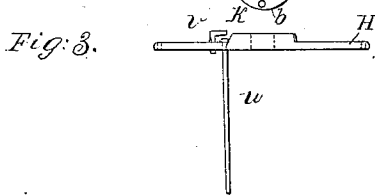
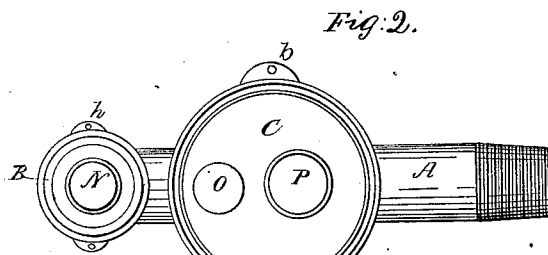
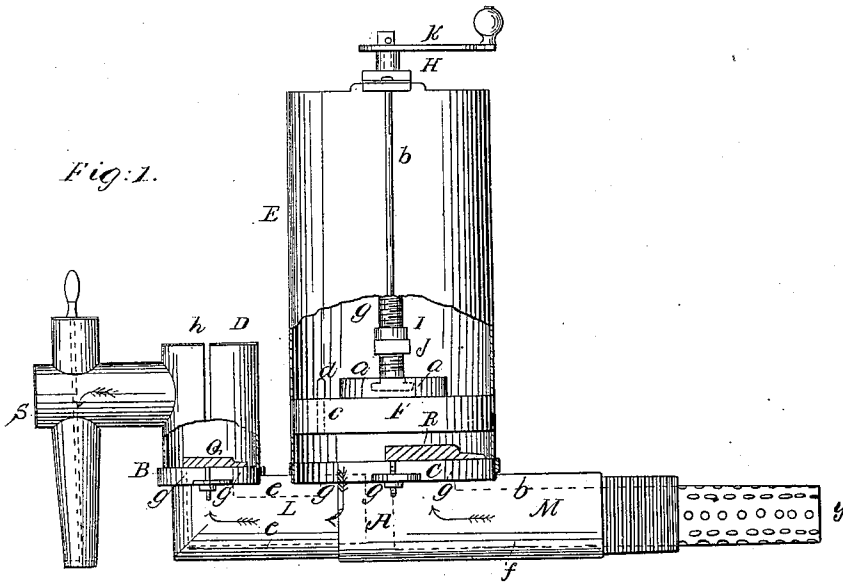


*J. & S. Fahrney,  
Molasses Gate.*

*No 40,029.*

*Patented Sep. 22, 1863.*



*Witnesses:  
Amos Emmert  
Andrew Lusk.*

*Inventors:  
Sam<sup>r</sup> Fahrney  
John Fahrney.*

# UNITED STATES PATENT OFFICE.

JOHN FAHRNEY AND SAMUEL FAHRNEY, OF BOONSBOROUGH, MARYLAND.

## IMPROVEMENT IN MOLASSES-FAUCETS.

Specification forming part of Letters Patent No. 40,029, dated September 22, 1863.

*To all whom it may concern:*

Be it known that we, JOHN FAHRNEY and SAMUEL FAHRNEY, of Washington county and State of Maryland, have invented a new and useful Apparatus for Drawing and Measuring Molasses or Sirup; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Similar letters in the several figures refer to corresponding parts.

Figure 1 is a side view of the apparatus, with a section of the front walls of the cylinders D E removed, for the purpose of showing their interiors. Fig. 2 is a top view of the pipe A with its circular plates B C and openings N O P through the upper wall of said pipe. Fig. 3 is a side view of the cross-bar H, showing the position of the sliding rod *u* and thumb-screw *v*.

