

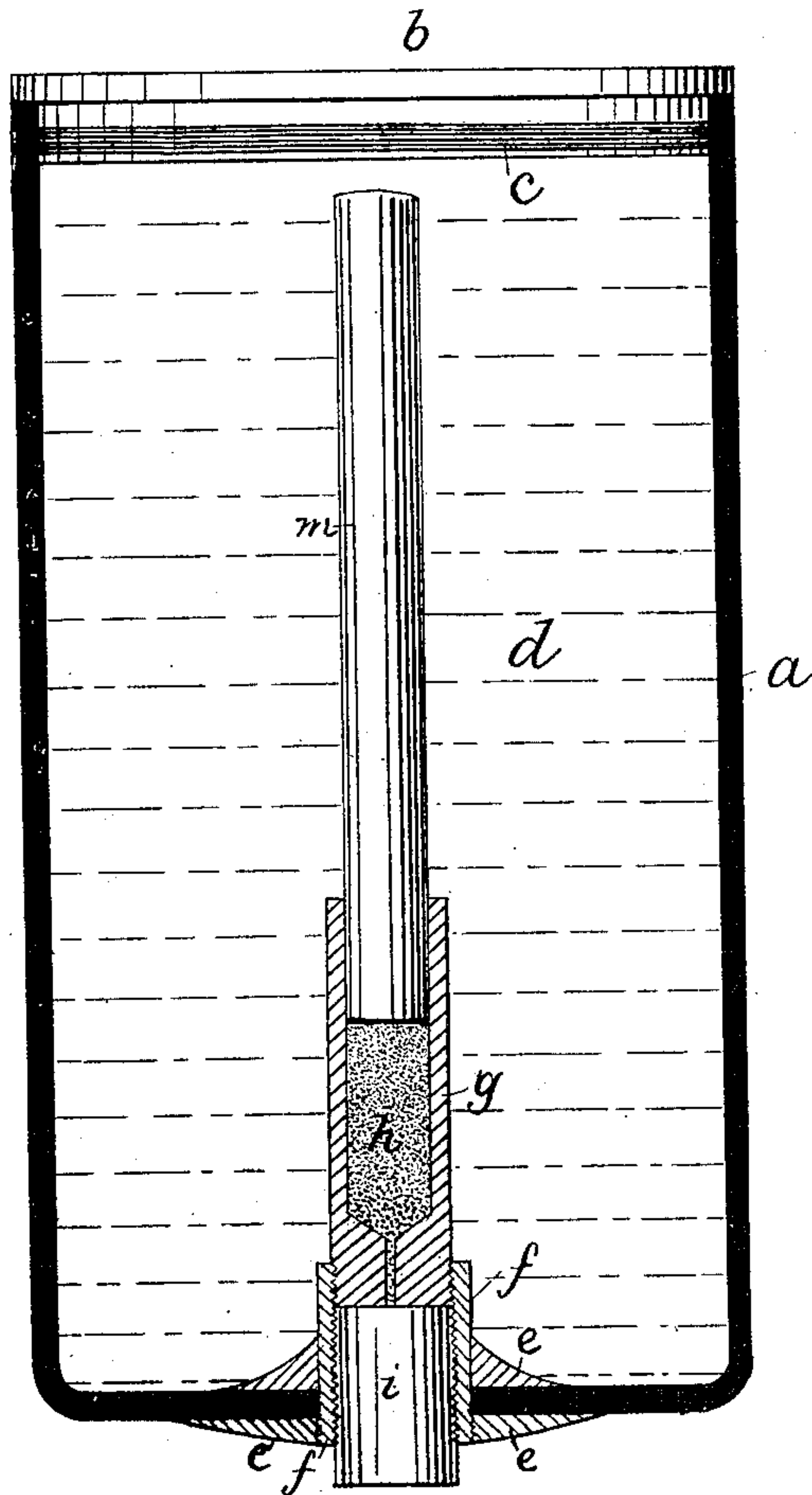
(No Model.)

