

(No Model.)

M. L. FINLEY.
TIMBER BLASTING PLUG.

No. 469,297.

Patented Feb. 23, 1892.

Fig. 1.

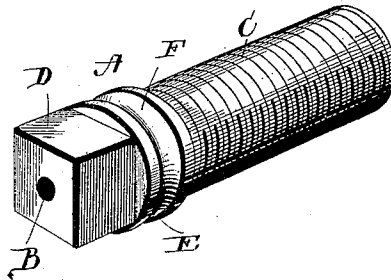
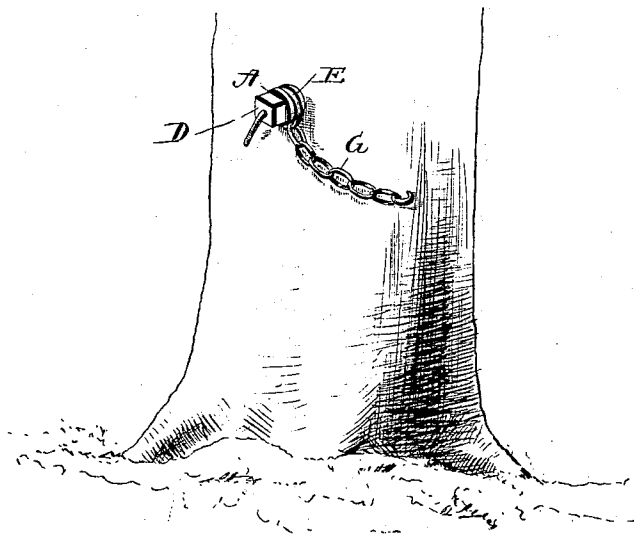


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MARTIN L. FINLEY, OF SMITH CENTRE, KANSAS.

TIMBER-BLASTING PLUG.

SPECIFICATION forming part of Letters Patent No. 469,297, dated February 23, 1892.

Application filed September 10, 1890. Serial No. 364,530. (No model.)

To all whom it may concern:

Be it known that I, MARTIN L. FINLEY, a citizen of the United States, residing at Smith Centre, in the county of Smith and State of Kansas, have invented certain new and useful Improvements in Timber-Blasting Plugs; and I do declare the following to be a full, clear, and exact description of the invention, such as 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

This invention relates to certain new and useful improvements in blasting appliances; and it has for its more immediate object to improve upon and cheapen the construction and to render more efficient in operation that class of blasting-plugs which are used in blasting trees, stumps, logs, and other timber.

To this end and to such others as the invention may pertain the same consists in the novel features of construction hereinafter described, whereby the plug may be readily inserted and secured in place and whereby provision is had for admitting the fuse to the blasting charge and retaining the plug when the blast is fired.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, and in which—

Figure 1 is a perspective view of a blasting-plug constructed in accordance with my invention. Fig. 2 is a like view of a portion of a tree with the plug shown as in actual use.

Reference now being had to the details of the drawings by letter, A represents the plug, which is made, preferably, of cast metal and is provided with a central longitudinal opening B for the reception of the fuse.

The body portion C of the plug is provided with an external screw-thread, and the enlarged outer end of the plug is preferably rectangular, as shown at D, to permit the plug to be readily inserted by the use of a suitable wrench having an opening adapted to be fitted over said rectangular portion.

Between the rectangular end portion D and

the screw-threaded body C of the plug an enlarged portion E, having a peripheral groove F, is provided, within which groove is tied or otherwise secured one end of the retaining cord or chain G, the opposite end of which cord it is designed to secure at some fixed point adjacent to the blast to prevent the plug from being carried to a great distance by the force of the blast.

The use of the plug is apparent. A hole having been bored into the tree or other timber to be blasted, the hole is charged with powder or other explosive substance in the usual manner of charging blasts, and a fuse having been passed through the opening in the plug, the plug is inserted by means of a wrench, and when it has been securely turned into place the free end of the retaining cord or chain is secured either to a staple driven into the tree at a short distance from the blasting-aperture or to some other fixed point. When the blast has been fired, the plug will thus be prevented from being carried to a distant point and possibly lost, and may thus be at once recovered and again used.

It is deemed important that the entire device be formed in one piece, so that there is less danger of loss of parts in firing the blast, and it is also deemed important that the plug be provided with a central longitudinal passage extending entirely through it, whereby I am enabled to employ a fuse instead of a cap, and also that the plug have an enlarged portion E between its screw-threaded portion and head, serving to limit the entrance of the plug into the tree and to prevent the injury of the threads of the plug or the chain or cord by the wrench.

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

1. As an improved article of manufacture, a blasting-plug provided throughout its entire length with a central opening of sufficient size to permit the passage of a blasting-fuse, the body portion of the plug being externally screw-threaded and its outer end enlarged and rectangular in cross-section, with an annular groove formed adjacent to the end, and a chain having one of its ends secured within the groove and its free end adapted

to be secured to some fixed object, substantially as described, and for the purpose specified.

2. The blasting-plug herein described, of a
5 single piece having an externally-threaded body, a polygonal outer end or head, and an enlarged annular portion between said head and the screw-threads, with an annular groove in said enlarged portion and having
10 an opening extending through the plug from

end to end and through the head for the reception of a fuse, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN L. FINLEY.

Witnesses:

D. G. SUTHERLAND,
J. D. MOSSMAN.