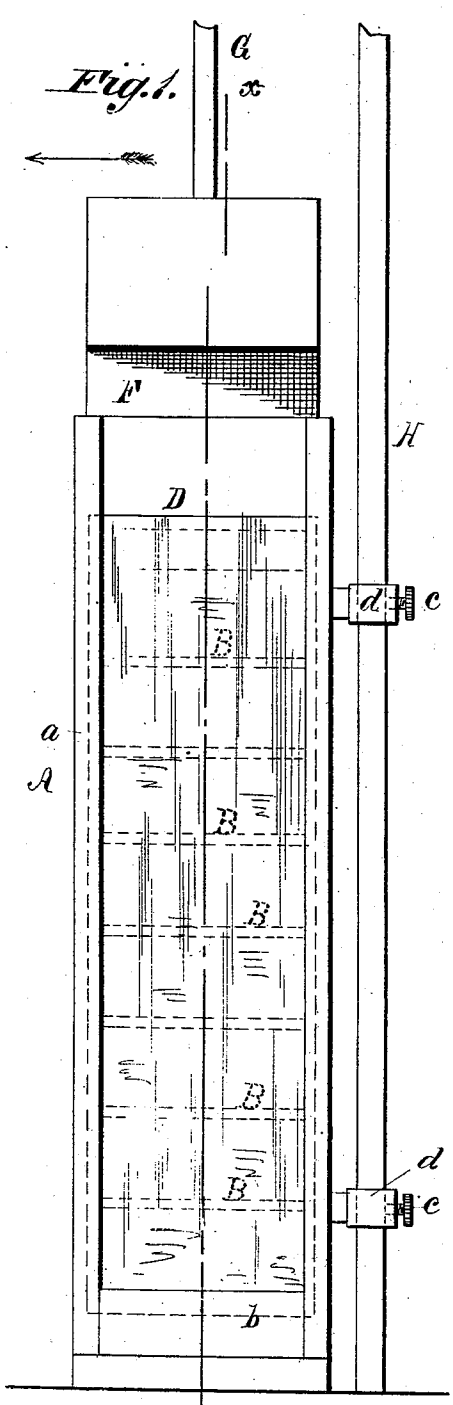
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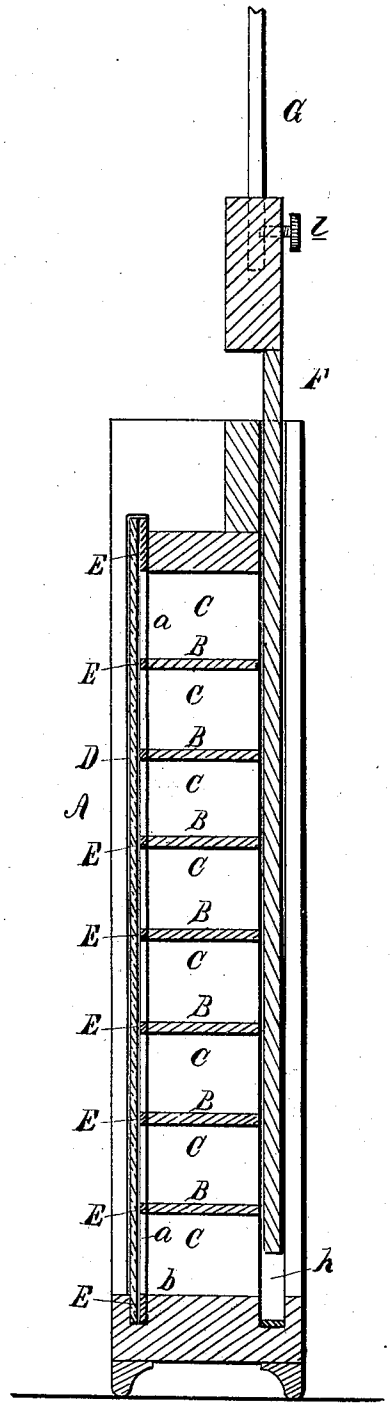
P. NEWELL.

TEST OR THIEF.

