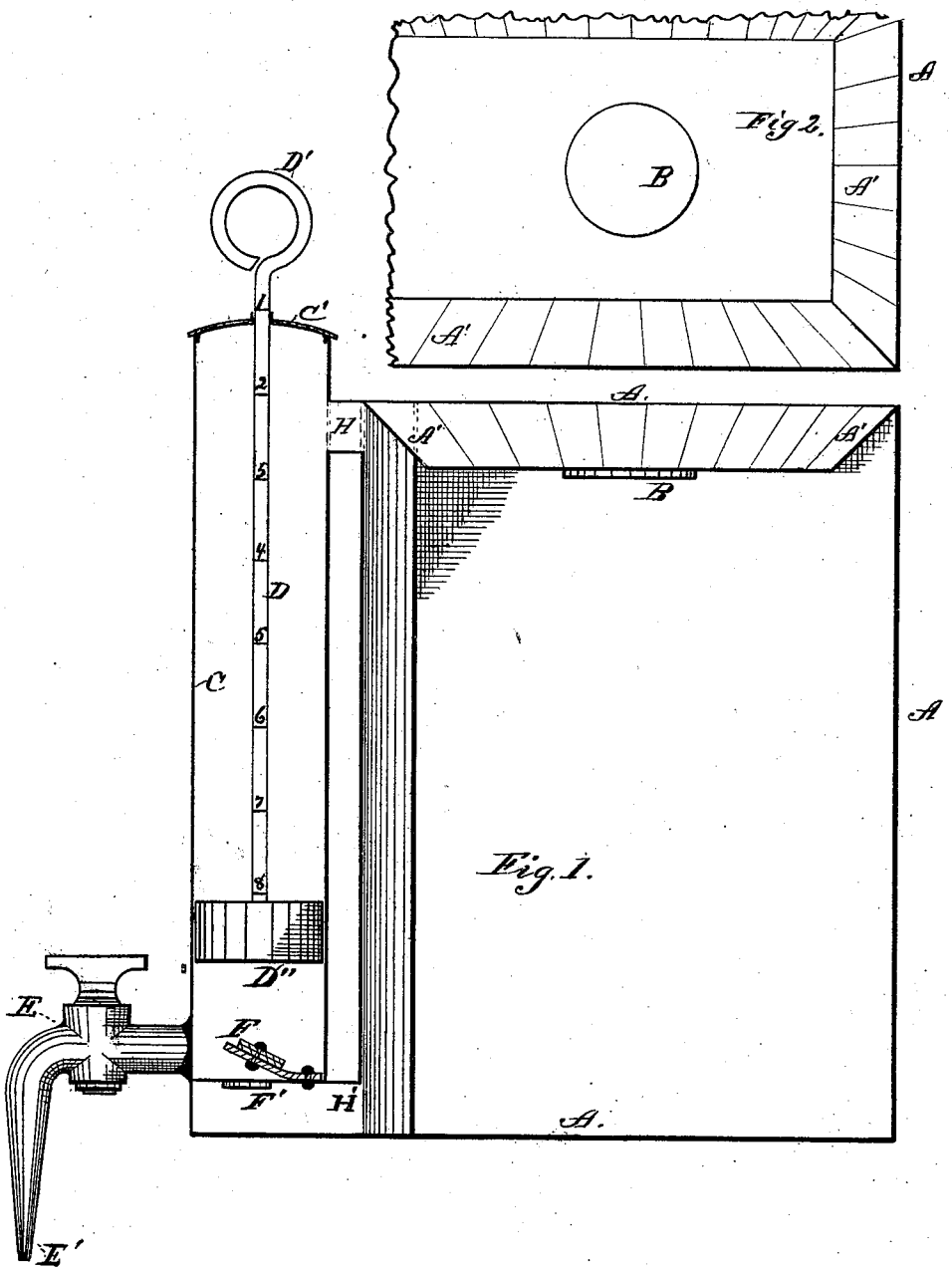
C. D. AUSTIN.

Liquid Measure.

No. 206,211. Patented July 23, 1878.



Attest:

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UNITED STATES PATENT OFFICE.

CHARLES D. AUSTIN, OF AMSTERDAM, NEW YORK.

IMPROVEMENT IN LIQUID-MEASURES.

Specification forming part of Letters Patent No. **206,211**, dated July 23, 1878; application filed February 18, 1878.

