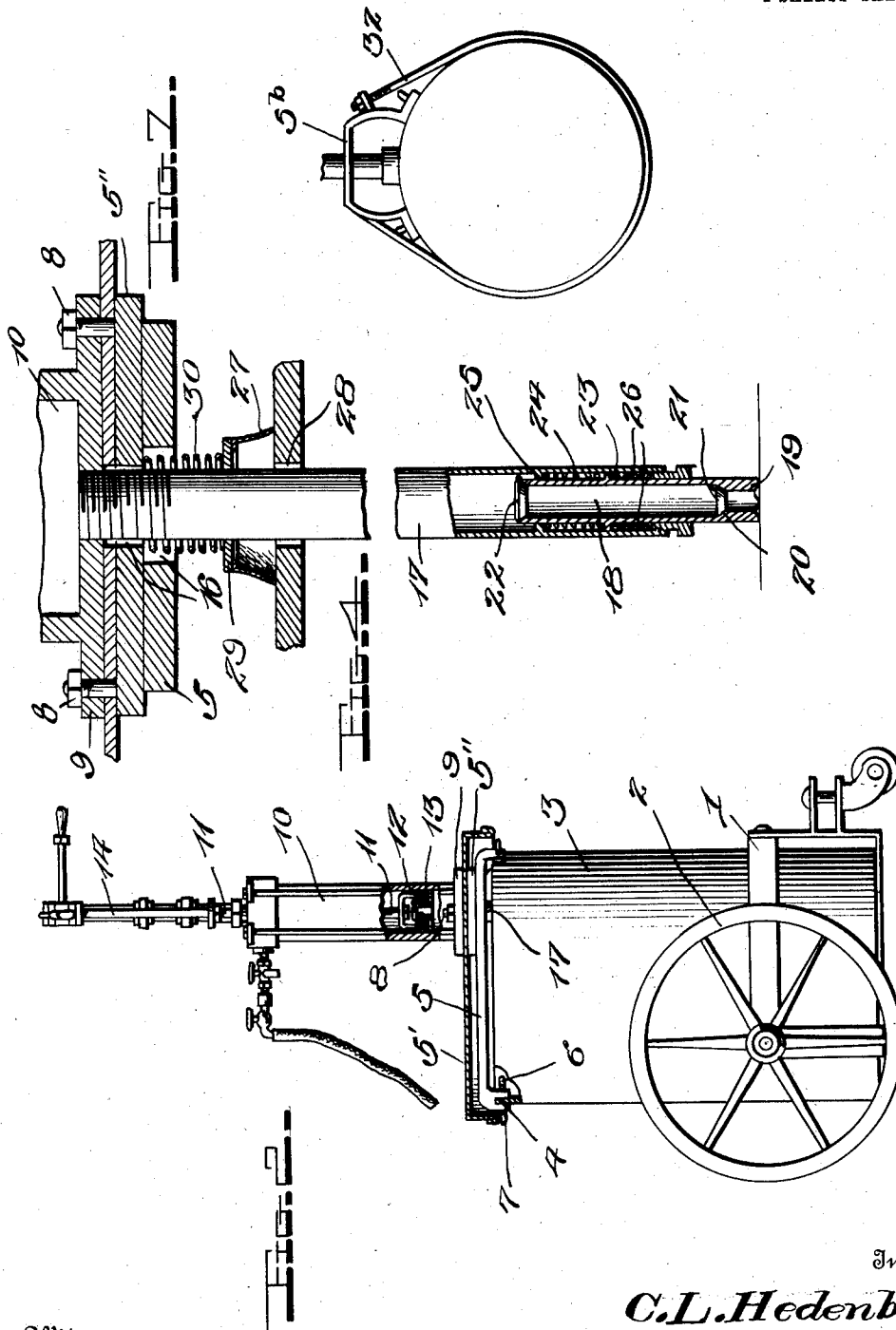
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UNITED STATES PATENT OFFICE.

CHARLES L. HEDENBERG, OF MADISON, GEORGIA.

PUMPING DEVICE.

1,043,763.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed April 12, 1912. Serial No. 690,344.

