(No Model.)

E. A. HAYES.

OIL BAG FOR DISTRIBUTING OIL ON WATER.

No. 371,194. Patented Oct. 11, 1887.

Fig. 1.

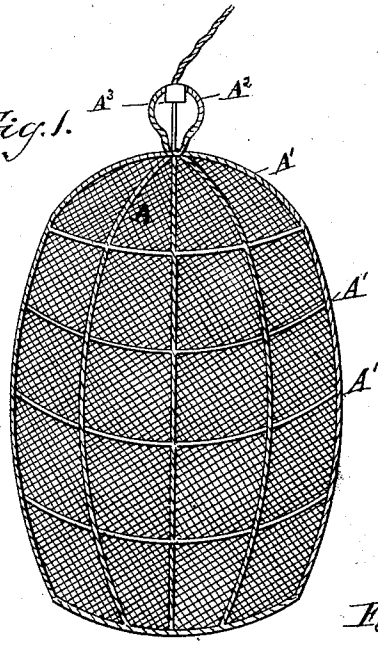


Fig. 2.

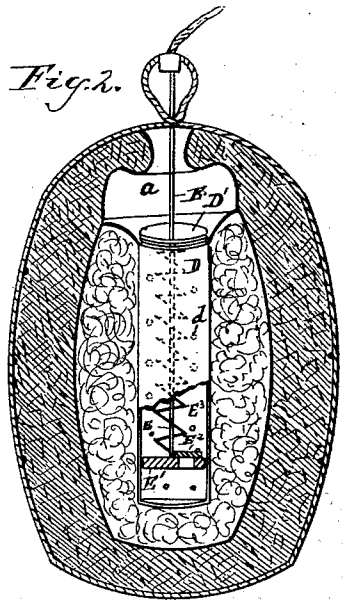


Fig. 4.

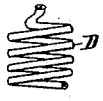
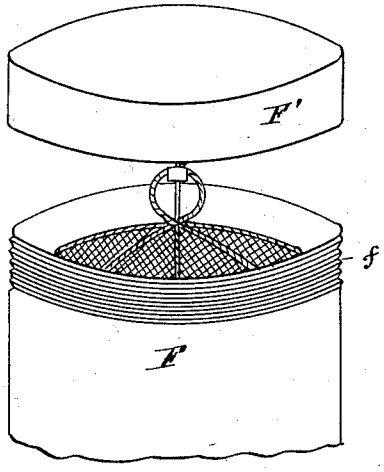


Fig. 3.



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UNITED STATES PATENT OFFICE.

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OIL-BAG FOR DISTRIBUTING OIL ON WATER.

SPECIFICATION forming part of Letters Patent No. 371,194, dated October 11, 1887.

Application filed January 27, 1887. Serial No. 225,624. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. HAYES, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Oil-Bags for Distributing Oil on Water, of which the following is a specification.

My invention relates especially to devices employed for distributing oil on stormy waters in order to prevent the waves from breaking and to cause them to come in a rolling swell, and has for its object the provision of a device portable and simple in construction, cheap in manufacture, always charged ready for use, easy to operate or take care of, and which will be efficient in practical use.

To attain the desired end my invention consists in the construction and arrangement of parts, hereinafter fully set forth.

In the drawings, Figure 1 represents a view of the exterior of my oil bag; Fig. 2, a central vertical section of the same; Fig. 3, a view of my oil-bag packed in an inclosing-can, and Fig. 4 is a view of a modification of the tube contained in my oil-bag.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

Referring to the drawings, D represents a perforated metallic chamber, tube, or case provided with a removable top or cover, D′, which is ordinarily screwed tightly on the same. The tube or chamber D is preferably cylindrical, as shown in Fig. 2, or in modified form may be curved, as shown in Fig. 4, or may, if preferred, be of any other desired shape.

The perforated chamber or case D is placed within a bag, A, the outer covering of which may consist of wide-mesh hemp, and the interior of which is preferably divided into two compartments, the outer one being filled with cork and the inner one with deer's hair or equivalent suitable materials. Although I prefer to use both the cork and deer's hair or equivalents, yet it is obvious that either one may be dispensed with, if desired. In order to strengthen the bag, and also to provide a means of handling the same, the exterior of the bag is provided with binding-ropes A′, which are suitably secured to the oil-bag, and which terminate in a loop, A^2, forming a handle for the same, and also incasing an iron cap, A^3. To the cap A^3, incased in the loop or handle A^2, is attached a rod, E, which passes through the cover D′ of the perforated chamber or tube D, the lower extremity of which is provided with a plunger, E′, which serves, in connection with the valve E^2, to pump the oil (with which the chamber D is filled) and force the same through the perforations *d*, when the rod is pulled in an upward direction, after which the spring E^3 serves to return the plunger E′ to its normal position.

