2 Sheets—Sheet 1.

# H. N. HATCH.

## Measuring Cabinet for Oils.

**No. 223,044.** **Patented Dec. 30, 1879.**

Fig: 1.

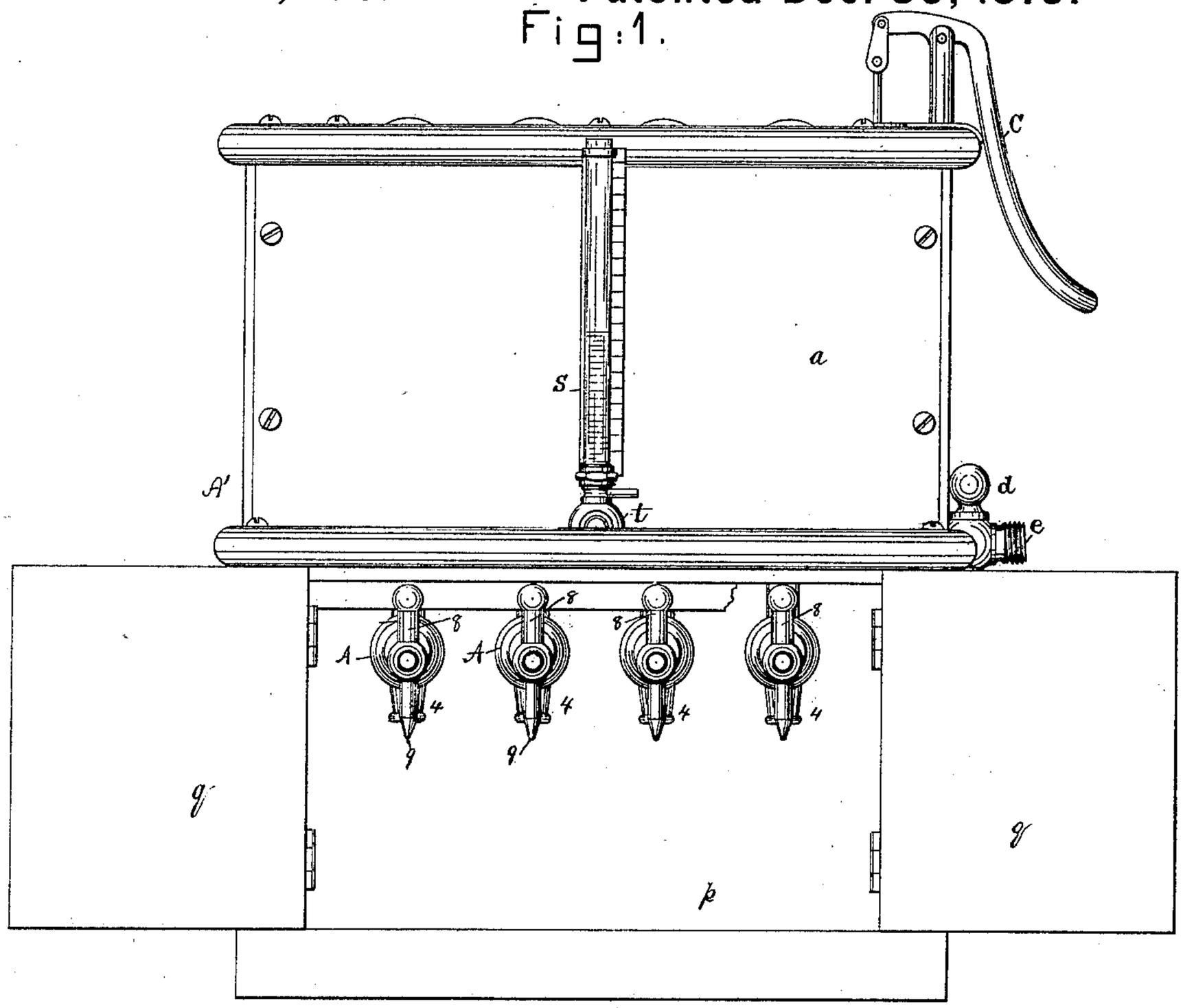
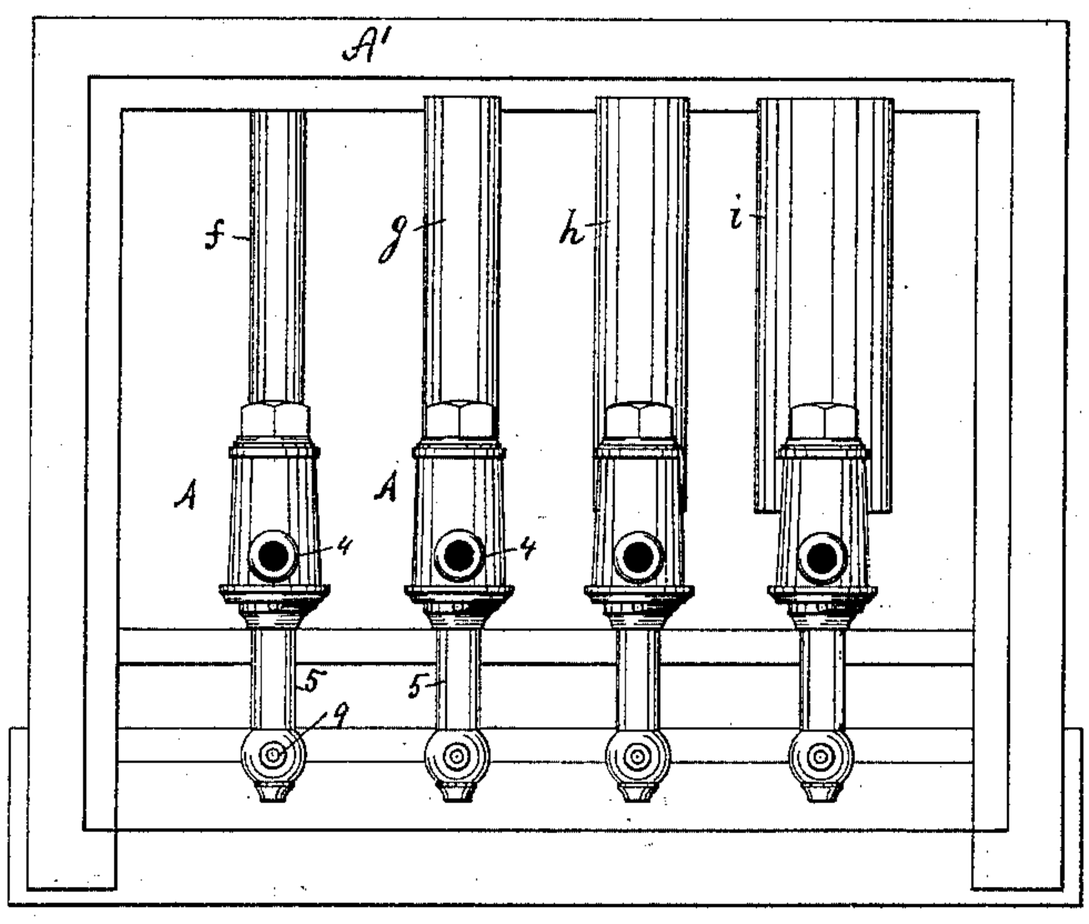



