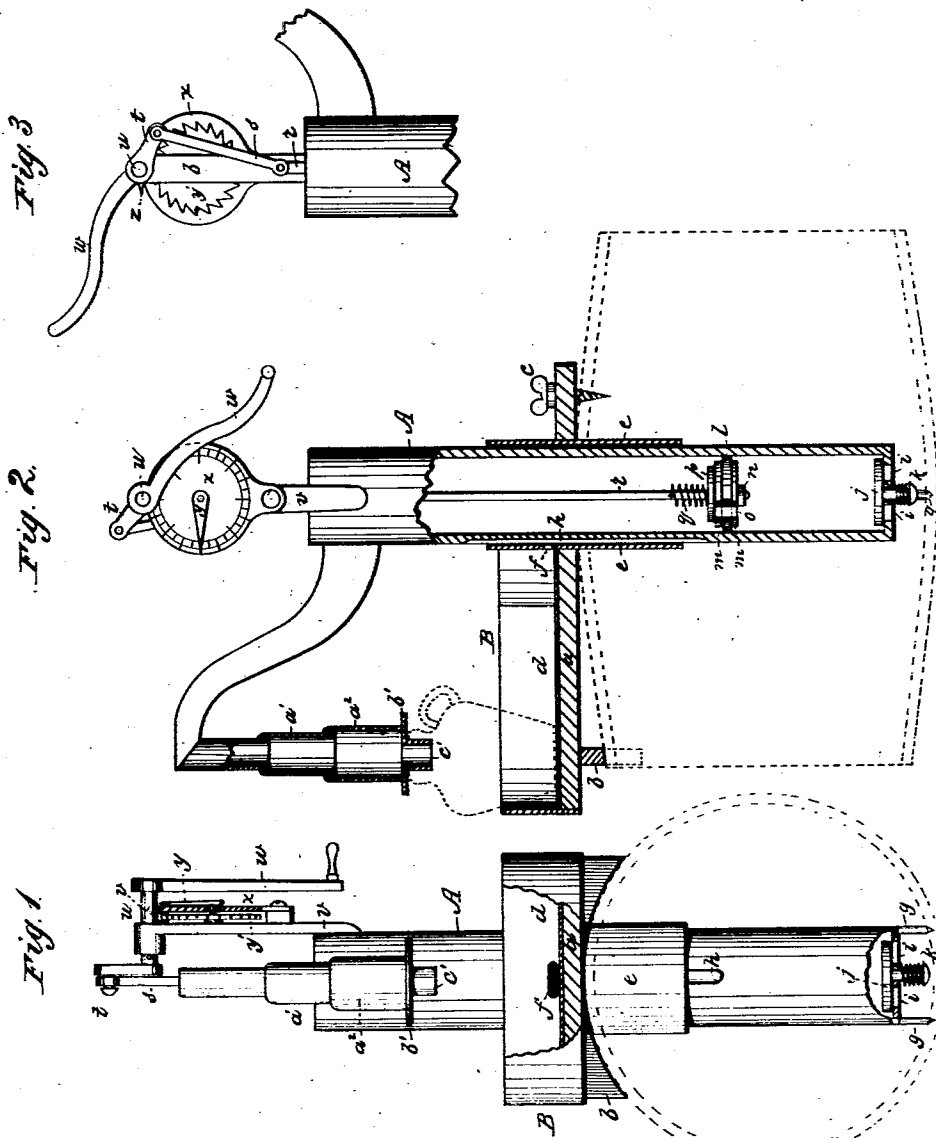


(No Model.)

F. HARRIS.
Measuring Pump.

No. 231,795.

Patented Aug. 31, 1880.



WITNESSES:

W. W. Hollingsworth
Edw. W. Pyrie.

INVENTOR:

F. Harris.

BY *Rum*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FRADELSHON HARRIS, OF ROCKPORT, ILLINOIS.

MEASURING-PUMP.

SPECIFICATION forming part of Letters Patent No. 231,795, dated August 31, 1880.

Application filed May 25, 1880. (No model.)

To all whom it may concern:

Be it known that I, FRADELSHON HARRIS, of Rockport, in the county of Pike and State of Illinois, have invented a new and Improved Measuring-Pump; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation with the basin and the lower part of the pump-cylinder broken out. Fig. 2 is a side view with the pump-cylinder, tray, and spout in section. Fig. 3 is a side view of the working devices, showing the opposite side from Fig. 2.

My invention relates to an improved measuring-pump designed to draw out all the fluid from a barrel and to correctly measure molasses, oil, or any other liquids, and to dispense with oil-tanks, measures, funnels, and tapping devices.

To this end my invention consists in the peculiar construction of the pump; also, in the peculiar combination of the pump with registering devices, and in the peculiar construction of an extensible spout adapted to connect the discharge-pipe of the pump with various lengths of jug or can, as hereinafter fully described.

