A. P. SHEARMAN.

Torpedo for Oil-Wells.

No. 219,880. Patented Sept. 23, 1879.

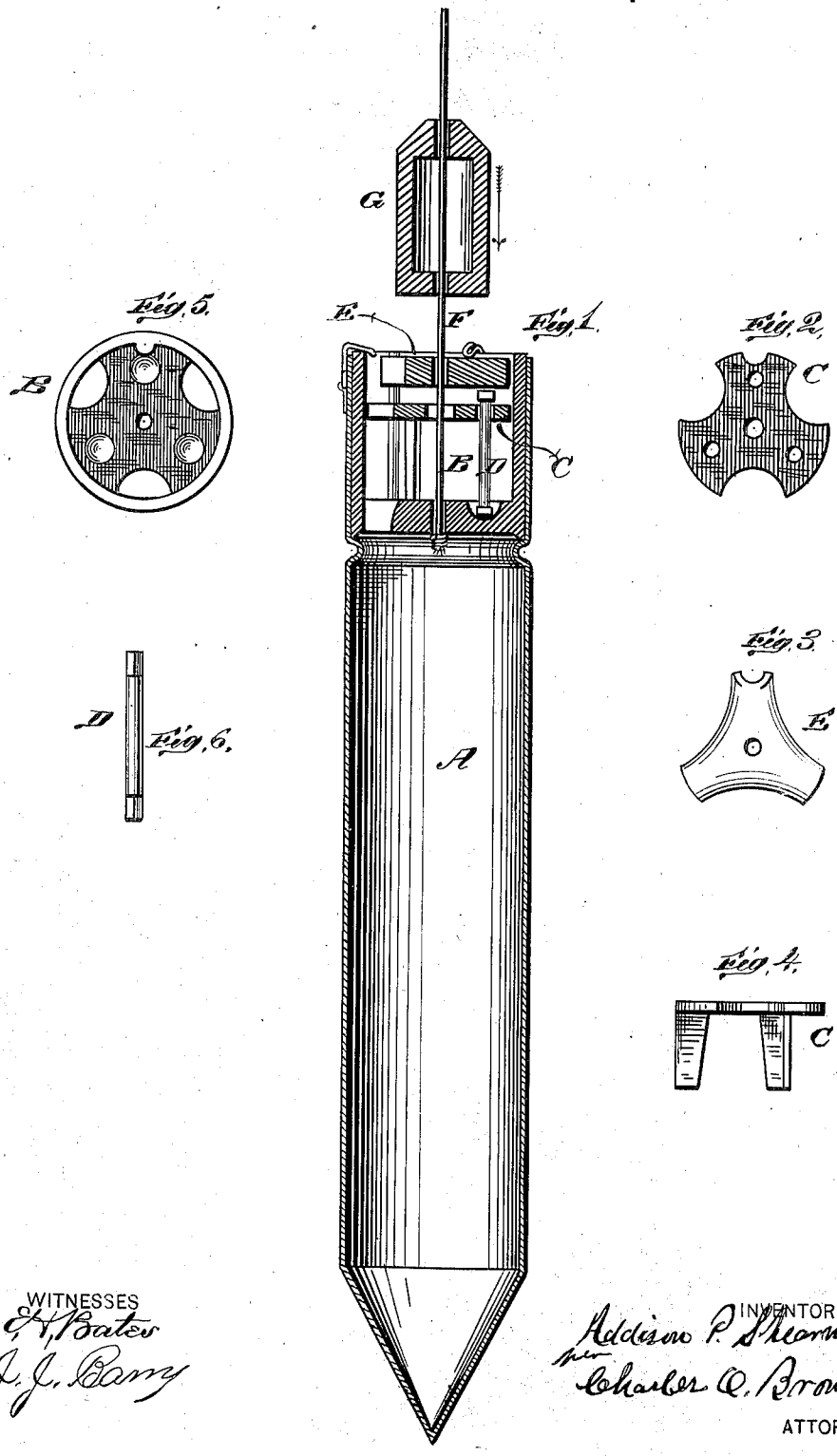


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

WITNESSES

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IMPROVEMENT IN TORPEDOES FOR OIL-WELLS.

Specification forming part of Letters Patent No. **219,880**, dated Sepember 23, 1879; application filed August 28, 1879.

To all whom it may concern:

Be it known that I, ADDISON P. SHEARMAN, of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Blasters or Blasting; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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 letters of reference marked thereon, which form a part of this specification.

The invention described below relates to blasting in earth, ore, slate, rock, mineral, or any substance known to nature by and with the use of powder, nitro-glycerine, dynamite, or any other explosive material, inclosed in a case and exploded in the manner set forth in this specification.

This blaster is made as follows, and, as shown in the accompanying drawings, Figure 1 is a vertical section. Fig. 2 is a top view of the case B with the parts removed. Figs. 3, 4, 5, and 6 are detail views.

A represents a case, which is made of metal, wood, or any other suitable material; also made of any size or dimensions desired, and which is closed at the bottom and opened at the top. Said case is to contain the exploding material. Inserted within the top of this case is a second case, B, of only a few inches in length, and held within case A by means of hooks fastened to the outside of case A and hooked over the top of case B.

Case B has a perforated bottom. Within this second case stands an iron stool, C, with a perforated top. Through the top of this stool pass three wires, D, one end of which rests in the beveled holes bored partly through the bottom of case B, and projecting above the top of the iron stool C, which is used merely to hold the wires in a perpendicular position. Affixed to each end of these wires D is a percussion-cap. Resting on the top of these wires D, but not affixed thereto, is a movable iron guard or plate, E, also perforated. Through the center of this guard E, the center of the top of the stool C, and the center of the bottom of case B, is bored a hole. Passing the end of a wire or rope, F, through these holes, and making it fast to the bottom of case B, the entire blaster is lowered into any excavation or hole to any depth required. A hollow weight, G, made of metal, of any weight required, is then affixed to the line and dropped. Following the line down, it strikes the guard-plate E, transmitting the force of the blow to the caps on each end of wires D, exploding them, which, in turn, explodes the glycerine, (or whatever explosive is used,) and the blast is accomplished.

The superiority of this blaster over other kinds is the ease and safety with which it is operated; also, ease in recapping. Should the first caps not go, all that is required is to raise it to the surface, withdraw the wires, place new caps on them, and return. Thus it is not necessary to empty out the explosive, and become liable to the danger attending that operation.

What I claim is—

The combination, with the body of a blaster or torpedo, of an inside case, B, held to the body by means of hooks, with three perpendicular wires, D, movable and adjustable, with a percussion-cap affixed to each end, one end resting upon a solid metallic base, said wires supported in a perpendicular position by a guard, C, a movable plate, E, resting on the top of the wires, which receives the blow from the weight to explode the fulminate, substantially as and for the purpose specified.

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

ADDISON P. SHEARMAN.

Witnesses:

GEORGE W. NEFF,

ALFRED HOWELL.