

(No Model.)

J. JONES.

MINER'S COMBINATION TOOL.

No. 270,315.

Patented Jan. 9, 1883.

Fig. 2.

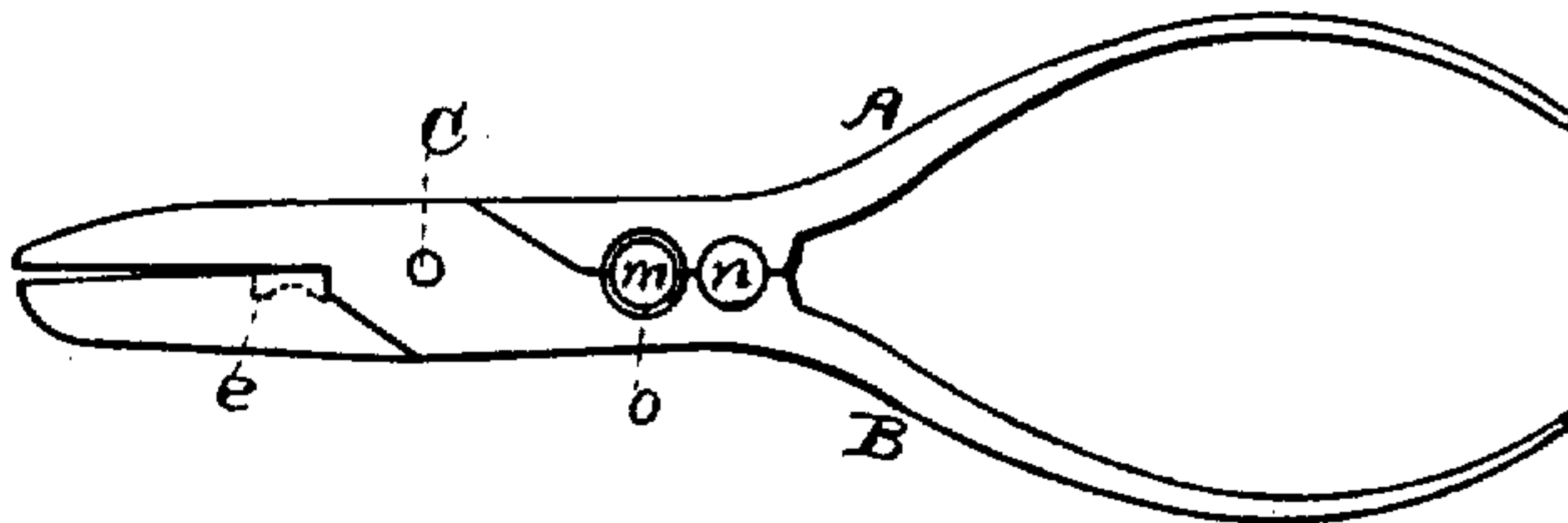


Fig. 1.

