(No Model.)

T. A. MAYES.

MINING TOOL.

No. 279,962. Patented June 26, 1883.

Fig. 1.

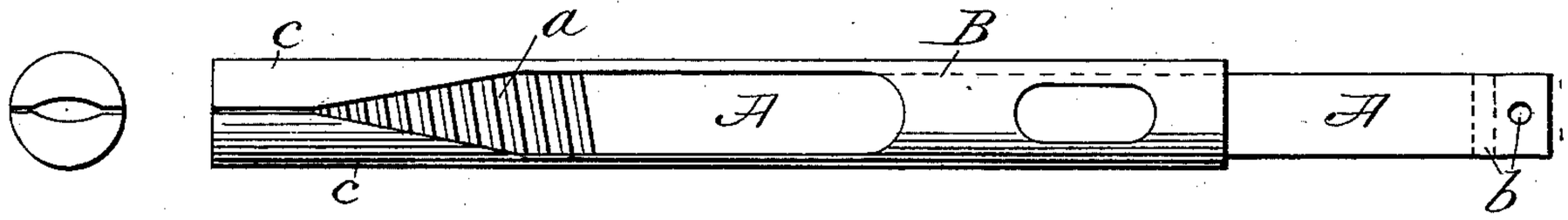


Fig. 2.

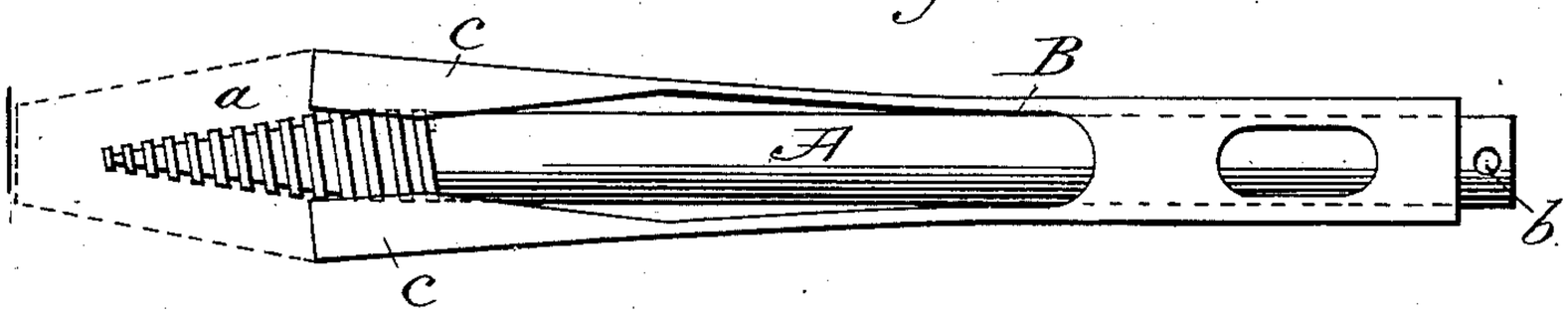


Fig. 3.

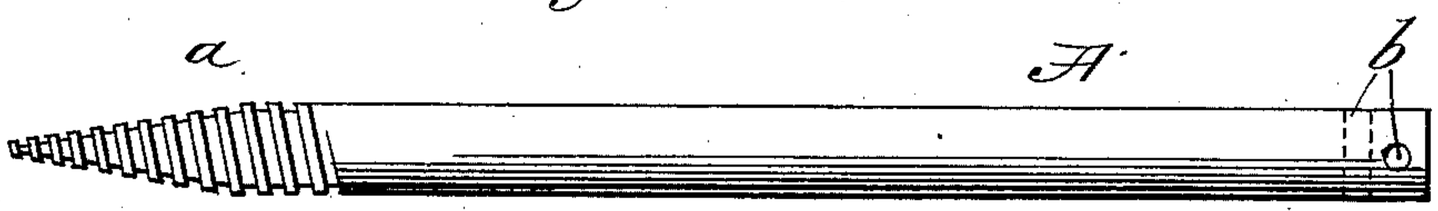
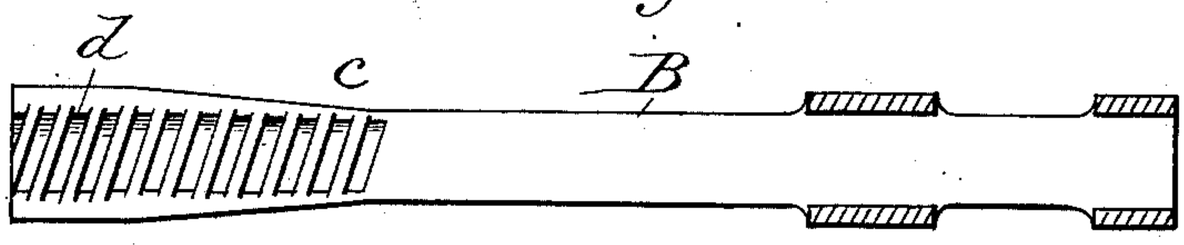


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS A. MAYES, OF PHILIPSBURG, PENNSYLVANIA.

MINING-TOOL.

SPECIFICATION forming part of Letters Patent No. 279,962, dated June 26, 1883.

Application filed April 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. MAYES, a citizen of the United States, residing at Philipsburg, in the county of Centre and State of Pennsylvania, have invented certain new and useful Improvements in Mining-Tools; 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in mining-tools for loosening coal from its holdings, and is designed to be used in lieu of the ordinary blasting processes; and it consists in the peculiar arrangement and construction of parts, as will be hereinafter described.

In the annexed drawings, which fully illustrate my invention, Figure 1 is an end and side view of my improved implement, showing the spring-jaws closed and the tool ready for insertion in the hole or opening in the vein of coal. Fig. 2 is a similar view, showing the jaws distended. Fig. 3 is a side view of the shaft; and Fig. 4 is a horizontal section, showing one of the spring-jaws.

The letter A represents a shaft of suitable material and length, one end of which is provided with the conical screw *a*. The other end of this shaft is furnished with apertures *b*, for the insertion of the bar for turning the shaft. Surrounding the shaft is a sleeve, B, in which the shaft slides and revolves. This sleeve is split at one end and partially cut away, so as to form a pair of spring-jaws, *c c*, as shown in Fig. 2. These jaws are provided with internal screw-threads, *d d*, as seen in Fig. 4, which serve as nuts for the screw *a* to work in when the shaft A is turned.

The operation of the device is as follows: The implement, with the sleeve and shaft in the position shown in Fig. 1, is inserted into the ordinary shot-hole drilled in the face of the coal-vein. The shaft A is turned in the proper direction, which causes the screw *a* to travel in the threads *d d* of jaws *c c*, thus moving the shaft through the sleeve, and at the same time spreading or distending the jaws *c c*, as shown in Fig. 2. The spreading of the jaws will split or force the coal loose from its holdings. By turning the shaft in the opposite direction the jaws can be closed, and the tool is ready for another insertion.

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

1. In a coal-mining tool, the combination, with a shaft, A, provided at one end with a conical screw, *a*, of a sleeve, B, having spring-jaws *c*, provided with internal screw-threads, *d d*, substantially as and for the purpose shown and described.

2. A mining-tool composed of a shaft having a conical screw-threaded point and a sleeve formed with internally-threaded spring-jaws, the shaft being adapted to operate in the sleeve and distend the jaws, as described.

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

THOMAS A. MAYES.

Witnesses:
E. C. BLACKBURN,
M. C. FRYBERGER.