(No Model.)

W. T. McCALL.

METHOD OF BLASTING TIMBER.

No. 321,308. Patented June 30, 1885.

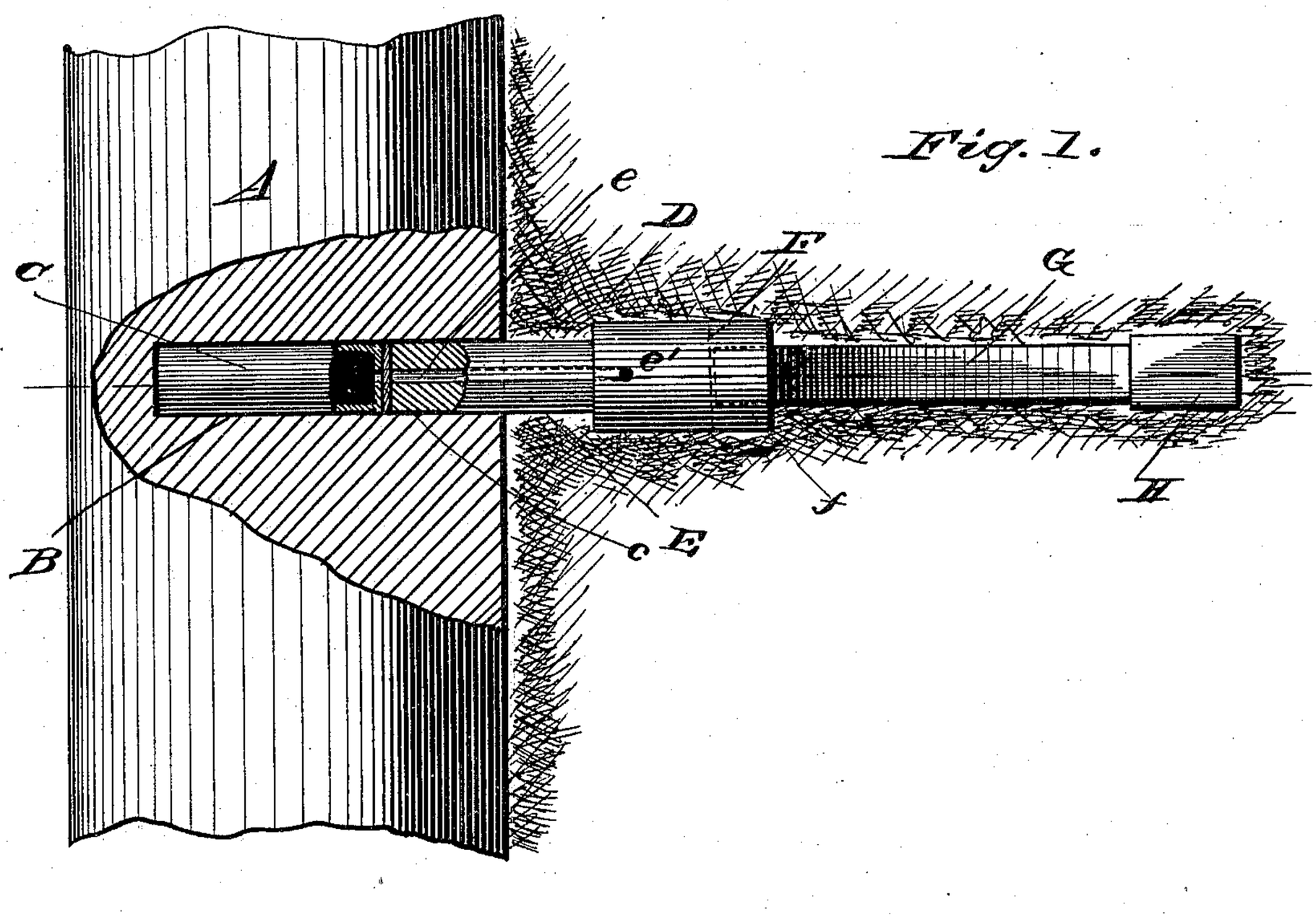
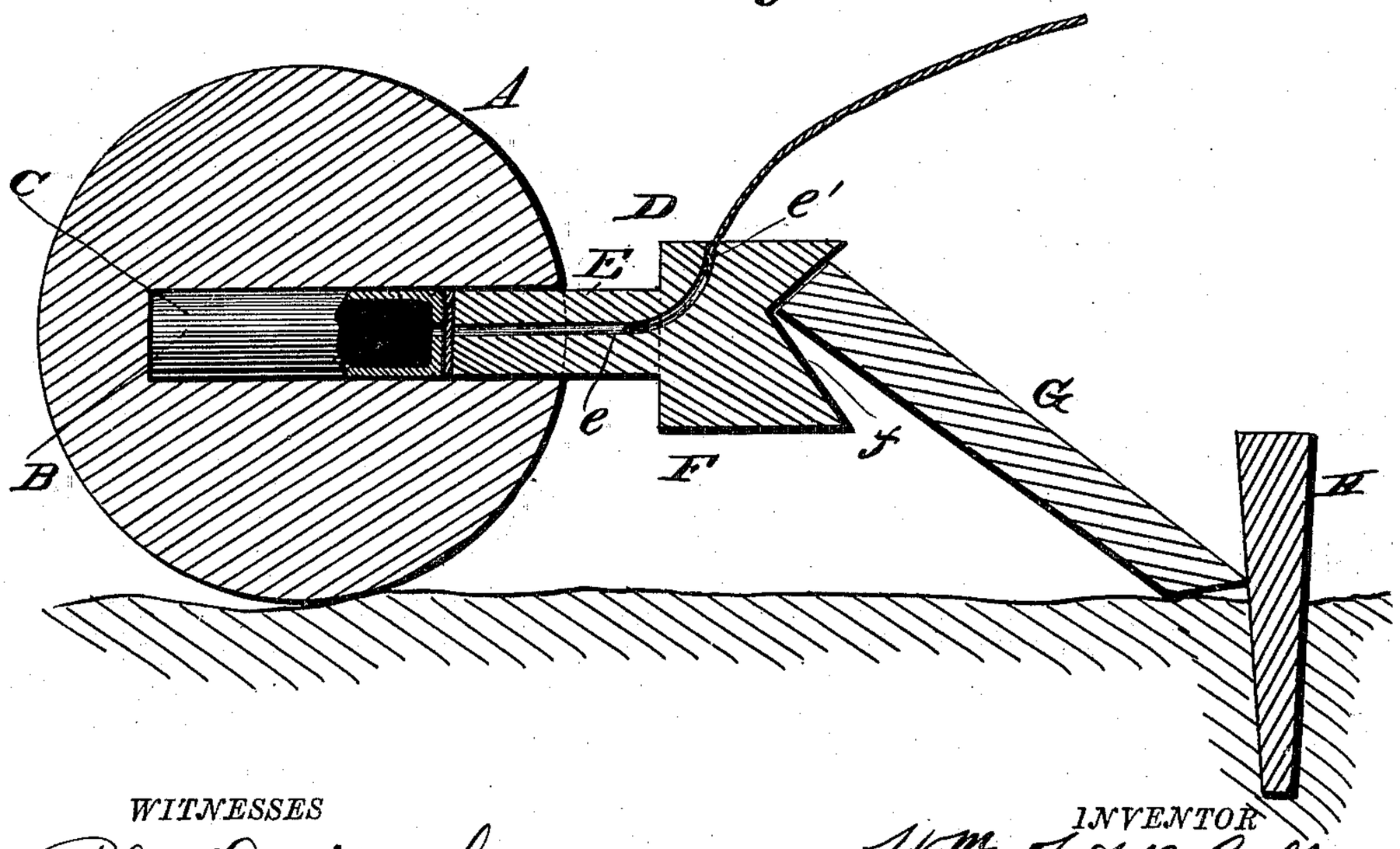


