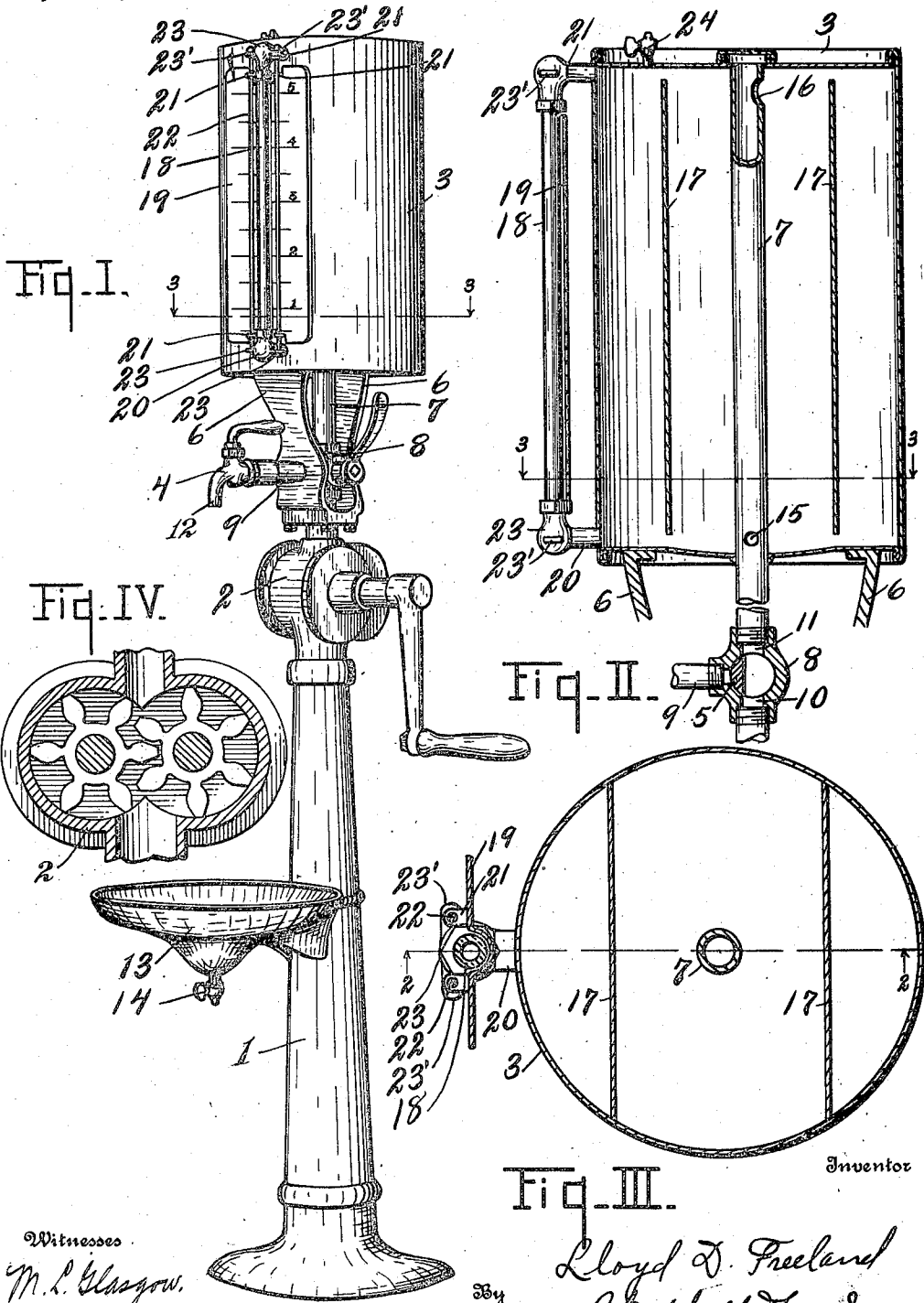


L. D. FREELAND.
MEASURING PUMP.
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1,061,062.

Patented May 6, 1913.



Witnesses
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Fig. III.
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UNITED STATES PATENT OFFICE.

LLOYD D. FREELAND, OF PORTAGE, WISCONSIN.

MEASURING-PUMP.

1,061,062.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed April 3, 1911. Serial No. 618,538.

To all whom it may concern:

Be it known that I, LLOYD D. FREELAND, a citizen of the United States, residing at Portage, Wisconsin, have invented certain new and useful Improvements in Measuring-Pumps, of which the following is a specification.

This invention relates to improvements in measuring pumps or devices.

The main objects of this invention are to provide an improved measuring pump which is capable of rapid and easy manipulation. One by which accurate measurements may be quickly made and one which may be used as a pump for filling the storage reservoir where circumstances require.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a perspective view of a structure embodying the features of my invention. Fig. II is an enlarged detail section taken on a line corresponding to line 2-2 of Fig. III. Fig. III is a horizontal section taken through the measuring receptacle on a line corresponding to line 3-3 of Figs. I and II. Fig. IV is a detail vertical section through the reversible pump 2.

