P. Noyes,

Drawing and Measuring Oil,

No. 107,951. Patented Oct. 4, 1870.

Fig. 1.

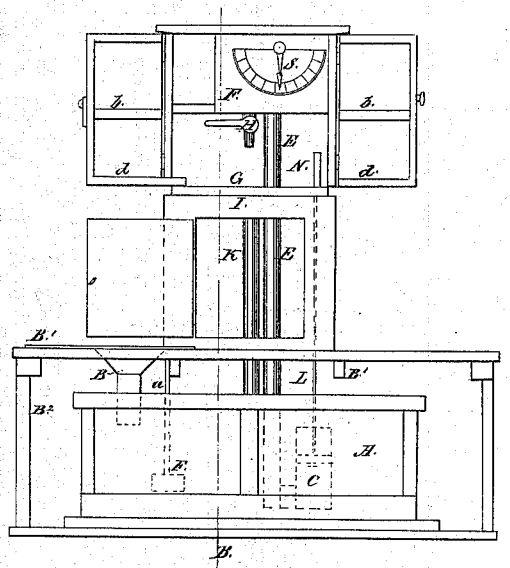


Fig. 2.

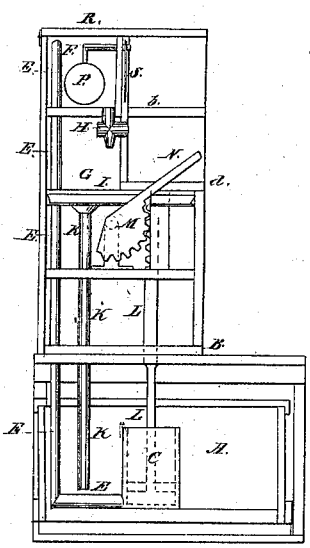


Fig. 3.

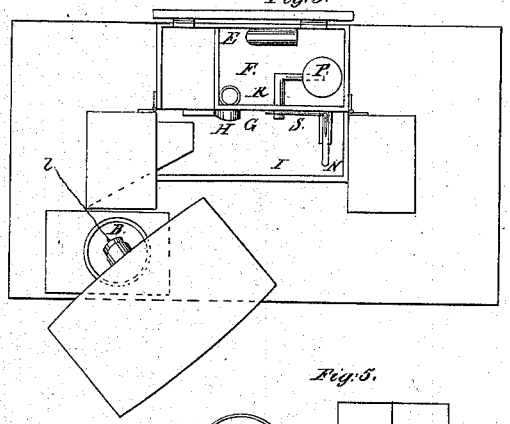


Fig. 4.

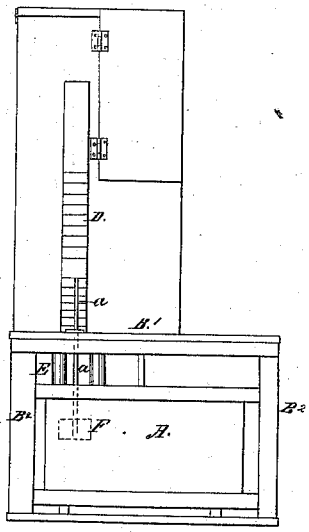
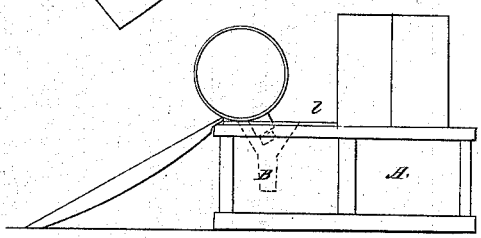


Fig. 5.



Witnesses:

Chas. Smith

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Inventor:

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UNITED STATES PATENT OFFICE.

PERSON NOYES, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN APPARATUS FOR DRAWING AND MEASURING OIL.

Specification forming part of Letters Patent No. **107,951**, dated October 4, 1870.

To all whom it may concern:

Be it known that I, PERSON NOYES, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in the Apparatus which is used for Storing, Drawing. and Measuring Oils, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a front view, with a section of the floor between an upper and a lower room, the latter intended to represent the cellar beneath a building and the former the first room above. Fig. 2 represents a sectional elevation on the line A B of Fig. 1. Fig. 3 represents a top view of Fig. 1; and Fig. 4, an end elevation, the floor B′ and the supports B^2 beneath the timbers being also shown. Fig. 5 represents the oil-storing tank and the case or cabinet connected, and a cask in position for emptying its contents into the storing-tank, a different elevation of the cask in its emptying position being shown in Fig. 3.