Fig: 2.




Witnesses.

G. F. Connor.

N. E. Whitney.

Inventor.

Horace. N. Hatch

by Crosby Gregory Attys

2 Sheets—Sheet 2.

# H. N. HATCH.

## Measuring Cabinet for Oils.

**No. 223,044. Patented Dec. 30, 1879.**

Fig: 3.

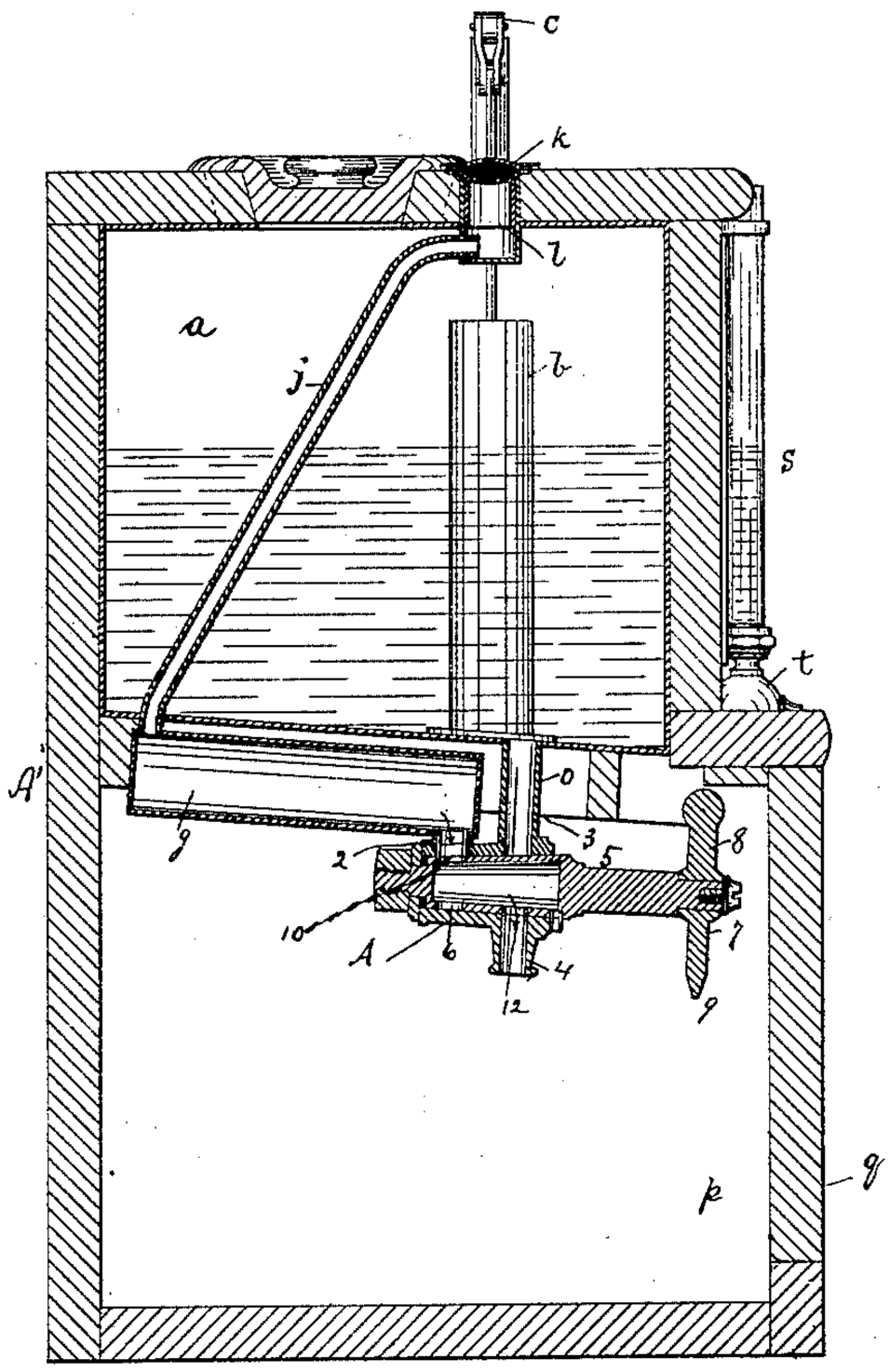
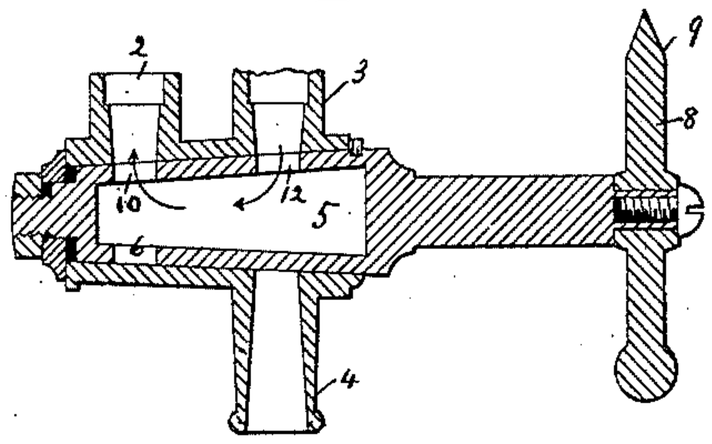



Fig: 4.




Witnesses.

L. F. Connor.
N. E. Whitney.

Inventor.

Horace N. Hatch
by Crosby & Gregory Attys

# UNITED STATES PATENT OFFICE.

HORACE N. HATCH, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN MEASURING-CABINETS FOR OILS.

Specification forming part of Letters Patent No. **223,044**, dated December 30, 1879; application filed August 19, 1878.

*To all whom it may concern:*

Be it known that I, HORACE N. HATCH, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Measuring-Cabinets for Oils, &c., of which the following description, in connection with the drawings forming a part thereof, is a specification.

This invention relates to a measuring-cabinet for oils and other fluids, and has for its object the production of a cabinet in which the oil in large quantities may be received from barrels, and from which it may be drawn or discharged in measured quantities through a valve connected with the tank and with the measuring-vessel, the shell of the said valve being provided with two inlets leading into it, one from the tank and the other from the measuring-vessel.

The invention consists of a portable measuring-cabinet for oils, &c., as an improved article of manufacture, composed of the tank and a series of connected measuring-vessels of different sizes and a series of valves connected each with the tank and with one of the measuring-vessels by independent inlets at the side of the valve-shell, the connection between each measuring-vessel and the tank being by a single valve, so constructed that communication between the tank and each measuring-vessel is established at all times, except when the valve is turned so as to discharge the contents of the measuring-vessel, and then the movement of the plug-valve cuts off the flow of the fluid from the tank to the vessel then being discharged.