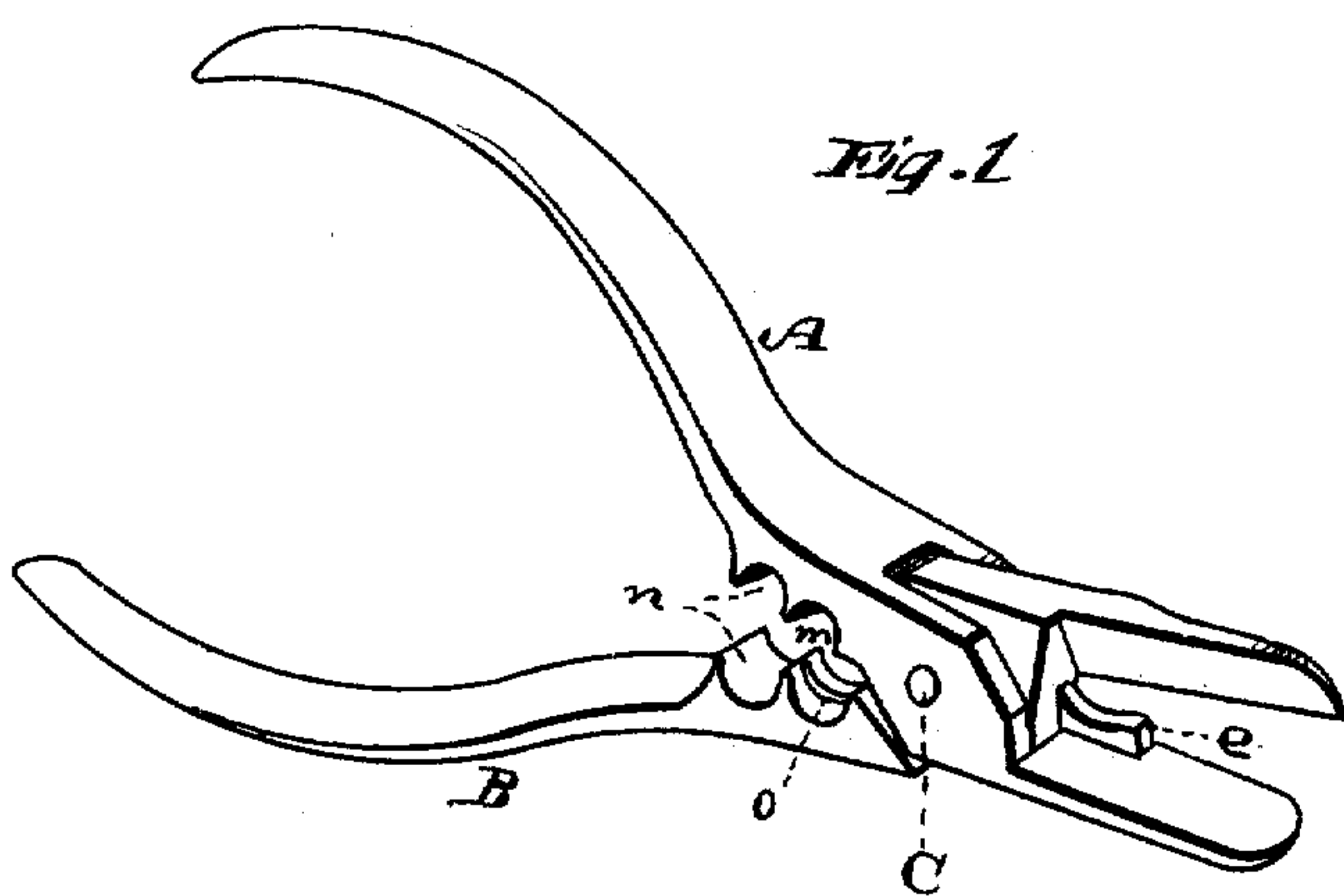
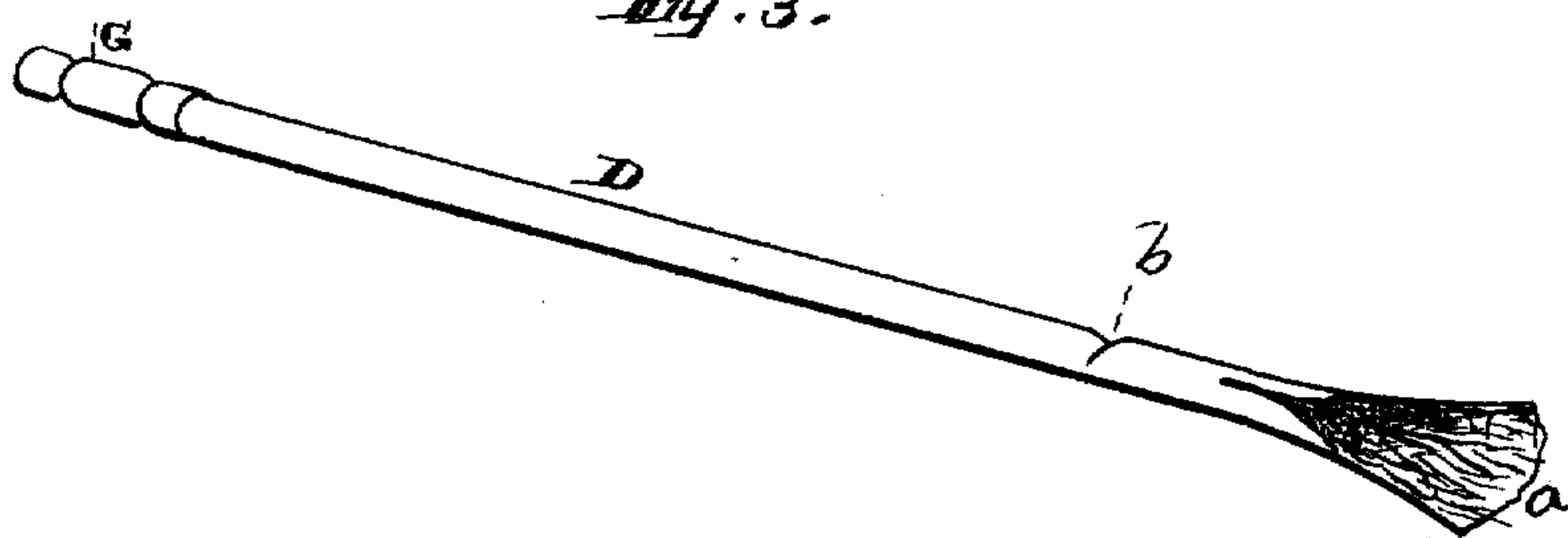


