Nov. 20, 1923. 1,474,807

O. B. YETMAN ET AL.

OIL TESTER

Filed Nov. 23, 1922

Fig. 1.

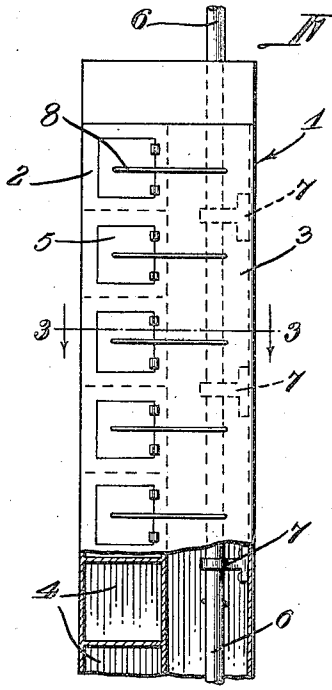


Fig. 2.

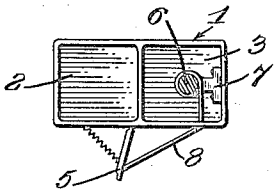
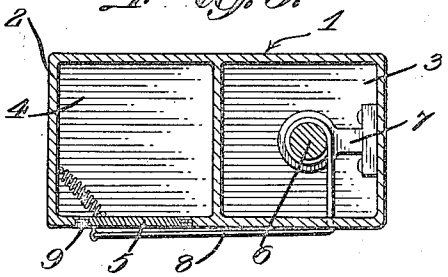


Fig. 3.



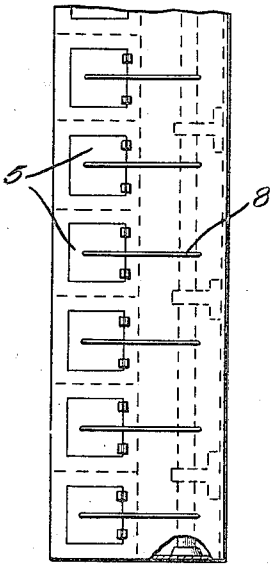
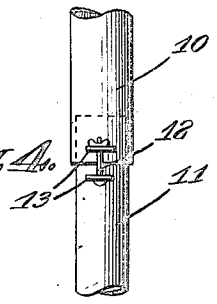


Fig. 4.



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UNITED STATES PATENT OFFICE.

OSCAR B. YETMAN AND JOHN LEISURE, OF COFFEYVILLE, KANSAS.

OIL TESTER.

Application filed November 23, 1922. Serial No. 602,810.

To all whom it may concern:

Be it known that we, OSCAR B. YETMAN and JOHN LEISURE, citizens of the United States, residing at Coffeyville, in the county of Montgomery and State of Kansas, have invented a new and useful Oil Tester, of which the following is a specification.

This invention relates to oil testers such as are used for taking samples of oils from wells or tanks.

The object of the invention is to provide a device of this character so constructed that it may be lowered into a tank to take samples of the oil at varying depths thereof.

Another object is to provide improved means for trapping the oil in devices of this character.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a side elevation partly in section of the tester constituting this invention.

Fig. 2 is a plan view thereof.

Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 1.

Fig. 4 is a detail side elevation showing two of the extension tubes connected.

In the embodiment illustrated, the device constituting this invention comprises a casing 1 having two compartments 2 and 3 arranged side by side and extending throughout the length of the casing. The compartment 2 is divided into a plurality of similar superposed compartments 4, each of which is equipped on its outer face with a spring closed door 5. Each of the compartments 4 is preferably 1″ x 1″ x 1″.

Extending throughout the length of the compartment 3 is a rod 6 mounted to swing in bearings 7, a plurality of which project laterally from one side wall of the compartment 3 as is shown clearly in Fig. 1. This rod 6 is connected with each of the doors 5 by individual cables or ropes 8 so that when the rod 6 is rotated, these ropes will be wound up on it and open the doors simultaneously.

The doors 5 have spring hinges of a strength sufficient to close them when the rod is released and when so closed the compartments 4 will be oiltight, packings 9 being preferably arranged around the openings which the doors close.

In the use of this device, it is lowered into a tank containing oil to be tested until it reaches the bottom, and when so positioned the rod 6 is turned to wind up thereon the ropes 8, thereby simultaneously opening the doors 5 permitting the oil in the tank to enter and fill the compartments 4. The rod is then released and the doors will automatically close and trap the oil to a depth of one inch in each compartment. When the implement is withdrawn from the tank, the specimens of oil trapped in the various compartments may be examined.

A plurality of aluminum tubes 10 and 11 of about ten feet in length, more or less, which are designed to be telescopically engaged and secured together and engaged with the casing 1 to adapt the device to be used in tanks of great depths.

As shown, these tubes 10 and 11 are connected by means of a bolt 12 which extends through apertured lugs 13 projecting from the outer faces of the tubes as is shown clearly in Fig. 4.

The casing 1 is preferably constructed of aluminum and is made about ten feet long, more or less.

We claim:—

1. A device of the class described comprising a casing having a plurality of superposed compartments of uniform sizes and equipped with hingedly mounted oiltight closures, springs for closing and holding said closures in closed position, and means for opening the closures against the tension of the springs.

2. A device of the class described comprising a casing having a plurality of superposed compartments of uniform sizes and equipped with hingedly mounted oiltight closures, springs for closing and holding said closures in closed position, and a rod connected to simultaneously open said closures against the tension of their springs.

3. A device of the class described comprising a casing having a plurality of superposed compartments of uniform sizes and equipped with hingedly mounted oiltight closures, springs for closing and holding said closures in closed position, a rod

arranged in said casing parallel with said compartments, and ropes connecting the individual closures with said rod, the rod being mounted to rotate to wind up the ropes thereon and open the closures against the tension of their springs.

4. A device of the class described comprising a casing provided with two longitudinally extending parallel chambers, one of said chambers being divided horizontally into a plurality of superposed compartments of uniform sizes, each of said compartments having a spring closed door, a rod mounted to turn in the other chamber, and a plurality of cables connecting said rod with said doors.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures.

OSCAR B. YETMAN.
JOHN LEISURE.