The plug-valve in operation can discharge only the quantity of fluid in the measuring-vessel with which it is connected, which enables the merchant or clerk to leave the can or other vessel brought by his customer under the plug-valve connected with the measuring-vessel containing the quantity of fluid or oil desired by said customer and attend to other business, and on his return the customer's can or vessel will contain just the proper amount. Turning the plug-valve after the discharge of the measuring-vessel opens the communication between the said vessel and tank, and the former is quickly refilled ready to be again drawn off.

The tank is provided with a pump by which to pump oil from a barrel into it, and all leakage and waste are avoided.

Figure 1 represents, in front elevation, a measuring-cabinet constructed in accordance with my invention; Fig. 2, an under-side view, the bottom of the cabinet being omitted; Fig. 3, a vertical section of Fig. 1; and Fig. 4, an enlarged sectional view of the plug-valve.

The cabinet has at its top a tank, *a*, of capacity sufficient to contain a barrel or more of oil, which is transferred to the tank by means of a pump, *b*, placed preferably within the tank, the handle *c* of the pump being outside. The lower end of the pump is connected with a plug-valve, *d*, having a screw-threaded or other portion, *e*, suitable to be connected by a suitable pipe with the barrel containing the oil or fluid to be pumped into the tank.

Below the tank is arranged a series of measuring-vessels of different capacity, lettered *f g h i*, to hold, say, a pint, quart, two quarts, and a gallon. Each of these measuring-vessels has a pipe, *j*, which extends upward to a whistle, *k*, or air-chamber *l*, to permit the inflow and outflow of air as the measuring-vessel is being exhausted or filled, the whistle sounding during such times. Each measuring-vessel is connected with the inlet-pipe 2 of a plug-valve, A, such as shown in Figs. 3 and 4, the inlet 3 of the valve-shell being connected by pipe *o* with the bottom of the tank *a*. A pendent portion, 4, of the shell serves as the outlet or discharge of the valve, for through 4 the oil or fluid must pass into the customer's vessel contained in the closet *p*, provided, preferably, with doors *q*.

The valve-shell has, it will be seen, two side openings, 2 3, the latter always acting as an inlet to the plug 5, and the former alternately as an outlet and inlet, according to the position of the plug 5. The plug 5 has openings 6 10 12 and a handle, 8, and its end piece, 7, is preferably pointed, as at 9, to indicate the position of the opening 12.

When the parts are in the position shown in Fig. 4, the oil has free passage from the tank, through the plug and valve and openings 12 10, to that measuring-chamber with which the plug so opened is connected. In this instance the plug 5 effectually closes the discharge.

The plug-valves having been left as in Fig. 4, the measuring-vessels will always be filled, and on the arrival of a customer desiring a pint, quart, two quarts, or a gallon of oil, the store-keeper has only to turn the same plug-valve which admitted the oil into the measuring-vessel of the desired capacity to the position shown in Fig. 3, when the contents of that measuring-vessel will be discharged through inlet 2 and openings 6 12 and outlet 4, insuring just the amount of oil desired, and when the measuring-vessel has discharged its contents no more oil can issue from the valve, and no oil can be wasted or get on the floor.

The tank has a graduating index or pipe, *s*, connected with it by a valve or plug, *t*, so that the oil pumped into the tank may rise in the pipe *s* and indicate the quantity pumped into the tank from the barrel. This index or gage enables the merchant to know just the amount of oil placed in the tank, and the tank being air-tight the oil may be held with the minimum of evaporation.

The measuring-vessels and the valves A are arranged in a compartment, *p*, beneath the tank *a*, and this compartment has doors *q*, whereby, in connection with the external casing, A′, the whole apparatus may be inclosed. This compartment *p* also catches all drip from the valves.

I am aware that it is not new to attach a measuring-tank to a barrel so that a quantity of oil may be drawn into it and be measured by a scale thereon, and then by a movement of the same valve through which the oil passed to fill the measure to draw off the contents of the measure into the customer's can or pail, as in United States Patent No. 92,110; but in the apparatus described in said patent the attendant must stand by and watch the measuring-vessel fill to a certain mark, or must see it lower or draw off to a certain mark.

I am also aware that it is not new to attach a measuring-vessel to a barrel so that it may be filled with oil, and so that by means of another valve or plug the measuring-vessel may be emptied when desired.

I claim—

As an improved article of manufacture, the within-described portable cabinet for storing and measuring oil, &c., consisting of the oil-tank *a*, measuring-vessels *f g h i*, of graduated sizes, the valves A, constructed and arranged to operate as shown, pipes *j*, and whistle, the compartment *p* and its doors *q*, and the inclosing-case A′, the whole arranged substantially as illustrated and specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HORACE N. HATCH.

Witnesses:

N. E. WHITNEY,

G. W. GREGORY.