In the drawings, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the standard 1 supports the pump 2, the measuring receptacle 3 and the tray 13. The standard 1 is tubular to receive the pipe connecting the pump to the storage reservoir or barrel, the reservoir and the reservoir pipe not being illustrated. The pump 2 is of the rotary reversible type, that is when rotated in one direction it pumps into the measuring tank 3 or to the faucet 4 and when rotated in the other direction draws from the tank 3 or through the faucet 4 according to the position of the control valve 5. The reversible

pump 2 is shown in vertical section in Fig. IV. The operation of this pump will be readily understood.

The measuring receptacle 3 is mounted on a bracket 6 on the pump. The pump is connected to the measuring receptacle by means of the pipe 7. The valve casing 8 of the valve 5 is arranged in this pipe connection. The faucet 9 is arranged through one arm of the bracket 6 and connected to the valve casing as shown in Fig. II. When the valve is in the position shown in Figs. I and II, the pump is connected to deliver to or draw from the measuring receptacle 3. When swung to position to close the port 10 the measuring receptacle is connected to the faucet, so that the liquid can be drawn from the measuring receptacle through the faucet. When swung to position to close the port 11, the liquid may be pumped directly to the faucet or liquid may be pumped to the storage tank by attaching a hose to the faucet nipple 12.

A tray 13 is arranged on the standard to support the cans or receptacles to be filled, this tray is provided with a drain cock 14.

The delivery pipe 7 is preferably extended to the upper end of the measuring receptacle 3 as shown in Fig. II and assists in supporting the same upon the brackets 6. The pipe is provided with discharge holes 15 and 16 at each side of the pipe.

I arrange partitions 17 opening at their upper and lower ends as illustrated. A gage tube 18 is connected to the top and bottom of the receptacle as shown. A measure scale 19 is mounted on the arms 20, the scale being in the form of a sheet metal strip having ears 21 struck up therefrom through which the rods 22 carried by the ears 23 on the arms 23 are arranged. The partitions within the measuring receptacle cause the liquid to rise therein evenly and with a minimum of agitation so that accurate measurements can be had without waiting for the agitation which would otherwise result from the pumping of the liquid into the receptacle to subside.

Should too much liquid be pumped into the receptacle it can be withdrawn therefrom by means of the reversibly acting pump. The valve 5 can be adjusted to draw the liquid from the receptacle or direct it from the pump to the receptacle or to discharge from the pump through the faucet or

draw through the faucet as stated. A vent cock 24 is provided for the measuring receptacle.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a measuring device, the combination of a standard, a reversibly acting pump mounted on said standard, a measuring receptacle, a supporting bracket therefor mounted on said pump, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent valve and with vertical partitions disposed one at each side of said delivery pipe there being openings at the tops and bottoms of said partitions; a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, or said faucet and pump, all coacting for the purpose specified.

2. In a measuring device, the combination of a standard, a reversibly acting pump mounted on said standard, a measuring receptacle, a supporting bracket therefor mounted on said pump, said receptacle being provided with a vent valve and with vertical partitions disposed one at each side of said delivery pipe, there being openings at the tops and bottoms of said partitions, a faucet connected to said delivery pipe and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, all coacting for the purpose specified.

3. In a measuring device, the combination of a standard, a pump mounted on said standard, a measuring receptacle, a supporting bracket therefor mounted on said pump, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent valve and with vertical partitions disposed one at each side of said delivery pipe there being openings at the tops and bottoms of said partitions, a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, or said faucet and pump, all coacting for the purpose specified.

4. In a measuring device, the combination of a standard, a pump mounted on said standard, a measuring receptacle, a supporting bracket therefor mounted on said pump, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent valve and with vertical partitions disposed one at each side of said delivery pipe there being openings at the tops and bottoms of said partitions, a faucet connected to said delivery pipe, and a valve in

said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, all coacting for the purpose specified. 65

5. In a measuring device, the combination of a standard, a pump mounted on said standard, a measuring receptacle, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent valve and with vertical partitions disposed one at each side of said delivery pipe there being openings at the tops and bottoms of said partitions, a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, all coacting for the purpose specified. 75

6. In a measuring device, the combination of a reversibly acting pump, a measuring receptacle, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent, a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet or said faucet and pump, all coacting for the purpose specified. 80

7. In a measuring device, the combination of a reversibly acting pump, a measuring receptacle, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent, a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, all coacting for the purpose specified. 85

8. In a measuring device, the combination of a measuring receptacle, a reversibly acting pump, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent, a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet or said faucet and pump, all coacting for the purpose specified. 90

9. In a measuring device, the combination of a measuring receptacle, a reversibly acting pump, a delivery pipe connecting said pump and receptacle, said receptacle being provided with a vent, a faucet connected to said delivery pipe, and a valve in said delivery pipe adapted to connect said pump and receptacle or said receptacle and faucet, all coacting for the purpose specified. 95

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

LLOYD D. FREELAND.

Witnesses:

NOBLE GRINER,
WM. O. KELM.