To all whom it may concern:

Be it known that I, CHARLES L. HEDENBERG, a citizen of the United States, residing at Madison, in the county of Morgan and State of Georgia, have invented certain new and useful Improvements in Pumping Devices, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention comprehends certain new and useful improvements in self measuring pumps and attachments therefor, and the invention has for its primary object a simple and efficient construction of device of this character which may be conveniently used in dispensing gasoline or other liquids from the steel drums or barrels in which such liquids are shipped.

20 A further object of the invention is an improved pump attachment by the use of which the pump may be quickly and securely attached to the top of a drum or other storage receptacle or reservoir, and the liquid directly dispensed therefrom and measured as it is discharged from the pump.

25 A still further object of the invention is a device of this type embodying an improved construction of automatically adjustable foot valve support, whereby the inlet tube of the pump will automatically adjust itself for drums of varying heights.

30 The invention also has for its object, in a device of this character, improved means for excluding dust and air from the inlet opening of the drum when the pump barrel or stock is mounted therein. And the invention also aims to generally improve devices of this class and to render them more useful and commercially desirable.

35 With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

40 For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which—

50 Figure 1 is an elevation of my improved measuring pump and attachments therefor; Fig. 2 is a similar view, partly in section, taken at right angles to Fig. 1; Fig. 3 is a top plan view, parts being broken away; 55 Fig. 4 is a sectional view through the inlet pipe of the pump; and Figs. 5, 6 and 7 illus-

trate modifications hereinafter specifically referred to.

Corresponding and like parts are referred to in the following description and indicated in the accompanying drawings by like reference characters.

60 In connection with my improved measuring pump and its supporting attachments, I preferably employ a truck 1 which is mounted on traveling wheels 2, whereby the drum 3 which contains gasoline or other fluid may be easily rolled from place to place as required. The drum 3 is formed, as usual, at its upper end with an upstanding rim flange 4.

65 Mounted upon the top of the drum 3 is a base bar 5 which, in the present instance, is formed with three points of bearing, each of which is recessed to fit over the rim flange 4 and carries an inwardly disposed adjusting screw 6 and an outwardly disposed tensioning screw 7, whereby the base bar 5 may be securely connected to the top of the drum. The base bar 5 is provided with upwardly projecting stud bolts 8 near one end, said stud bolts being laterally spaced from each other, as clearly illustrated in the drawings, and being designed for insertion through openings formed in the base flange 9 of a pump barrel 10, nuts being screwed on the upper ends of the bolts 8 so as to securely hold the pump barrel in position.

70 The pump itself may be of any desired construction, except as hereinafter noted, and embodies the ordinary plunger rod 11, to the lower end of which the piston 12 is secured, the leather of the piston being pressed outwardly against the wall of the pump barrel or body by means of a coil spring 13, as shown, the pump rod being operated by means of a rack 14 which meshes with a spur pinion 15 that may be turned by a crank handle mounted at any desired point and operatively connected to the spur pinion by sprocket chain connections. As the means for operating the pump does not, in itself, form any part of the present invention, it is not illustrated, nor is it specifically described. It will be understood, however, that the pump embodies the ordinary measuring features, including a register which is so constructed that it will measure the total number of gallons discharged and also measure by tens of gallons in succession, which is a feature incidental to measuring pumps for gasoline and similar fluids.

Secured to the base of the pump barrel 10 and extending downwardly through an opening 16 formed for it in the base bar 5 and on down through the top opening of the drum 3, is a pump stop or inlet pipe 17. Within the lower end of the pump 17 a sleeve 18 is mounted for a vertically sliding movement, said sleeve being adapted to abut against the bottom of the drum 3 and being formed with a corrugated or other lower edge, whereby free access may be had for the liquid to flow from the drum upwardly into the sleeve and thence into the pipe 17. The sleeve 18 is formed near its lower end with an upwardly facing valve seat 20 on which a foot valve 21 is adapted to rest, the sleeve being provided at its upper end with a corresponding seat for another foot valve 22. Intermediate of its ends, the sleeve is formed with an annular flange 23, against which one end of an expansion spring 24 bears, the other and upper end of the spring 24 reacting against a relatively stationary flange 25 which is formed on the interior of the pipe 17. By this means, as will be understood, the sleeve 18 will automatically adjust itself so as to compensate for drums of varying heights.

26 designates a stuffing box and packing which is secured in the lower end of the pipe 17 to form a tight joint around the sleeve.

