

(No Model.)

F. J. SEIDENSTICKER.
OIL LAMP APPLIANCE.

No. 461,370.

Patented Oct. 13, 1891.

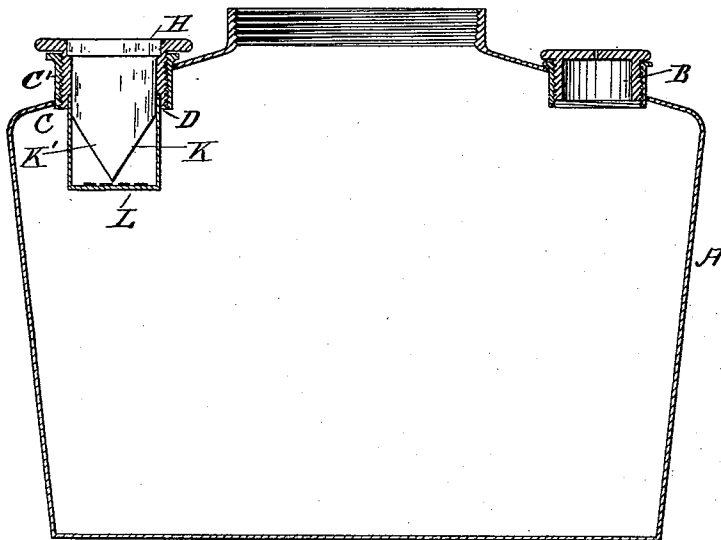


FIG. 1.

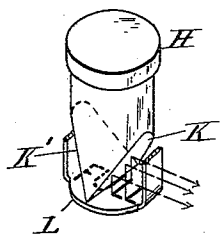


FIG. 2.

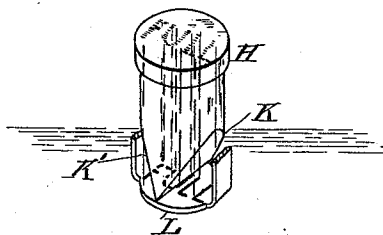


FIG. 3.

WITNESSES.

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FRANK J. SEIDENSTICKER, OF CAMBRIDGE, MASSACHUSETTS.

OIL-LAMP APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 461,370, dated October 13, 1891.

Application filed April 20, 1891. Serial No. 389,689. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. SEIDENSTICKER, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Oil-Lamp Appliances, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to connect with oil-holding vessels—such as lamps, oil-cans, &c., the walls of which are opaque—a device which will show to the user that the said oil-holding vessels are full. This object I attain by the construction shown in the following drawings, in which—

Figure 1 shows a section of the bowl of a lamp with my device attached. Fig. 2 is a view in perspective to illustrate the principle of my device, when the oil is absent. Fig. 3 illustrates its action when the oil is present.

The principle upon which my device acts is this: Rays of light, impinging at certain angles of a polished surface, are totally reflected, although the surface is formed on a perfectly-transparent substance—that is, no light from these rays will pass through the transparent object, and also that if this transparent body is immersed in a transparent fluid then the rays of light will pass through it with but little or no refraction, nothing being lost by reflection. I will now describe my device for utilizing this principle:

A represents the body of the lamp, and B the ordinary filling orifice.

At C, I attach a screw-quill C', adapted to receive a frame D, which is constructed to securely hold in place a piece of glass H. This glass H is solid, and has one or more inclined polished surfaces, as indicated by K K'. Immediately under the glass, and in a nearly-horizontal position, I place a disk L.

Said disk L having upon it some plainly-distinguishable characters, such as "Full," for instance.

The action of the device is as follows: When there is no oil above the disk, (see Fig. 2,) then the reflected light from the characters will be reflected from the surface K in the direction of the arrows—that is, horizontally—and they will not be visible to the person who is looking downward through the glass; but if the disk is covered with oil, as indicated in Fig. 3, then the light reflected from the characters will pass directly upward, and the observer will see them plainly and know that the vessel is full. It will be observed that it is not necessary to have this glass of any particular size and shape, it simply being requisite that a reflecting-surface be so located that it will be immersed in oil when the proper amount is in the vessel.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent, is set forth in the following claim:

In an oil-holding vessel, the combination of a block of transparent material having one or more reflecting inclined surfaces and being so placed in the wall of the oil-holding vessel that when the same is full the inclined surface will be immersed and reflected light will pass through it, with a disk adapted to reflect light, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 17th day of April, A. D. 1891.

FRANK J. SEIDENSTICKER.

Witnesses:

FRANK G. PARKER,
EDWARD S. DAY.