No. 243,948. Patented July 5, 1881.

Fig. 1.





WITNESSES: x

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UNITED STATES PATENT OFFICE.

PATRICK NEWELL, OF BRADFORD, PENNSYLVANIA.

TEST OR THIEF.

SPECIFICATION forming part of Letters Patent No. 243,948, dated July 5, 1881.

Application filed December 15, 1880. (Model.)

To all whom it may concern:

Be it known that I, PATRICK NEWELL, of Bradford, in the county of McKean and State of Pennsylvania, have invented a new and Improved Test or Thief, of which the following is a specification.

In tanks in which crude petroleum is stored there is a certain percentage of sediment and water that settles to the bottom, varying in quantity according to the quality of the petroleum. To ascertain this percentage has been heretofore very difficult, and can usually only be learned approximately, owing to the defective apparatus employed and to the great depth of fluid in the tanks (a depth of from twenty-five to thirty feet) through which the apparatus must be operated. In the oil regions the technical name for the apparatus used for this purpose is "thief."

The object of this invention is to provide an improved device whereby the percentage of foreign matters in petroleum-tanks can be more conveniently and accurately determined.

A common method of sampling the contents of oil-tanks is to sink a bottle or tube to obtain a specimen at a given layer or depth; then sink another bottle or tube for another specimen at a different layer or depth. This method is slow and inconvenient.

The present invention consists of a long tubular instrument, so constructed that on being lowered into the oil-tank its interior can be opened to admit of the simultaneous inward flow of specimens of the tank contents at different layers or elevations thereof. After such inflow of the specimens by simply shutting the instrument the specimens are inclosed and held within the instrument in the same relative position in respect to each other as when first admitted. The instrument is then removed from the tank, and the specimens may then be examined while still within the instrument, or may be removed therefrom for examination, as desired.

Figure 1 is a front elevation of the thief. Fig. 2 is a sectional side elevation of the same on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a rectangular box, of wood or any other suitable material, provided with horizontal partitions B, set one above the other, so as to form chambers or compartments C, for more accurate sampling of the different strata of the tank contents. The front edges of the box sides and bottom are grooved, as indicated at *a b*, and a plate, D, of glass is inserted therein to form the front of the said box A, while upon the front edges of the shelves B and top of the box A, and in the groove *b*, strips E, of rubber or other elastic substance, are firmly cemented and afford bearing-surfaces for the glass front D, it being designed that said glass front D shall be so secured in place that there will be no leak about it, and none from one compartment C to another.

In the back of the box A is a slide, F, that is fitted in suitable grooves, *h*, in the box-sides, and extends the whole length of said box A. It is designed that the slide F shall fit so closely in the groove *h* and against the backs of the shelves B that all leaks about it shall be prevented; hence it may be necessary in some instances to cover the rear edges of the shelves B and to line the grooves *h* with some elastic packing substance. This slide F is provided with a removable handle, G, secured thereto by set-screw *l*, by which it may be opened or closed, said handle G being designed to be of sufficient length to reach from the top to the bottom of an oil-tank. To a side of the box A a handle or rod, H, is secured by being held by set-screws *c* in eyes or rings *d*, that project from the said box A. This handle or rod H is for the purpose of introducing and withdrawing the thief into and from an oil-tank.

The thief is operated by lowering it through the fluid to the bottom of the tank with the slide F closed. The slide F is then withdrawn to admit the simultaneous inward flow of samples of the contents of the lower part of the tank at different layers or elevations thereof, and is then immediately closed by means of the handle G. Then the thief is brought to the top of the tank by the rod H, containing a fair sample or section of the contents at the bottom of the tank.

I do not confine myself to the precise construction of the thief as above shown, as it

may be constructed without shelves B, in which case it would take in a column of the contents with the different layers in their natural relative position, and may be modified in other ways without departing from my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a thief, the combination, with the box A and slide F, of the shelves B, substantially as herein shown and described, whereby a series of compartments are formed for sampling the contents of a tank, as set forth.

PATRICK NEWELL.

Witnesses:
JAMES ROBINSON,
J. E. HASKELL.