This apparatus consists of a horizontal cast-iron pipe, A, with two circular plates, B C, appended to and cast with its upper surface. These circular plates serve as floors and bottoms for two vertical hollow sheet-tin cylinders, D E, the former being closed at the top and the latter open. In cylinder E moves a piston, F, whose rod G has a cap or head formed on its lower end, which plays in a corresponding excavation in the cap of the piston, as indicated by the dotted lines *a*. Said piston-rod has a screw-thread cut upon it throughout its whole length, which works in a corresponding female thread in the cross-bar H, through the center of which it passes. Said cross-bar rests upon the top of cylinder E, held in position by small projections from the same and by a screw-rod, *b*, from each of its projecting ends, passing through the wings of plate C, which also secures the air-tight fitting of the cylinder on the plate. Upon the screw piston-rod G is a regulating screw-nut, I, beneath which is another similar one, J, for the purpose of fixing it when set. By the crank K the piston-rod is revolved and motion given to the piston. The dotted lines *c* indicate the position of a vertical hole through the piston F, into which is fitted a plug, *d*. The bore of pipe A is in two sections, L M, indicated by dotted lines *e f* in Fig. 1, intersected by circular openings through the upper wall of the pipe, as indicated by

dotted lines *g* and shown at N O P in Fig. 2. Over openings N P are placed heavy valves Q R, closing air-tight upon beveled lips projecting from the margins of said openings. The cylinder or valve-chamber D is secured to its floor air-tight in a similar manner to that of cylinder E by screw-rods *h*. Both said cylinders rest upon gum-packing, laid in the circular grooves 1 2 in plates B C, Fig. 2. With valve-chamber D is connected a piston stop-cock, S, the piston and its rod being indicated by dotted lines *i*. The open end of pipe A is a little conical and has a fine screw-thread cut upon it. Into this end of the pipe is inserted the open end of a tin pipe or tube, T, with perforated walls. Through a vertical hole in the cross-bar H a rod, *u*, capped at its upper end, is fitted loosely, and near the said hole is placed a regulating thumb-screw, V, with a projecting shoulder, as shown at *k* in Fig. 3.

Operation: To use this apparatus screw the pipe A firmly into the tap-hole of the vessel containing the molasses or sirup. Now, revolve the crank K and sink the piston F as far as it will go and cover the upper surface of the same with a layer of molasses about one-fourth of an inch thick, for the purpose of perfecting its air-tight operation. Next raise the piston F until the nut I stops against the cross-bar H. As the piston thus rises the valve R opens and the molasses follows the piston in the cylinder beneath it. Next draw up the piston of the stop-cock S and remove the plug *d*. Now, reverse the motion of the crank, and as soon as all the air has escaped through the hole *c* in the piston, (the air which remained between the molasses below and the lower surface of the piston,) replace the plug *d* permanently, and continue sinking the piston until it stops against the valve R and push down the piston of the stop-cock. As the piston F thus sinks the valve R closes, and the molasses in cylinder E enters opening O into the pipe, passes through opening N, raises valve Q, enters valve-chamber D, thence it flows into the stop-cock S and out of the mouth of the same. The current of the molasses is also indicated by the arrows in Fig. 10. The apparatus being thus prepared, all that is necessary to draw exactly one quart of molasses at a single operation is to revolve the crank R until the nut I stops against the

cross-bar H, next draw up the piston of the stop-cock, now reverse the motion of the crank until the piston F stops against valve R and push down the piston of the stop-cock.

To draw a pint at one operation, the projection on the thumb-screw *v* must be turned so as to cover the top or cap of the sliding rod *u*. When this is done, raise the piston F until it stops against the lower end of the sliding rod, which will be prevented from sliding upward, as usual, by the projection *k* on the thumb-screw. The piston being thus stopped at half its usual height, there will be exactly half the usual quantity drawn at one operation. The perforated tube T serves as a filter to prevent anything from passing into the pipe that might prevent the proper action of the valves.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the pipe A, cylinders D E, valve R, piston F, opening O, and valve Q, as described.

2. In combination therewith the stop-cock S, as described.

3. In combination with cylinder E, the valve R, opening O, piston F, with the plug *d*, the screw-rod G, and crank K, as described.

4. The combination of the piston F, piston-rod G, cross-bar H, thumb-screw *v*, and sliding rod *u*, as and for the purposes described.

JOHN FAHRNEY.  
SAML. FAHRNEY.

Witnesses :

ANDREW EMMERT,  
DANIEL FAHRNEY.