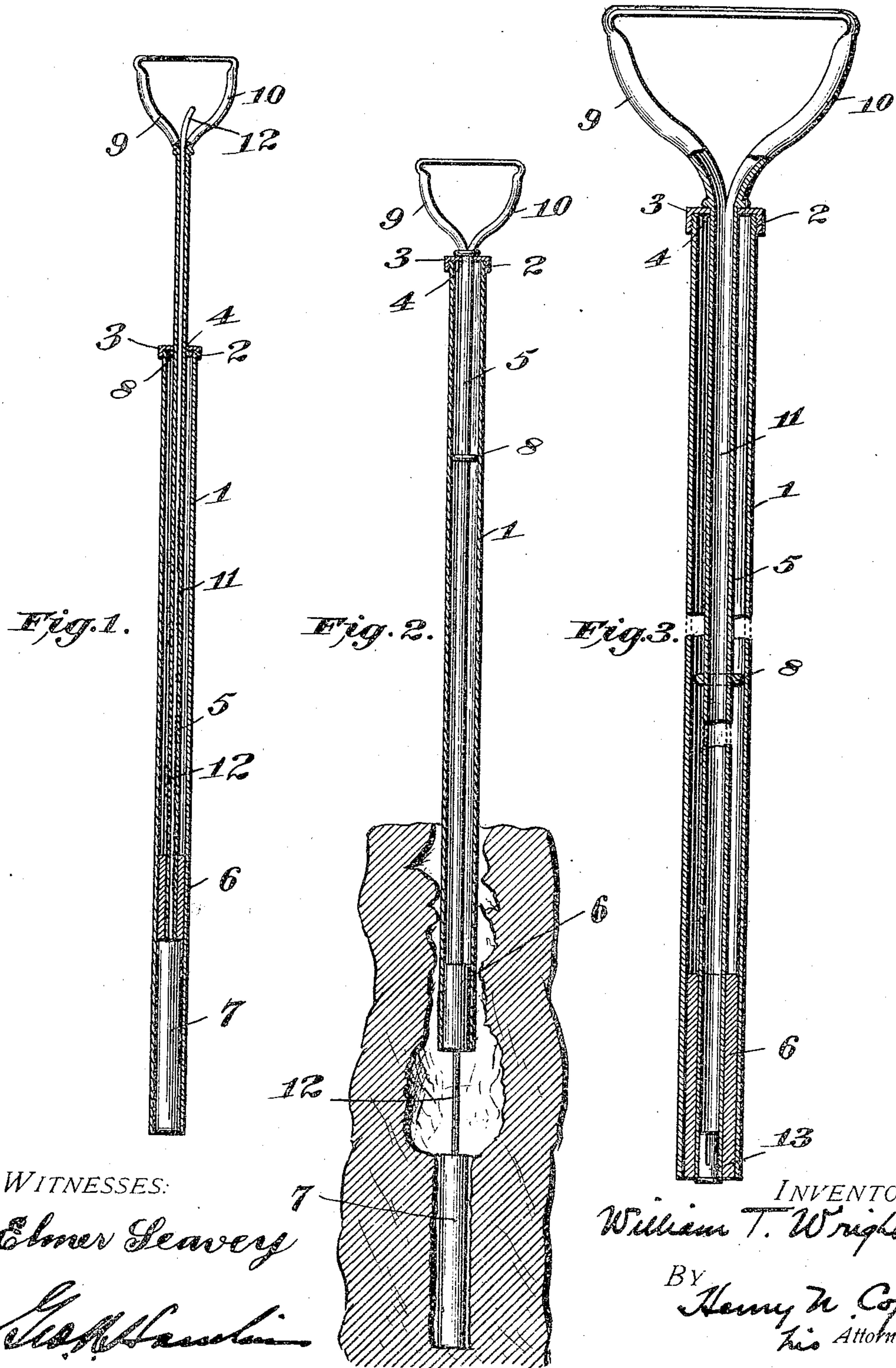


No. 780,467.

PATENTED JAN. 17, 1905.

W. T. WRIGHT.
BLAST HOLE LOADER.
APPLICATION FILED MAR. 30, 1904.



UNITED STATES PATENT OFFICE.

WILLIAM T. WRIGHT, OF BISBEE, ARIZONA TERRITORY.

BLAST-HOLE LOADER.

SPECIFICATION forming part of Letters Patent No. 780,467, dated January 17, 1905.

Application filed March 30, 1904. Serial No. 200,834.

To all whom it may concern:

Be it known that I, WILLIAM T. WRIGHT, a citizen of the United States, residing at Bisbee, county of Cochise, and Territory of Arizona, have invented certain new and useful Improvements in Blast-Hole Loaders, of which the following is a specification.