To all whom it may concern:

Be it known that I, CHARLES D. AUSTIN, of the village of Amsterdam, county of Montgomery, and State of New York, have invented a new and useful Improvement in Measuring-Tanks, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a sectional elevation of my invention, showing the tank A, with its depressed top A′, having therein the central hole B, the pump-barrel C, having and containing the graduated piston-rod D, handle D′, piston D″, valve and valve-seat F and F′, stop-cock E, having a long nozzle, E′, and the passages H and H′.

Fig. 2 is a broken sectional plan of the depressed top A′, having the central hole B.

The object of my invention is to furnish a device by which small bottles and vials may be rapidly filled with any thick fluid, such as castor-oil, or any thick fluids may be rapidly measured while being transferred from the tank to the receptacle wherein they are desired to be placed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the tank A of any suitable material, of such capacity as desired, with a depressed top, substantially as shown at A′, (see Figs. 1 and 2,) and having a large central hole, B, which hole B may be provided with a cork or cover.

From one side of the bottom, substantially as shown in Fig. 1, I extend out a suitable distance the passage-way H′, having therein the valve-seat F′ and the valve F. Upon H′, and near to the tank A, I place in a permanent manner the metallic pump-barrel C, which barrel I construct substantially as shown, and provide it with a suitable cover, C′, with a central square hole therein, to permit the square piston-rod D to pass freely through it. I construct the handle D′ to the upper end of the piston-rod, as shown. On the lower end I place the piston D″, which piston fits within the barrel C, and may be packed in the usual way.

The piston-rod D, I mark at equal spaces, and number them from the top downward with the numbers 1 2 3 4, &c., substantially as shown. At the top of the tank, substantially as shown, I place the passage-way H, thereby opening communication from the upper part of the pump-barrel to the tank.

At the lower outer part of the pump-barrel, and just above the valve F, I place the stop-cock. This stop-cock is provided with a long tapering nozzle, E′, so as to enter the neck of a vial or bottle.

The operation of my invention is as follows: The cock E is closed. The tank A is filled with any thick fluid, such as castor-oil, by pouring it from the shipping-case into the depressed top A′, when it freely runs through the large hole B into the tank A.

The piston is pressed down to the bottom and drawn up to the top, thereby filling the pump-barrel C. If a number of vials is to be filled, they are taken and placed successively after the cock E is opened, so that the nozzle E′ enters the neck of the vial. The piston is depressed a short distance, which closes the valve F on its seat F′, and forces the thick oil out through the cock E and nozzle E′ into the vial. The full vial is removed, and an empty one quickly put into its place. The piston is depressed a short distance again, thereby forcing the oil out through the cock and filling the vial.

To measure any given quantity, close the stop-cock E, elevate the piston, thereby charging the barrel; then open the stop-cock, and press the piston down until the figure indicating the quantity marked on the piston-rod will come even with the top of the cover C′.

Any particles of oil that may be forced by the piston D″ will pass through the passage-way H into the tank A when the piston is elevated.

When not in use the cock E should be closed to prevent waste.

With this improvement any thick fluids may be readily measured or forced into vials and bottles without waste of material or loss of time caused by their slow-running qualities.

It is also obvious that great waste of time and material is prevented by the use of the depressed top in filling the tank.

I am aware that transparent graduated cylinders have been used upon the outside of metal cans; and, also, that a graduated glass pump-cylinder arranged inside of a can, with piston-rod, suitable valves, and a faucet by which the

liquid is discharged from the cylinder, is old; and such I do not desire to claim as my invention. Such constructions are, however, obviously objectionable, as said graduated glass cylinders are very liable to be broken; and also being cemented to or within the cans will soon work loose, causing leakage of the liquid contained therein; but in my construction, by using a metallic pump-barrel arranged outside of the can, and having a graduated piston-rod, the objections incident to the above-described construction are entirely obviated.

What I claim as my invention, and desire to secure by Letters Patent, is—

The herein-described measuring-tank, having the depressed top A′, provided with central hole B, the metallic pump-barrel C, arranged outside of said tank and extending above the top thereof, and provided with a solid piston, D″, graduated piston-rod D, valve and valve-seat F and F′, and stop-cock E, having a tapering nozzle, E′, and the exit and return passage-ways H H′, forming a communication between the tank and pump-barrel at the top and bottom thereof, substantially as and for the purposes specified.

CHARLES D. AUSTIN.

Witnesses:

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