Fig. 3.



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# UNITED STATES PATENT OFFICE.

JOHN JONES, OF OREGON CITY, OREGON.

## MINER'S COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 270,315, dated January 9, 1883.

Application filed April 11, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN JONES, of Oregon City, county of Clackamas, State of Oregon, have invented a Miner's Combination-Tool; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a novel combination-tool for the use of miners in their operation with blasting-fuse.

10 The object of my invention is to provide a tool to split the fuse either lengthwise or crosswise, to cut it off squarely from the coil, to press its end to receive the cap, and, finally, to press the cap tightly upon it.

15 My invention consists in a plier-like tool, the points or jaws of which are formed, one flat and the other into a blade, constituting the splitting mechanism, and the flat jaw having on its rear part a small projection formed into a cutting-edge, which, with that portion of the blade which meets it, constitutes the cutter. Behind the pivot-point the meeting shanks or handles are formed with grooves adapted to fit around and press the end of the fuse, and also with other grooves having ribs and adapted to fit around the cap and press it tightly upon the fuse when fitted upon it.

Referring to the accompanying drawings, Figures 1 and 2 are views of my implement. 30 Fig. 3 represents the fuse.

Blasting-fuse is a tube filled with some combustible composition. In order to get at this composition to apply the match so that it will ignite readily, the protecting-tube should be split lengthwise at one end, as I have shown at *a* in Fig. 3. Sometimes, where no blasting-cap is employed and the explosion is effected by direct contact with fire, it is necessary to split or cut the sides of the tube crosswise, as shown at *b b* in Fig. 3, so that the fire, when it reaches these cuts, may issue forth to produce the explosion.

Let *A* represent one half the tool, and *B* the other, pivoted together at *C*, and bearing a resemblance to the ordinary pliers. The side *A* has its point or jaw made flat upon its inner surface, as shown, while the side *B* has its jaw made in the shape of a blade, the cutting-edge

of which is adapted to be brought down upon the flat surface of the other jaw. By this construction the fuse *D* may be split or laid open, as explained and shown, and may be cut crosswise without entirely cutting through it. Upon the flat jaw, near its rear part, is a projection, *e*, which is ground to a cutting-edge, and forms, with the blade of the other jaw, a short cutter. In this the fuse may easily be severed from the coil or cut into desired lengths. Behind the pivot-point, in the inner sides of the two shanks or handles, which are of some width, are cut grooves *m m*, which, when the shanks meet, form a hole or die. In these grooves are formed ribs or beads *o*.

When the cap *G* is fitted upon the end of the fuse it requires to be pressed tightly thereon, making it secure and water-tight, so that it will not be damaged when used in wet holes, &c. The handles are opened and the cap fitted in the grooves *m*, which are then brought together and pressed tightly around it. The beads *o* press into it and form peripheral dents, which hold it securely to the fuse. Behind the grooves *m m* are others, *n n*, which are made to fit over the end of the fuse, and by compressing it prepare it to receive the cap with ease.

By the use of this tool the fuse and cap may be readily prepared.

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

The combination-tool for splitting and cutting blasting-fuse, pressing it to receive the blasting-cap, and securing said cap thereon, consisting of the parts or sides *A B*, pivoted at *C*, the former having a flat point or jaw with a cutting-projection, *e*, and the latter having a sharp blade-like point or jaw, said sides *A B* also having behind their pivot-point the grooves *m m*, with their beads or ribs *o* and the grooves *n n*, substantially as herein described.

In witness whereof I hereunto set my hand.

JOHN JONES.

Witnesses:

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