This invention relates to blast-hole loaders, and more especially to that class of loaders which are adapted to load dynamite cartridges, although the device may be used for loading giant-powder into blast-holes or for loading black powder.

The object of the invention is the provision of means for limiting the movement of the plunger in both directions.

A still further object consists in providing the plunger with an elongated aperture for the reception of the fuse.

The invention consists in the novel features and combination of parts, which will be more fully hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, Figure 1 represents a longitudinal section of the device with the cartridge in position for loading. Fig. 2 is a similar view of the device inserted in a blast-hole and the cartridge displaced by the plunger and showing the tube partially removed. Fig. 3 is a longitudinal section of the device, omitting the cartridge and showing the dirt-cap in place.

Referring more especially to the drawings, 1 represents a tube of any desired length or size, provided with screw-threads 2 at its upper end, which are adapted to be engaged by a cap 3, having an aperture 4. Slidably mounted within the tube 1 is a plunger-rod 5, having on its lower end a head 6 of slightly smaller diameter than the tube 1, which head is adapted to bear upon the top of the cartridge 7. This plunger-rod 5 is adapted to slide through the aperture 4 of the cap 3. Suitably secured at the proper distance from the top of the plunger-rod 5 is an annular shoulder 8, adapted to contact with the cap 3 to limit the upward movement of the plunger-rod. At the top of the rod a similar shoulder is secured thereto to limit the downward movement of the rod. At this point the plunger-rod is

split in half, forming arms 9 10, which diverge for a predetermined distance and are then bent at an angle and secured together by any suitable means. This forms the handle of the device. Centrally through the plunger-rod 5 is an aperture 11, adapted to receive the fuse 12, which is secured to the cartridge 7, and at the end of said central aperture a cap 13 is inserted to prevent the access of dirt or other foreign substance when the device is not in use.

In operation the cap 13 is removed, and the fuse of the cartridge is inserted through the central aperture of the plunger-tube until it projects beyond the upper end thereof, and then the plunger is withdrawn and the cartridge forced into the tube 1 until the shoulder 8 comes in contact with the cap 3 or until the lower end of the cartridge is flush with the lower end of the tube 1. The device is now inserted in the hole and the plunger forced downward and held in its lowermost position and the tube 1 withdrawn until the cartridge is wholly exposed to the sides of the blast-hole. The entire device will then be withdrawn, as shown, and the cartridge will be left in the blast-hole, and the fuse will project from the upper end thereof. If it is desirable at this point, the tube 1 may be removed and the fuse inserted in the aperture, and the device may be used to tamp sand on top of the cartridge, the fuse working up and down within the central aperture of the plunger.

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

1. A device of the class described comprising a cartridge-receptacle, and a plunger working within said receptacle provided with means for holding a fuse.

2. A device of the class described comprising a cartridge-receptacle, a plunger working within said receptacle, and a fuse-receptacle within said plunger.

3. A device of the class described comprising a cartridge-receptacle, a plunger working within said receptacle, a head carried by said plunger, and means for limiting the movement of said head.

4. A device of the class described comprising a cartridge-receptacle, and a tubular plunger free to reciprocate within said cartridge-receptacle and adapted to hold a fuse.
- 5 5. A device of the class described comprising a cartridge-receptacle, a tubular plunger free to reciprocate within said receptacle adapted to hold a fuse, and means for limiting the movement of said plunger.
- 10 6. A device of the class described comprising a cartridge-receptacle, a plunger adapted to hold a fuse reciprocally mounted within said receptacle, and means for limiting the movement of said plunger.
- 15 7. A device of the class described comprising a cartridge-tube, a tube within said cartridge-tube, a head on said inner tube, and a handle formed of a continuation of said inner tube.
- 20 8. A device of the class described comprising a cartridge-tube, a plunger-tube within said cartridge-tube adapted to hold a fuse, a cap on said cartridge-tube, and a shoulder on said plunger-tube adapted to contact with said cap to limit the movement of said plunger-tube. 25
9. A device of the class described comprising a cartridge-tube, a plunger-tube within said cartridge-tube, and independent means for closing the end of said plunger-tube. 30
10. A device of the class described comprising a cartridge-tube, a plunger-head operating within said cartridge-tube, a plunger extending through said head and provided with means for holding a fuse, and shoulders on said plunger adapted to limit the movement of said plunger. 35
- In testimony whereof I hereunto affix my signature in presence of two witnesses.
- WILLIAM T. WRIGHT.
- Witnesses:
GEORGE J. McCABE,
S. W. CLAWSON.