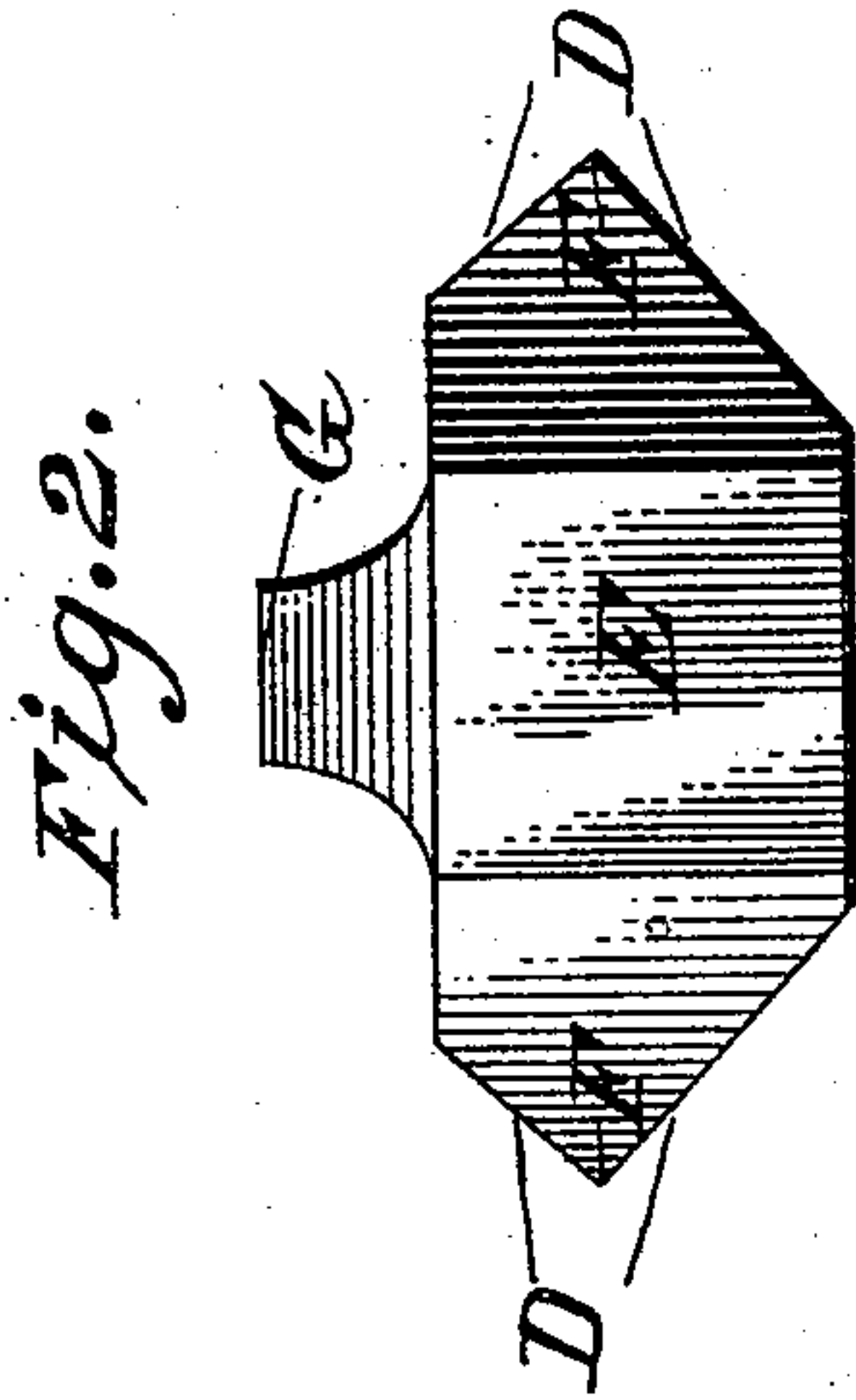
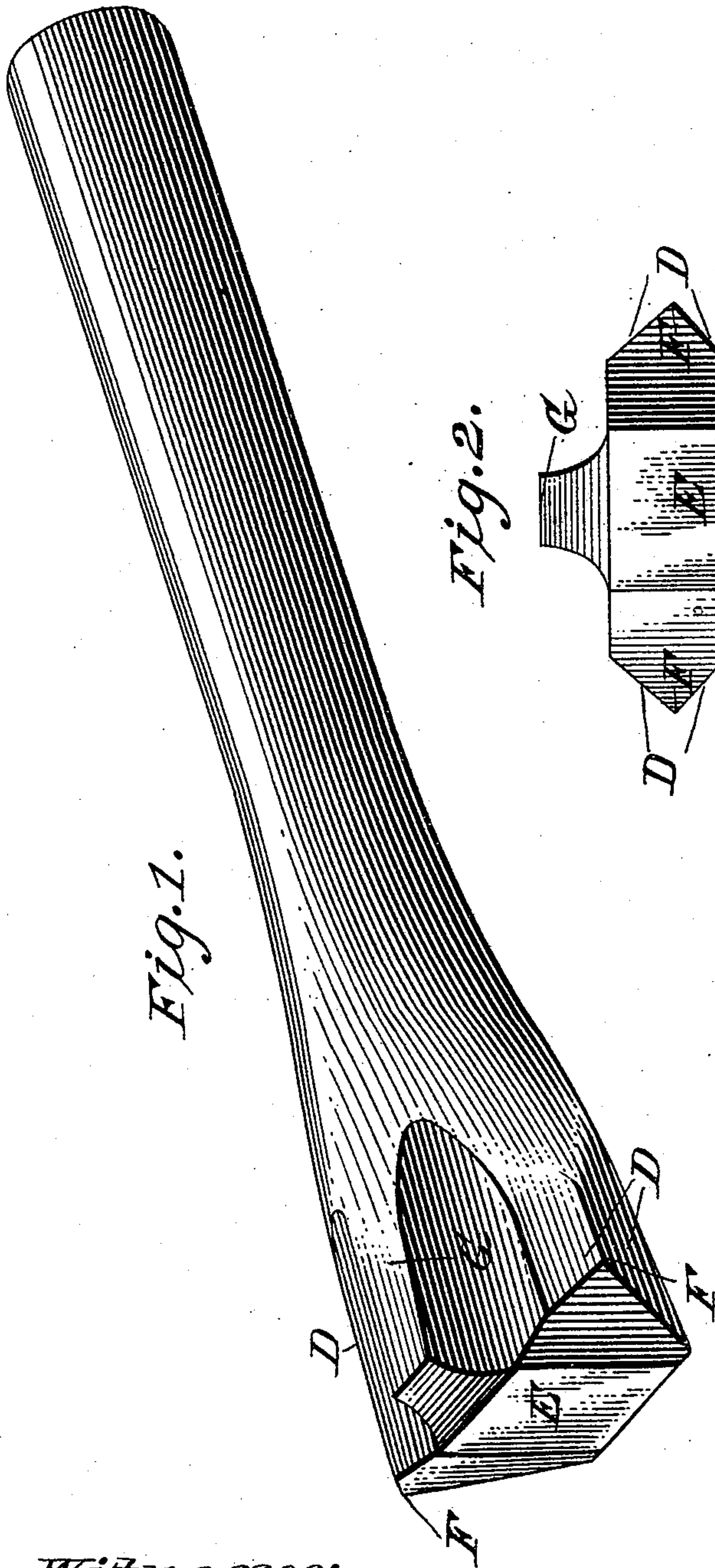