The oil-bag A is ordinarily kept within a (preferably) metallic can, F, provided with a screw-thread, *f*, and a cover, F′, adapted to be screwed on the same in such a manner as to form an air-tight vessel. It will thus be seen that if the can F (containing the bag A) is filled with oil, the bag will absorb the oil, and after the same becomes saturated any evaporation or drying up of the oil may be prevented by the use of the air-tight cover F′. The bag A is thus kept charged and always ready for use, and upon a number of them being removed from the cans in a storm, and after being suitably attached to lines being thrown overboard in the direction most available for their use, the oil will filter out through the hair and cork and will ooze out slowly through the sides of the bag upon the surface of the water. This mode of distributing the oil is simple and effective, and gives the proper quantity of oil constantly to the waves, neither too much or too little, in order to serve the purpose required.

It has been found that when too large a body of oil is put at once on the surface of the water in a storm it is ineffective and entirely useless, as the sea breaks it up into lumps and carries it on the decks or against the sides of the vessel, whereas when the oil is fed out gently and in small quantities the waves do not break, but roll under the surface of the oil and break beyond the same. Thus, when the oil-bags A are suspended from the ship and are tossed about by the water, the oil is gradually automatically pumped out of

the tube or chamber D, which, should occasion require, may be readily recharged by putting the hand in the opening *a* in the bag A and removing the cover D′ and again filling the perforated tube or chamber D.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that I reserve the right to make such changes, and that

What I claim as new, and desire to secure by Letters Patent, is—

1. A buoyant bag, A, adapted to contain oil and to distribute the same upon water, and containing an interior perforated tube or chamber, D, for holding the oil, incased within the same, substantially as described.

2. The combination, with a bag, A, adapted to contain oil and to distribute the same upon water, of a metallic can, F, adapted to contain the same immersed in oil and provided with an air-tight cover, F′, adapted to prevent the oxidation of the oil, substantially as set forth.

3. A bag adapted to contain oil and to distribute the same upon water, and consisting of an interior perforated tube or chamber surrounded by a compartment containing cork or equivalent material, substantially as described.

4. A bag adapted to contain oil and to distribute the same upon water, and consisting of an interior perforated tube or chamber surrounded by compartments containing cork and deer's hair or equivalent materials, as and for the purpose set forth.

5. A bag adapted to contain oil and to distribute the same upon water, and consisting of an interior perforated tube or chamber surrounded by compartments containing cork and deer's hair or equivalent materials, the whole inclosed in a covering of wide-mesh hemp, substantially as specified.

6. A bag, A, adapted to contain oil and to distribute the same upon water, and consisting of an interior perforated tube or chamber, D, filled with oil and surrounded by a compartment filled with suitable materials, substantially as described, within which tube are placed the plunger E′ and valve E^2 or equivalent pumping devices, whereby, when the plunger is suitably attached to a vessel, the oil may be slowly discharged from the chamber D into the outer portion of the bag, and thence upon the water automatically by the action of the waves upon which the bag A floats, as and for the uses and purpose set forth.

7. The combination, with the bag A for containing oil, containing cork and deer's hair, and the perforated tube D, of the binding-ropes A′, substantially as described.

8. The combination, with the bag A for containing oil and provided with an interior perforated tube or chamber, D, of the inclosing binding-ropes A′, placed in net-work form around the exterior of the bag and formed at the top of the same into a loop or handle, A^2, as and for the uses and purpose set forth.

9. In a bag, A, for containing oil, the combination, with the inclosing binding ropes A′, placed upon the exterior of the same and formed at the top of the same into a loop or handle, A^2, and with the perforated tube D, placed within the bag and adapted to hold the oil, of the pumping devices consisting of the cap A^3, attached to the handle A^2, the vertical rod E, plunger E′, and valve E^2, adapted upon manipulation to pump the oil from the perforated tube, substantially as described.

In testimony of the foregoing specification I do hereby sign the same in the city of New York, county and State of New York.

EDWIN A. HAYES.

Witnesses:
LOUIS Z. KINTSLER,
W. H. FLETCHER.