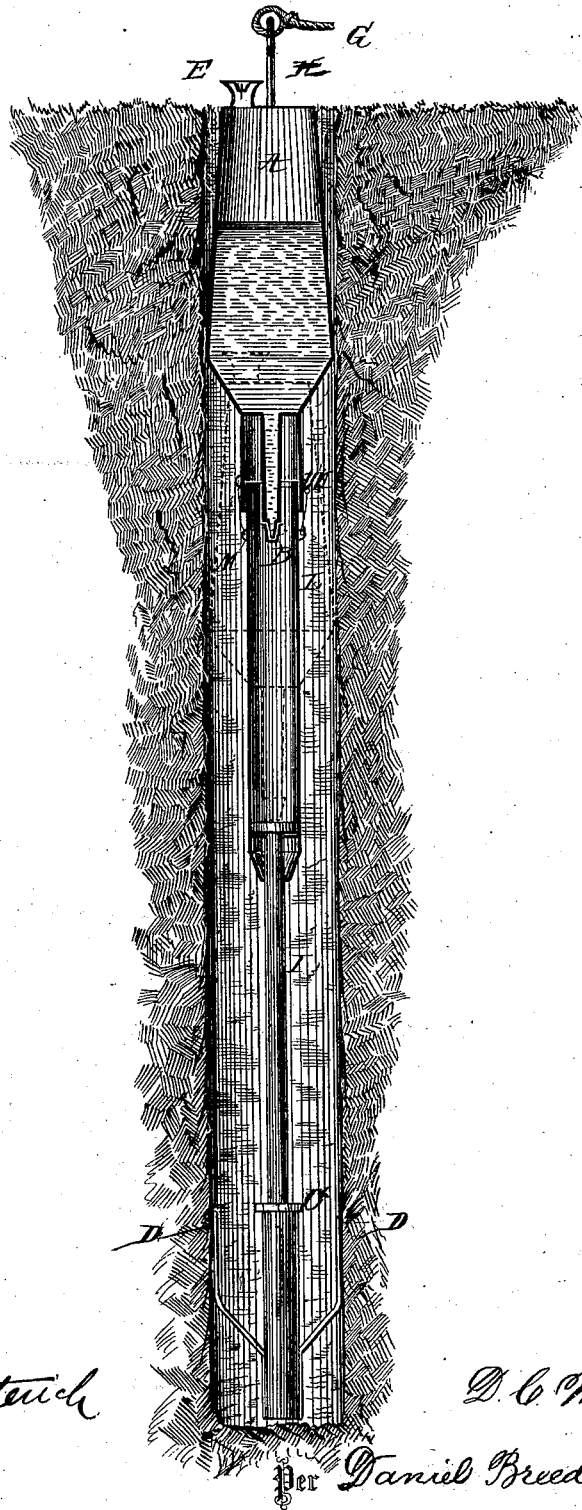


D. C. McINTIRE.
TORPEDOES FOR OIL-WELLS.

No. 195,147.

Patented Sept. 11, 1877.



Witnesses:
Wm. G. Ditcher
W. R. Lowe

Inventor:
D. C. McIntire

Per *Daniel Breed* Attorney

UNITED STATES PATENT OFFICE.

DEWITT C. MCINTIRE, OF ELK CITY, PENNSYLVANIA.

IMPROVEMENT IN TORPEDOES FOR OIL-WELLS.

Specification forming part of Letters Patent No. **195,147**, dated September 11, 1877; application filed August 10, 1877.

To all whom it may concern:

Be it known that I, DEWITT C. MCINTIRE, of Elk City, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Torpedo-Shell; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention consists of certain improvements in torpedoes for oil-wells, which will be fully understood by the following description.

The accompanying drawing is a view of my improved torpedo in the bottom of an oil-well, which is often twelve hundred feet deep.

The shell of the torpedo is represented at A, and has a bail, H, to which a line, G, is fastened. This shell is to be filled with glycerine, which is poured into the tube E. At the lower end of the shell is a gun tube or nipple, armed with a percussion-cap, B, which strikes the head of the sliding rod I when the torpedo is dropped down into the well or hole, and its lower end strikes the bottom of the hole or well.

The anchorage C is provided with guards or braces D, which keep the shell in the center of the hole or well.

Below the shell is a removable tube, L, which gives access to the nipple for putting on the percussion-cap.

Operation: The percussion-cap B is put upon the nipple, and the tube L attached to the lower end of the shell by wires in the small ears M, and then the torpedo is inserted into the top of the hole, and the shell filled before it enters the ground. Now, the torpedo is lowered, by means of line G, until the anchorage rests on the bottom of the hole. The shell is then suddenly dropped, and the cap B, striking the head of rod I, explodes both the cap and the glycerine.

Thus my torpedo is self-exploding, and also explodes from the bottom, affording two advantages: First, no iron or other weights are required, which would obstruct the hole; and, secondly, it will operate with a small amount of glycerine.

If the cap should fail to explode, the torpedo may be drawn up by the line and another cap put on the nipple without any danger.

It may be mentioned that this torpedo may be exploded under water or oil, and therefore it is not necessary to pump out either of these fluids in order to use my torpedo.

Having described my invention, I claim—

In a torpedo-shell, the sliding rod I, in combination with the shell, capped at its lower end, and the removable tube L, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DEWITT CLINTON MCINTIRE.

Witnesses:

DAVID M. SAMPLE,

DANL. E. BRENEMAN.