In the drawings, A represents the pump, and B the tray. This tray is formed of a plain wooden table, *a*, having in front an arched support, *b*, and in the rear a set-screw, *c*, by which it is fixed to the barrel and adjusted to a horizontal position, the arched support straddling the curve of the barrel and the set-screw biting the barrel, so as to hold the table stationary and adjust it to a horizontal position. Upon this table is formed a shallow sheet-metal basin, *d*, in which the cans, jugs, or receptacles for the liquid are placed, and the inclosed sides of which basin serve to collect any drip or overflow. At the rear end of this basin is arranged a vertical tube, *e*, extending through the table *a* to a considerable distance below the basin, and adapted to enter the bung-hole of the barrel. Between this tube *e* and the basin *d* communication is made through a hole, *f*, by which the collected drippings in the basin find their way down the tube *e* and back into the barrel again. Into this tube *e* the

pump-cylinder is inserted, and by the same it is held in an erect position, in connection with points *g g* on its lower end, which are made to fix themselves into the wood of the bottom side of the barrel.

The pump-cylinder fits snugly in the tube *e*, and to give room for the drippings in the basin to find passage to the barrel the periphery of the pump-cylinder opposite the opening *f* is indented or channeled longitudinally, as shown at *h*.

With respect to the construction of the pump, it is provided at its lower end with one or more holes, *i*, over which fits and plays an inwardly-opening disk-valve, *j*, having a stem which protrudes through the lower end of the cylinder and carries a head, and around which stem, and between which head and the end of the cylinder, a spiral spring, *k*, is arranged, whose tension serves to hold the valve down to close the opening. The action of this stem and spring is protected by the points *g g*, which project below the same and hold it away from the bottom of the barrel.

The piston is composed of an elastic ring, *l*, clamped between the flanges *m m* by a nut, *n*, and has openings *o* through the same, over which closes a disk-valve, *p*, which is forced downwardly by a spiral spring, *q*, encompassing the piston-rod *r*. This piston-rod extends through the closed end of the pump-cylinder, and is jointed to a pitman, *s*, connected with a crank, *t*, on the shaft *u*. This shaft is a short horizontal one, journaled in a bearing in an upwardly-extending post, *v*, mounted on the pump-cylinder, and at its outer end said shaft is provided with a crank-arm, *w*, for turning the same. On the outside of this post is a graduated disk, *x*, offset from the said post and fixed to the same at its lower side by a bolt, and stayed at its top side by a notch which receives the short shaft *u*. Between this disk and the post is placed a ratchet-wheel, *y'*, which carries on the outside of the disk an index-hand, *y*, which moves over the face of the graduated dial. This ratchet-wheel is placed in such proximity to the shaft *u* that a tappet, *z*, on said shaft strikes the ratchet-wheel and moves it one tooth at every revolution of the shaft *u* or complete stroke of the piston.

Now, the capacity of the cylinder and stroke

of the piston being relatively proportioned to discharge a given amount—a gill, for instance—it will be seen that the number of revolutions and number of gills discharged will be registered by the movement of the index-hand over the dial-face, which is marked off in gills, pints, and quarts, or other quantities.

In order to dispense with the funnel ordinarily employed, and to direct the discharge of the liquid directly into the receptacle which is to receive it, the discharge-spout of the pump is carried to an elevated point high enough to allow the interposition between the spout and the tray below of the largest receptacle ordinarily used to receive that kind of liquid. Then, to adapt the spout to direct the discharging stream directly into vessels of shorter length, there are suspended upon the end of the rigid spout several telescopic sections, a' a^2 , the lowest one of which sections has a flange, b' , fitting over the mouth of the vessel into which the liquor is to be discharged, and a small neck, c' , which enters the said vessel and prevents spilling. These telescopic sections are connected by inturned flanges at their upper ends and outturned flanges at their lower ends, which limit the range of movement and form a permanent extensible spout.

Having thus described my invention, what I claim as new is—

1. The combination of the pump-cylinder having a longitudinal indentation, h , and the basin d , having tube e , with a hole, f , in the same adapted to carry the drip down the tube, as set forth.

2. The pump A, having a support or post, v , a shaft, u , connected with the piston-rod and provided with a crank and having a tooth or tappet, z , the dial-disk x , offset from the post and carrying between it and the post a toothed wheel connected with an index-hand, y , all combined substantially as and for the purpose described.

3. The combination, with the discharge-spout of a pump, of a set of telescopic tubular sections having inturned flanges at their upper ends and outturned flanges at their lower ends, forming a permanent extensible spout, substantially as and for the purpose described.

FRADELSON HARRIS.

Witnesses:

MOSES D. GREENGARD,
JACOB HAMBACH.