This invention relates to oil-storing tanks, to the apparatus employed for drawing and measuring oil and other liquids, and to the modes or means of filling the tank from casks or barrels; and it consists in the general arrangement and combination of all the essential operative and effective parts or elements, and in the manner hereinafter described.

In my said drawings, A represents the oil-storing tank, which has a conical or funnel-shaped filling-spout, B, provided with a strainer, of fine wire-gauze, to arrest impurities and to prevent communication of flame to the oil in the tank. The oil from a cask is emptied into the tank through the above-named spout by first introducing a tube or socket into the barrel bung-hole, and this socket is furnished with a stopple, which, when the cask is placed in position for emptying, is suddenly withdrawn by a cord, *e*, when the oil will be emptied into the tank without waste or loss.

In practice the storing-tank is preferably placed in a cellar, so as to exclude heat and light, either of which has an injurious tendency or effect upon the oil, especially if it be kerosene or other volatile oil or liquid, light being injurious by its effect to oxidize the oil and heat to cause more rapid evaporation, and consequently loss of the more volatile portions. In some instances where only a few gallons of oil are to be stored in the main tank, or oil which is not of a volatile nature, but such as is used for lubrication of machinery, and by force of circumstances I place the cased fountain on the top of the storing-tank, as seen in Fig. 5, and then roll the barrel up on the skids and empty the oil, as before described, and as seen in Fig. 5, wherein I arrange the pump and all the other parts substantially as shown in the other figures.

When the storing-tank A is placed in a cool cellar, a pump, C, of suitable construction, is arranged within said tank, and provided with a conducting and delivering tube, E, leading from the lower part of the pump-barrel outward, thence upward within and to near the top of a fountain, F, arranged in a case or cabinet situated in the room above the storing-tank. This case or cabinet consists of an upper and a lower compartment, each having a door or doors, as clearly shown in the drawings. The upper compartment contains the fountain above named, and below this is a measuring-space, G, into which depends a faucet, H, for drawing oil from the fountain. The lower part of the space G is a dripping-pan, I, and leading from this pan is a waste-pipe, K, which is intended to be directly under the faucet, so as to catch the drip of oil from the faucet, or oil running over a measure, or oil drawn from the fountain in emptying the latter, and return all such oil to the storing-tank immediately. The pump-rod L extends upward to near the top of the lower compartment of the case above named, and on the side of this rod are gear-teeth, to receive the similar teeth of a segmentary gear, M, having a lever-handle, N, extending to the upper compartment. The segmentary gear is pivoted between stands *c* or to the side of one such stand, and the pump is worked by the handle N to force oil upward into the fountain.

In the fountain last named I arrange a float, P, on an offset rod or crank-lever, R, one end of which passes through the front of the fountain, and bears an indicator-hand or pointer, S, on the face of a semicircular scale. When the oil is pumped up into the fountain, the float P rises, and this turns the hand and indicates an approximate height of the oil in the fountain, not in an accurate degree of measurement, but simply to convey to the mind of

the person about to draw and measure oil whether or not the fountain contains sufficient oil to supply the quantity intended to be drawn at that time, or whether he should pump up a further supply in order to fill the required measure, which, in most or all of the States, is required to be a separate and a sealed measure.

In the storing-tank A, I employ another float-indicator, T, (shown in dotted lines in Figs. 1 and 4,) and this float has a rod, *a*, which passes upward through the top of the tank A and through the floor B′ against the face of a scale, D, secured to the upper case, as seen in Fig. 4. This indicator is only intended to show when the oil gets low in the storing-tank, or when it is nearly full, so that in filling it need not be run over.

The front portion of the upper compartment or the upper portion of case or cabinet is formed into opening swinging doors, each provided with shelves *b* and *d*, on which to keep the measures used with the apparatus, and these deep doors are very convenient by making the working parts easier accessible for pumping and measuring oil and for storage of the measures.

I claim as my invention—

The tank A, provided with a float and register, in combination with a pump, C, delivery-tube E, fountain F, provided with a faucet, H, and index S, and a waste-pipe, K, when all are arranged to operate substantially as set forth.

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Witnesses:

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