

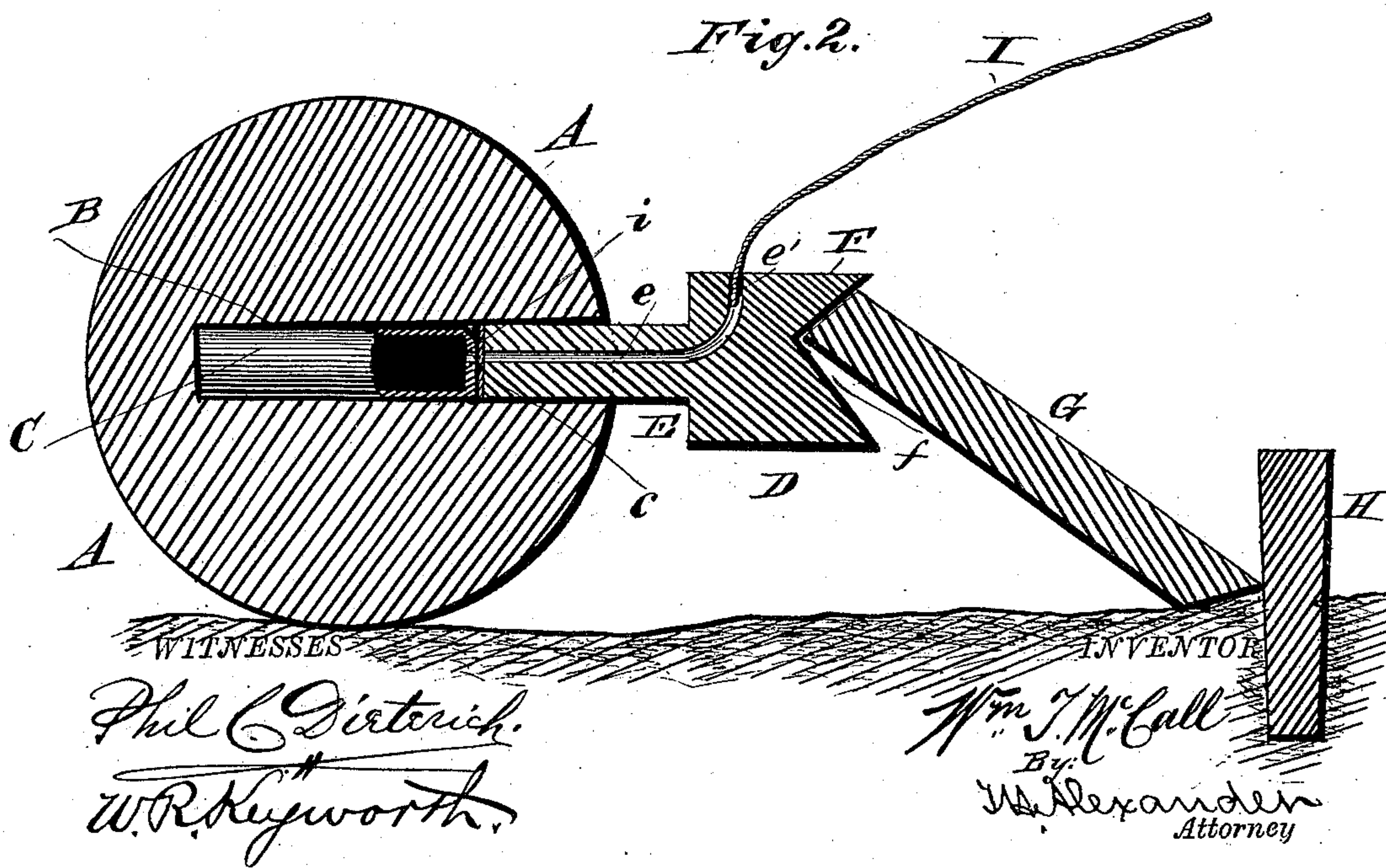
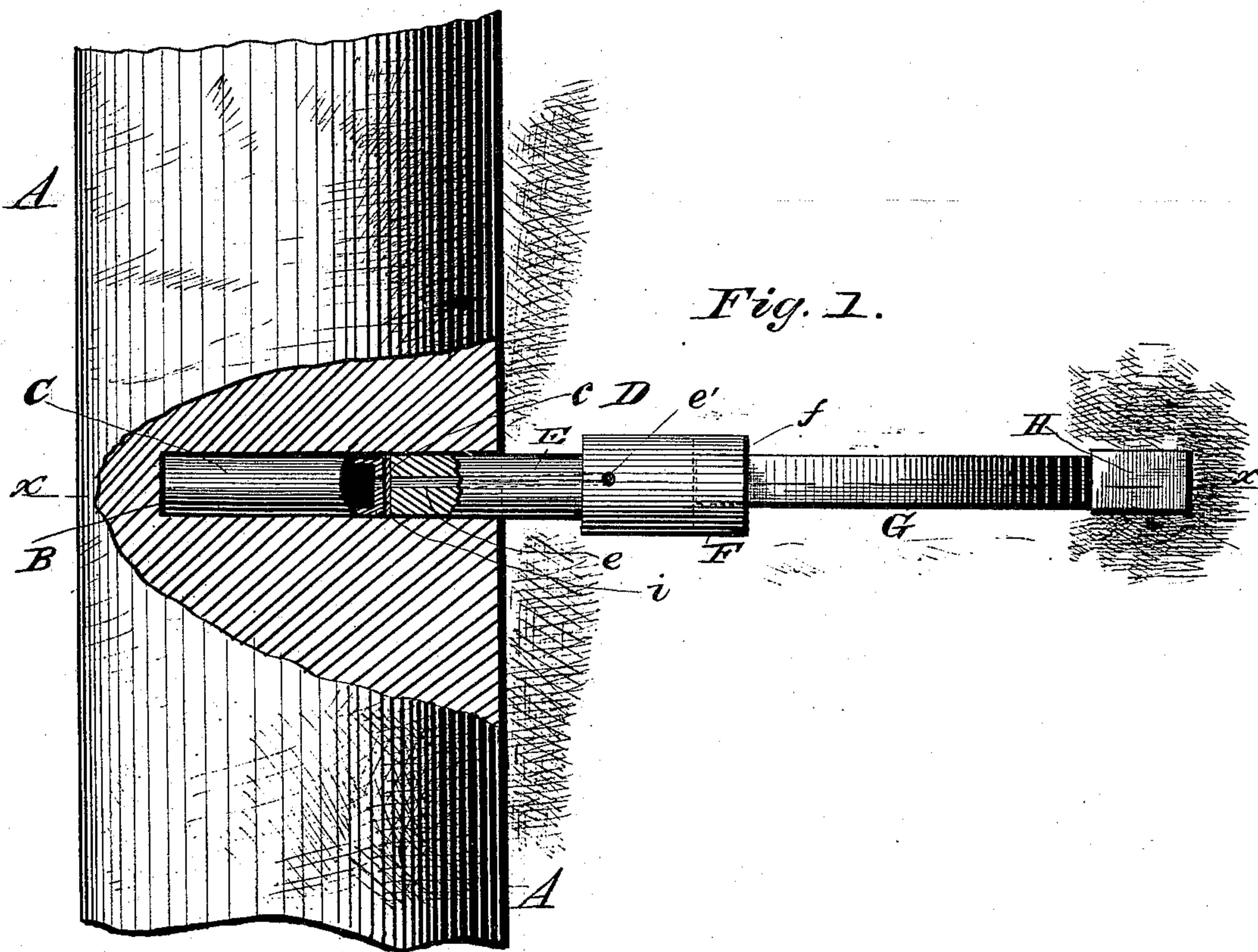
(No Model.)

