

(No Model.)

T. F. TOWNSEND.

OIL DISTRIBUTER.

No. 389,615.

Patented Sept. 18, 1888.

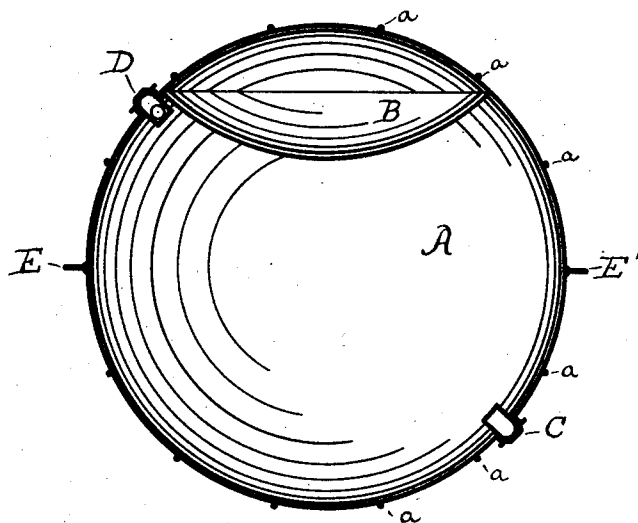


Fig. 1.

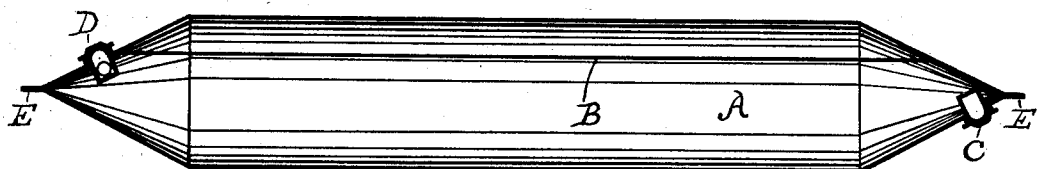


Fig. 2.

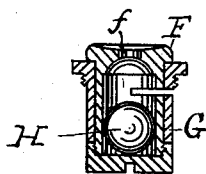


Fig. 3.

WITNESSES:

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*atroc righting*

INVENTOR

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*By Wm. B. Cooper* Att<sup>y</sup>

# UNITED STATES PATENT OFFICE.

THEODORE F. TOWNSEND, OF PHILADELPHIA, PENNSYLVANIA.

## OIL-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 389,615, dated September 18, 1888.

Application filed March 14, 1888. Serial No. 267,168. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE F. TOWNSEND, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a Device for Distributing Oil upon the Surface of Water, of which the following is a specification.

It is well known that if oil is deposited on the surface of water it will distribute itself in the form of a thin film, and it has been found that this operates to reduce the violence of heavy seas. In order, however, to obtain the best results, it is necessary that the oil should be supplied continuously in predetermined quantity, so as to be distributed in an unbroken film and the amount required reduced to a minimum. To accomplish this, I use a floating-chamber having apertures for the ingress of the water and the egress of the oil, which are regulated by valves.

In the accompanying drawings, Figure 1 shows a vertical cross-section of one form of the device, and Fig. 2 that of another. Fig. 3 is a cross-section of the valve, the same letters referring to the same parts.

In Fig. 1 the chamber A is globular, being made of metal and strengthened by the wires *a a a*, soldered on the outside. In order to render it buoyant, a diaphragm, B, is soldered to the interior and forms an air-tight chamber. This chamber may, however, be replaced by any suitable substance which is specifically lighter than water, as cork.

C is an inlet for the water, and D an outlet for the oil. These may be multiplied to any desired extent, as the oil will always flow out at the upper openings by the displacement of the water entering at the lower ones.

Attached to either side of the chamber A are the eyes E and E'. A line is attached to E' when it is desired to place the apparatus in the water, and it may be towed in the wake of the vessel when drifting or anchored to the windward of shipping in harbors when endangered by gales. The openings C and D have a means of regulating their size or of closing them. This may be accomplished in any suitable way, as by one hollow cylinder, F, Fig. 3, rotating within another, G, each having a slot opposite one in the other, as shown,

and in the valve D a ball, H, is placed which will fall into its seat when the apparatus is inverted and close the aperture *f*. This is to prevent the oil from being wasted when the apparatus is being lowered to and raised from the water. When filled with oil, the upper valve is adjusted to permit the oil to escape in any desired quantity, and the lower one is set to admit the water, or one alone is sufficient to control the action. After all the oil has escaped the apparatus may be drawn to the deck by the line attached and refilled, being replaced by another.

When it is impracticable or undesirable to place the apparatus in the water, it may be placed in the bowl of the water-closet or secured to any part of the vessel and used as a drip. In that case it should be suspended by the eye E, so that the valve C will be downward.

I do not claim an oil-distributer consisting of an oil-chamber and a float, the oil-chamber having apertures for the escape of the oil, as I am aware that such a device is already known; but I claim the combination in such a device of regulable apertures for the ingress of the water or the egress of the oil.

I claim as my invention—

1. An oil-distributer consisting of an oil-chamber and a float, the oil-chamber having one or more apertures in the lower portion for the ingress of the water and one or more apertures in the upper portion for the egress of the oil, and a means of predetermining the amount of water admitted or the amount of oil emitted.

2. An oil-distributer consisting of an oil-chamber and a float, the oil-chamber having one or more apertures in the lower portion for the ingress of the water and one or more apertures in the upper portion for the egress of the oil, and a means of automatically opening one or more of the upper apertures when the apparatus is placed in the water and automatically closing one or more of them when it is raised from the water.

THEODORE F. TOWNSEND.

Witnesses:

S. P. GRESHAM,  
L. M. DEY.