(No Model.)

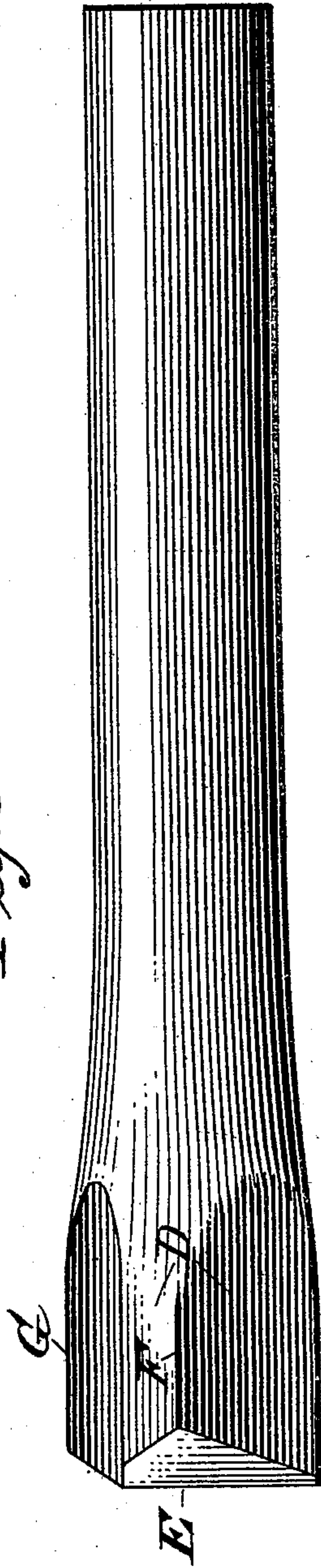
B. G. ONEAL.  
ROCK DRILL.

No. 467,190.

Patented Jan. 19, 1892.



*Fig. 3.*



Witnesses:  
V. B. Wilson.  
J. B. Young.

Inventor:  
Bernard G. O'Neal  
per, G. H. Thompson,  
Attorney.

# UNITED STATES PATENT OFFICE.

BERNARD G. ONEAL, OF WASHINGTON, PENNSYLVANIA.

## ROCK-DRILL.

SPECIFICATION forming part of Letters Patent No. 467,190, dated January 19, 1892.

Application filed August 27, 1891. Serial No. 403,926. (No model.)

*To all whom it may concern:*

Be it known that I, BERNARD G. ONEAL, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented a new and useful Rock-Drill, of which the following is a specification.

The object of my invention is to provide a more effective tool than any heretofore in use for drilling or reaming the holes in rock when preparing the same to be split with powder or other explosive by blasting and when it is desired to split them true to a line. This I accomplish in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 represents in perspective the cutting end of a drill which is transversely oblong in form; Fig. 2, a plan of the point, and Fig. 3 a side elevation of the same.

The sides D are beveled to an edge and may be of variable length from the point to the shank. The extreme point E is square; but from this point the end is beveled toward the shank upon either side, forming upon either side the angular cutting-points F. Upon one of the broad sides the surface is raised, forming the hunch or ridge G. When

the circular holes are made by the ordinary drill on the line on which the rock is to be split, the centers of the holes being on said line, my newly-invented drill is brought into use to finish the same. Between the points F the drill must be wider than the hole to be finished. The end of the drill is then placed in the hole with the points F on a line that would pass directly through their centers, and in this position it is driven downward, the points F cutting into the sides of the hole and forming breaches in them. The rock, being thus partly separated by the drills, is wholly severed when the blast is applied. When the drill is in a working position, it is held with the hunch G against the side of the hole, which prevents it from wobbling and enables it to be guided perpendicularly when in operation.

What I claim is—

A rock-drill or reamer having an elevated side or hunch G, in combination with the cutting-points F F, substantially as set forth.

BERNARD G. ONEAL.

Witnesses:

F. M. PARRISH,  
W. B. STEVENS.