W. T. McCALL.

BLASTING PLUG.

No. 318,771.

Patented May 26, 1885.



UNITED STATES PATENT OFFICE.

WILLIAM T. McCALL, OF ST. CLAIR, ALABAMA.

BLASTING-PLUG.

SPECIFICATION forming part of Letters Patent No. 318,771, dated May 26, 1885.

Application filed March 23, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. McCALL, of St. Clair P. O., in the county of Lowndes and State of Alabama, have invented certain new and useful Improvements in Blasting Timber; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a plan view, partly in section, of my improved means for splitting logs. Fig. 2 is a transverse vertical section of the same on line *x x*, Fig. 1.

The invention relates to improved means for splitting logs by the aid of gunpowder or other explosive; and it consists in the construction and novel arrangement of parts hereinafter described, and pointed out in the appended claim.

The invention is particularly applicable to long thick logs, such as sections of a tree-trunk from two to three feet in diameter and from twenty to twenty-five feet in length.

Referring to the accompanying drawings by letter, A designates the section of a tree-trunk about twenty-two feet long and about two and one-half feet in diameter.

B is a canal, preferably of circular section, made on a radial line of the log at about the central point of its length. The canal B penetrates to a proper distance on the opposite side of the axis of the log.

C is a cartridge filled with gunpowder or other proper explosive, and made to fit snugly in the canal B. The cartridge is of suitable length to lie, when inserted to the bottom of the canal, with its center in the axial line of the log.

c is a central opening through the outer end of the cartridge-casing.

D is a block of metal, preferably cast-iron, having the extension E and the head F, as shown. The extension E is of proper shape to be inserted snugly in the canal B upon the cartridge C, and is sufficiently long to be used with logs of different diameters.

e is a central longitudinal canal through the extension, with its outer end bending upward or outward in the head F and ending in an orifice, *e'*. The inner orifice of the canal lies

upon the opening *c* of the cartridge. The head F of the block D is provided on its outer end with the re-entering shoulder *f*.

G is a metal bar, preferably of cast-iron, which in practice has its upper end formed to fit within the shoulder *f*, and has its lower end braced against the metal block or bar H, which is driven into the ground.

In practice the block D weighs about twelve pounds and the bar G about forty pounds. The bar G is about four feet long, and the block or bar H about two feet long, with one-half its length driven in the ground. The log lies with the canal B on one side, and the canal *c* is properly primed up to the orifice *e'*, so as to fire the cartridge therefrom; or a fuse, I, may be inserted into said orifice and fired in the usual manner. It is found in practice that by these means the log can be split straight or into regular longitudinal sections. A light wad, *i*, is placed between the ends of the extension E and the cartridge when gunpowder or any material that does not explode by concussion is used; but if a material that is liable to explode by concussion is used a spiral spring is placed between the extension and the cartridge to prevent such explosion. Better results are obtained by the use of gunpowder and similarly slowly-exploding materials than by quickly-exploding materials, which would be apt to break the log into small fragments.

Having thus described my invention, I claim—

The combination of the cartridge C, provided with the opening *c* and fitting in a transverse opening in a log, with its center in the axial line of the same, and the retaining-block D, fitting down on the cartridge, and provided with the canal *c* and re-entering shoulder *f*, with the brace-bar G, having its upper end formed to engage against said shoulder, and the brace-block H, against which the lower end of the bar G bears when the retaining-block is in place, substantially as specified.

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

WILLIAM T. McCALL.

Witnesses:

R. S. WILLIAMS,
W. E. ELSEBERRY.