(No Model.)

E. D. MOORE.

OIL PROJECTILE AND DISTRIBUTER.

No. 457,554. Patented Aug. 11, 1891.

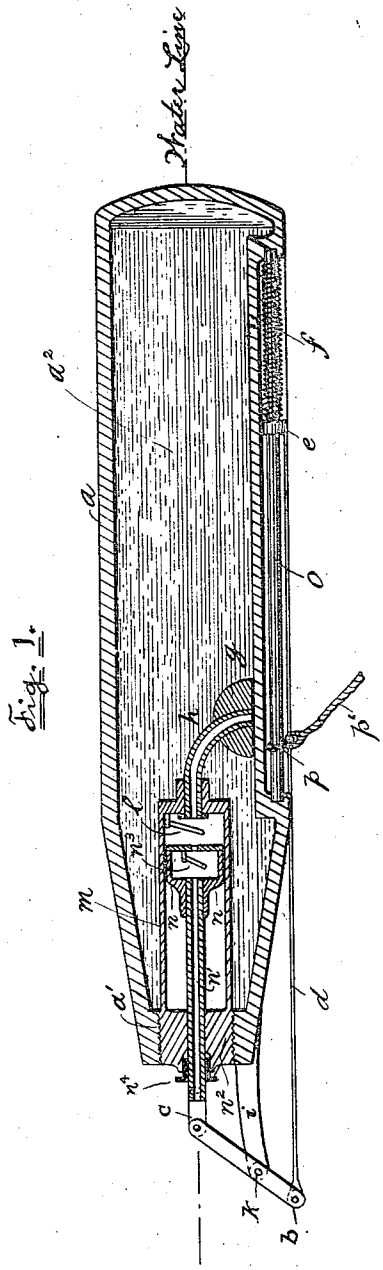


Fig. 1.

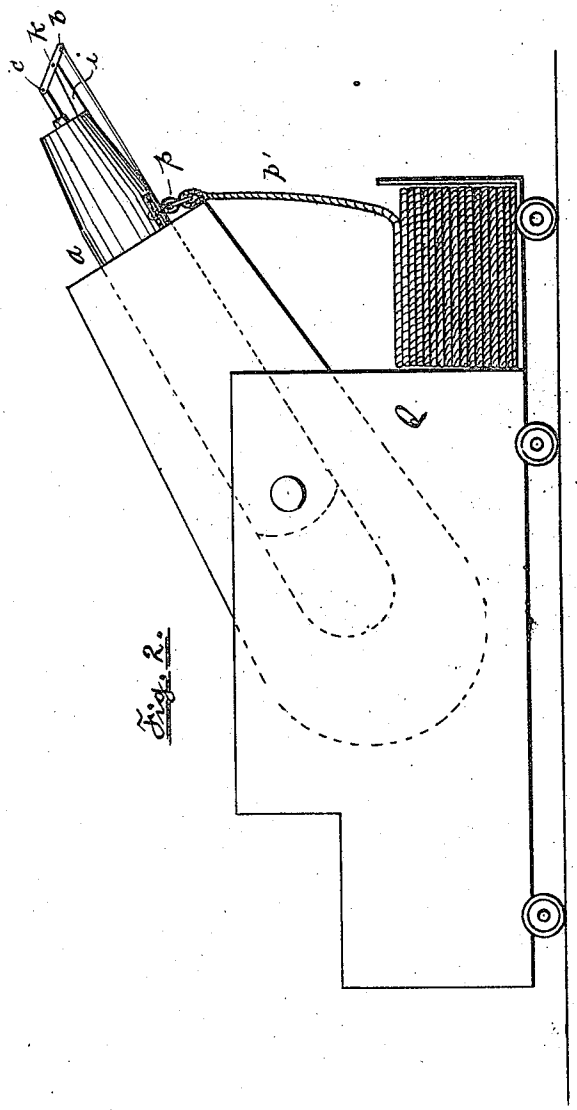


Fig. 2.

Witnesses.
E. L. Carlow
L. M. Coffman

Inventor
Everett D. Moore
By J. Stewart Rusk
His Attorneys.

UNITED STATES PATENT OFFICE.

EVERETT D. MOORE, OF BALTIMORE, MARYLAND, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE AMERICAN OIL PROJECTILE COMPANY, OF SAME PLACE.

OIL PROJECTILE AND DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 457,554, dated August 11, 1891.

Original application filed January 23, 1891, Serial No. 378,752. Divided and this application filed March 11, 1891. Serial No. 384,536. (No model.)

To all whom it may concern:

Be it known that I, EVERETT D. MOORE, of Baltimore, State of Maryland, have invented a new and useful Oil Projectile and Distributer, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to improvements in means or apparatus for saving life and property during storms in harbors, along the coast, or at open sea; and it particularly relates to the discharge of oil into the sea, whereby there is produced a smooth surface which is not broken by the wind, as is usually the case when the surface of the sea is violently acted upon by the wind.

My invention consists of certain features hereinafter described, and pointed out in the claims.

This application is a division of my application for an oil projectile and distributer filed January 23, 1891, Serial No. 378,752, and relates particularly to the construction shown in Figure 5 of the application referred to.