Fig. 1.

Fig. 2



WITNESSES

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

METHOD OF BLASTING TIMBER.

SPECIFICATION forming part of Letters Patent No. 321,308, dated June 30, 1885.

Application filed May 5, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. McCALL, of St. Clair, in the county of Lowndes and State of Alabama, have invented certain new and useful Improvements in Method of 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.

This invention relates to improvements in splitting logs; and it consists in the hereinafter-described method of inserting an explosive cartridge in a bore of the log and exploding the same, so that the log will be rent longitudinally. The invention is particularly applicable to long thick logs, such as the sections of tree-trunks.

Figure 1 is a plan view of the means whereby my method of splitting logs is accomplished. Fig. 2 is a section through the same.

Referring to the accompanying drawings by letter, A designates the section of a tree-trunk about twenty-two feet long and two and a 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 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 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 a re-entering shoulder, *f*.

G is a bar, which in practice has its upper end formed to fit within the shoulder *f*, and has its lower end braced against the block or bar H, which is driven into the ground for about half of its length.

The log lies with the canal B on one side, and the canal *e* is properly primed up to the orifice *e'*, so as to fire the cartridge therefrom.

It is found in practice that by this method the log can be split into regular longitudinal sections.

A light wad is placed between the ends of the extension E and the cartridge when gunpowder is used or other material that does not explode by concussion; but if a material liable to explode by concussion is used a spiral spring may be placed between the cartridge and extension.

Better results are obtained from a slowly-exploding material—such as gunpowder—for a quickly-exploding material is apt to break the log into small fragments.

Having described my method, what I claim is—

The herein-described method of splitting logs, which method consists in making a radial canal in the log, inserting therein a cartridge of some slow exploding material, with its base at the bottom of the canal and its center in the axial line of the log, tamping the cartridge to prevent the explosion from expending itself through the mouth of the canal, and firing the cartridge through a properly primed groove or canal in the tamp.

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

WILLIAM T. McCALL.

Witnesses:
JNO. A. ADAMS,
C. C. COBBS.