In order to exclude dust and dirt from the interior of the drum when my improved device is applied thereto, and is in operation, I preferably employ a cap 27 of leather or the like which is adapted to surround the pipe 17 and the opening 28 of the drum through which said pipe extends, the lower edge of said cap bearing against the top of the drum and the upper edge of the cap being secured to a collar 29 which fits snugly on the pipe 17 and which is pressed downwardly by means of an expansion spring 30 which bears at its upper end upon the lower surface of the pump base.

Preferably, in order to prevent rain water or dust from collecting upon the top of the drum 3 and in order to provide a platform whereon funnels or cans may be placed, I provide a cover 5' with a downturned marginal flange, as clearly illustrated in Figs. 1, 2 and 3, said cover being held in place by being interposed between the plate 5" which forms an integral part of the base bar 5 and the superjacent base flange 9 of the pump barrel 10.

From the foregoing description in connection with the accompanying drawings, the operation of my improved self measuring pump and attachments will be apparent.

In the practical use of the device, the base 5 is secured to the rim flange 4 of the drum 3 and the pump body 10 is secured in place on said base with the pipe 17 inserted

through the top opening 28 of the drum and with the valve carrying sleeve 18 resting at its lower end upon the bottom of the latter. The liquid contained within the drum 3 may then be measured and dispensed as required and when the drum is empty, it is evident that the parts may be easily detached and applied to a full drum.

It is to be understood that my invention is not limited to the exact form of base 5, and various changes may be made in the construction and arrangement of this and other parts of the device without departing from the scope of the invention as defined in the appended claims. For instance, instead of using a base like that hereinbefore specified and illustrated in the correlated views of the accompanying drawings, I may use a base like that indicated at 5^a in Fig. 5 which is secured to the rim flange of the drum and which is provided with a foot 31 adapted to rest upon the top of the drum. Or, as illustrated in Fig. 7, if the drum is disposed horizontally with an outlet opening at the side, I may employ a base like that illustrated at 5^b connected to the drum of an encircling strap or straps 32. If the pump is to be used with an ordinary wooden barrel, I may use a support like that indicated at 5^c in Fig. 6, secured to the upper head of the barrel by screws or similar fastening devices.

Having thus described the invention, what is claimed is:—

1. A pump of the character described, including a base designed for attachment to a storage receptacle, a body secured to said base, an inlet pipe designed to extend down into the receptacle and connected at its upper end to the lower end of the body, a sleeve mounted to slide longitudinally in the lower end of said pipe, a foot valve carried by said sleeve, a stuffing box surrounding said sleeve and secured to the lower end of the pipe, and means tending to move the sleeve downwardly from the lower end of the pipe.

2. A pump of the character described, including a body, an inlet pipe extending downwardly from said body, a vertically disposed sleeve mounted in the lower end of the body and formed intermediate of its ends with an exterior annular flange, the pipe being formed above said flange with an interior flange, an expansion spring surrounding the sleeve and bearing against said flanges, and a lift valve carried by said sleeve.

3. A pump of the character described, including a body, an inlet pipe extending downwardly from said body, a vertically disposed sleeve mounted in the lower end of the body and formed intermediate of its ends with an exterior annular flange, the pipe being formed above said flange with an interior flange, an expansion spring sur-

rounding the sleeve and bearing against said flanges, and a lift valve carried by said sleeve, the lower end of the sleeve being corrugated, for the purpose specified.

5 4. A pump of the character described, including a base, a body connected to said base, an inlet tube connected to said body and adapted to extend down through the opening of a receptacle, a flexible cap sur-
10 rounding said pipe and adapted to encircle the said opening of the receptacle, and an expansion spring pressing downwardly upon said cap, for the purpose specified.

15 5. A pump of the character described, including a base in the form of a bar having downwardly facing recessed ends adapted

to extend over the rim flange of a tank, set screws carried by said ends for engagement with said flange, the base bar being provided with upwardly projecting studs, a pump 20 body formed with a base flange having openings to receive said studs, pumping elements carried by said body, and an inlet pipe secured to the lower end of said body and adapted to extend downwardly there- 25 from through the base bar into a receptacle.

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

CHARLES L. HEDENBERG.

Witnesses:

W. G. THOMPSON,
L. S. STOKES.