W. D. BAKER.

PROJECTILE FOR CARRYING AND DISCHARGING OIL.

No. 272,400.

Patented Feb. 20, 1883.



Witnesses,
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UNITED STATES PATENT OFFICE.

WILLIAM D. BAKER, OF ROCKLAND, MASSACHUSETTS.

PROJECTILE FOR CARRYING AND DISCHARGING OIL.

SPECIFICATION forming part of Letters Patent No. 272,400, dated February 20, 1883.

Application filed March 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. BAKER, of Rockland, county of Plymouth, State of Massachusetts, have invented an Improvement in Oil-Discharging Projectiles, of which the following description, in connection with the accompanying drawing, is a specification.

My invention relates to a projectile for throwing and discharging a body of liquid at any desired point, it being intended to discharge a mass of oil upon the surface of the water near a vessel in distress, in order to thereby reduce the violence of the waves, and thus make it easier to render assistance to the said vessel and reduce the liability of its going to pieces.

This invention consists in a shell or receptacle of suitable impervious material—herein shown as of paper—having at one end a removable cover and being re-enforced or strengthened at its other end, as by metal washers, which are adapted to sustain a suitable metallic chamber for a small charge of powder and the usual time-fuse, by which the said powder is ignited at the proper time. A cover-detaching device is forced by the said powder in exploding against the cover, removing it from the shell, and thus permitting the liquid contents of the shell to escape without rupturing the shell.

The drawing shows in longitudinal section a projectile embodying my invention.

The main shell or case *a* is made of tough impervious material—such as will cause no serious damage upon striking an object, tough paper varnished or otherwise rendered impervious being suitable for this purpose. In order to enable the contents of the shell to be discharged without actually rupturing it, the said shell is provided with a tight-fitting cover, *b*, provided with suitable packing, *c*, so as to retain the liquid contents *d* of the shell, the said cover requiring a considerable force to remove it, so that it will not become accidentally detached before the proper time. The base of the shell, which receives the force of the explosion by which the shell is thrown, is provided with metallic strengthening-pieces *e*, in which a nipple, *f*, is held for the purpose of sustaining a small chamber, *g*, containing the charge of powder *h*, by which the shell is to be opened and its contents discharged, the said powder being ignited at the proper time by the usual time-fuse, *i*, also held in the nipple *f*, it being ignited in the usual manner by the charge that throws the shell.

A cover-detaching device, *m*, shown as a rod or plunger fitted in the end of the powder-chamber *g*, has its other end just beneath the cover *b* of the shell, so that when the said powder is exploded the said rod is driven against the said cover and forcibly detaches it from the shell, thus permitting the contents *d* to escape.

The herein-described projectile is to be used at life-saving stations and similar places, it being intended to be thrown and opened as near as possible to a stranded vessel, in order to spread the oil upon the surface of the water, and thus reduce the violence of the waves.

The powder-chamber *g* is intended to be of sufficient strength to resist rupture when the powder is exploded, and the entire projectile, its cover, and the cover-detaching device are of such material and operated with such force as to cause no serious damage in case they should strike the vessel, or a boat, or the occupants thereof.

It will be understood that by the employment of the detaching device *m* the force of the explosion in the chamber *g* is transmitted directly to the cover, and very little, if any, effect is produced upon the contents of the shell, which merely pour out after the cover has been forcibly detached.

I claim—

1. The shell provided with a removable cover, combined with strengthening-pieces at the base of the shell, an independent internal chamber of smaller diameter than the said shell supported on the strengthened base thereof, the said chamber containing an explosive material, by means of which the said cover may be detached, substantially as described.

2. The shell for containing oil, its removable packed cover, and an independent internal chamber, of smaller diameter than the interior of the said shell, for explosive material, combined with the cover-detaching device operated by the said explosive material, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM D. BAKER.

Witnesses:

WILLIAM DOUGLAS,
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