In the drawings, which illustrate my invention, Fig. 1 is a vertical central section through the projectile and distributer. Fig. 2 is a side elevation showing the projectile and distributer in position ready to be projected.

Like letters of reference refer to like parts throughout the drawings.

In order to utilize the well-known property of oil for producing a smooth surface on water which has been broken by the wind, I have constructed an oil projectile and distributer for carrying oil in bulk; and it consists of a shell a, having at one end an opening a', leading into the oil-chamber a^2. Through the opening a' the chamber m is passed into the oil-chamber a^2, and at the end within the chamber a^2 has the suction-pipe h, working on a swivel-joint, said suction-pipe having a weight g on its free end, so as to always keep said end in the oil in case of the projectile turning in the water. The other end n^2 of the chamber m is screw-threaded, so as to fit the threads in the opening a' and thereby make a tight joint. Within the chamber m works the pump-piston n, having attached thereto a hollow piston-rod n', sliding through the stuffing-box n^4, and has secured thereto an arm c, which is pivotally attached to the rocking lever b, swinging on a pivot k, mounted in standards i. From the other end of the lever b a rod d, pivotally mounted upon the said lever, extends rearwardly and is secured to the collar e, sliding on the rod o. Against the collar e a spring f bears, so as to keep the end of the lever to which the rod d is secured in a forward position and the piston n in an inward position. The rings p and the rope p' slide along the rod o, and when the distributer is being drawn through the water bear against, at each pull of the rope p', the collar e, and when the rope is slackened the spring f throws the collar and with it the rod d forward and the piston n inward. The pulling and slacking of the rope actuates through the intervening mechanism the pump, so that the oil is drawn from the chamber a^2 through the suction-pipe h, into the chamber m by the forward movement of the piston n, and as the piston n is returned by the action of the spring f the oil passes through the port in the piston controlled by the valve n^3 and out through the hollow piston-rod to the water. The valve l controls the flow of the oil to the chamber m from the chamber a^2 through the suction-pipe h.

Q represents a mortar or other suitable device, in which the projectile and distributer is placed and discharged therefrom by powder, compressed air, or any suitable means, carrying with it the rope p' and rings p.

I deem it expedient for coast service to make the specific gravity of the device such that it will sink beneath the surface of the water in order to avoid currents. This, however, is immaterial, as I may make it to sink or to float, as may be desirable.

In case it should be impossible to throw the projectile for want of proper facilities the distributer could be carried by a boat as near as possible to the ship and dropped overboard and operated by persons in the boat or at a distance, so that as the surface became smooth by means of the discharged

oil the distressed or rescuing ship could be approached with safety and the people and property transferred to the shore or other ship, so that my invention is not only a projectile and distributer, but also a distributer adapted to discharge oil when being drawn through the water.

I do not wish to confine myself to the exact construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus ascertained the nature and described the construction of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An oil projectile and distributer having an oil-chamber and adapted to be projected to a distance, a piston-chamber within the oil-chamber and connected therewith, and means for actuating the piston to draw the oil into the piston-chamber upon the forward stroke of the piston and upon the return stroke to force the oil through the hollow piston and hollow piston-rod to the water, for the purpose set forth.

2. An oil projectile and distributer adapted to be projected to a distance and having a piston-chamber within the oil-chamber, a connection between the oil-chamber and the piston-chamber working on a swivel-joint, and means for actuating the piston to draw oil into the piston-chamber upon the forward stroke of the piston and upon the return stroke to force the oil through the hollow piston and hollow piston-rod to the water, for the purpose set forth.

3. An oil projectile and distributer adapted to be projected to a distance and having a piston-chamber within the oil-chamber, a valved connection between the oil-chamber and the piston-chamber working on a swivel-joint and having on its free end a weight to keep said end immersed in the oil, and means for actuating the piston to draw oil into the piston-chamber upon the forward stroke of the piston and upon the return stroke to force the oil through the hollow piston and hollow piston-rod to the water, for the purpose set forth.

4. An oil projectile and distributer adapted to be projected to a distance and having a piston-chamber within the oil-chamber, a hollow piston working in said piston-chamber, and a hollow piston-rod connected at one end to the piston and at the other to a rocking lever, said lever being mounted upon a standard or standards extending from the front end of the projectile, the other end of the lever being connected to a rod which extends rearwardly and is connected to a sleeve sliding on a rod to which is attached the rope for actuating the pump from a distance, for the purpose set forth.

5. An oil projectile and distributer adapted to be projected to a distance and having a piston-chamber within the oil-chamber, and a hollow piston-rod connected to a hollow piston and at its other end to a rocking lever, from the opposite end of which extends rearwardly a rod connected to a sleeve, against which a spring bears to force the piston to its inward position, said sleeve sliding on a rod to which is attached the rope for actuating the pump, for the purpose set forth.

In testimony whereof I, EVERETT D. MOORE, have signed my name to this specification, in the presence of two subscribing witnesses, on this 3d day of March, A. D. 1891.

EVERETT D. MOORE.

Witnesses:
R. E. SCALLY,
G. E. PEARDON.