

G. WATSON.
EARTH AUGER.

No. 187,241.

Patented Feb. 13, 1877.

Fig. 1.

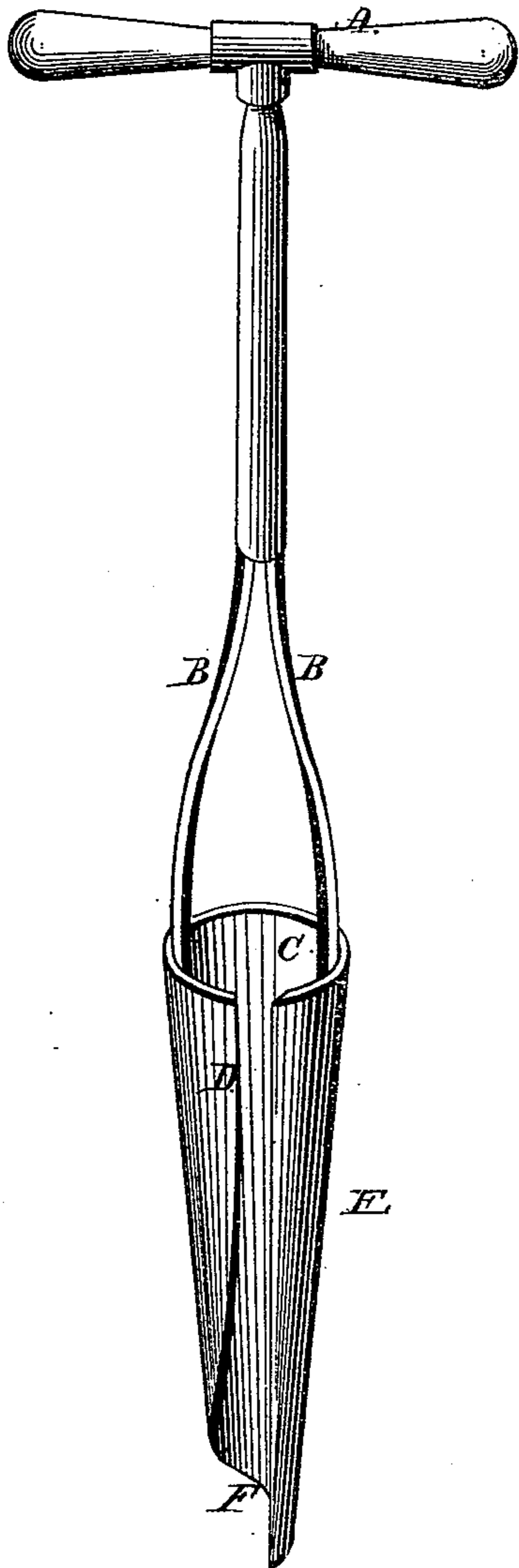
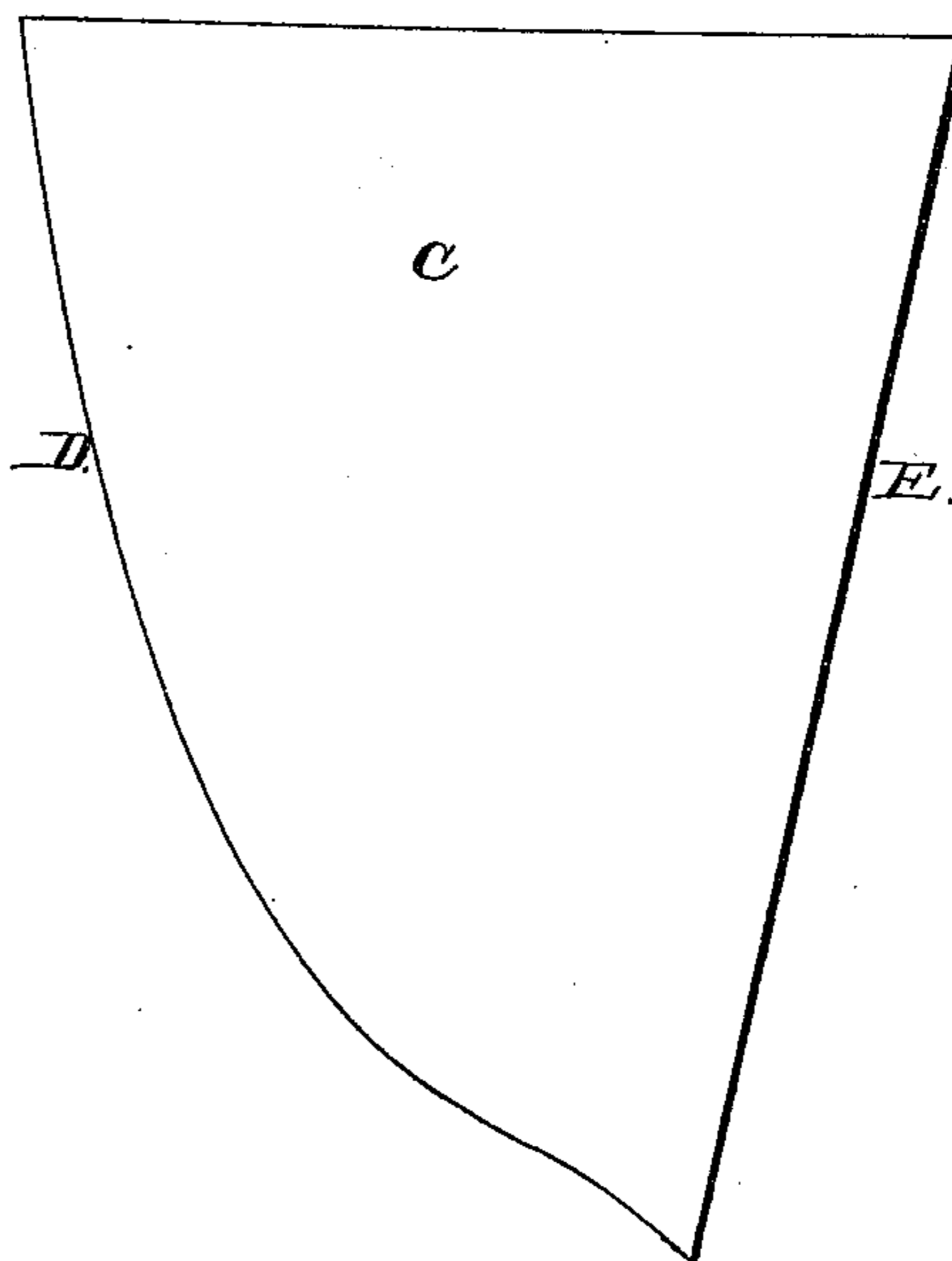


Fig. 2.



Witnesses:

John H. Redstone
Albert E. Redstone

Inventor:

George Watson.

UNITED STATES PATENT OFFICE.

GEORGE WATSON, OF OAKLAND, CALIFORNIA.

IMPROVEMENT IN EARTH-AUGERS.

Specification forming part of Letters Patent No. **187,241**, dated February 13, 1877; application filed February 21, 1876.

To all whom it may concern :

Be it known that I, GEORGE WATSON, of Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Earth-Augers, of which the following is a specification :

Figure 1 is a perspective view of my improved post-hole digger or earth-borer, and Fig. 2 is a view of the blade of the same.

The following is the construction of the same: A represents the handle. BB represent the two prongs by which the same is attached to the blade. C represents the blade. D represents the curved edge, and E the cutting-edge, which is straight and stands out, forming the outer edge of a volute or scroll and the cutting-edge of the borer.

The blade C is shown at Fig. 2 in the form of the flat sheet, of which the blade is formed by rolling in a volute form, as shown.

The object of my invention is to avoid the effect of atmospheric pressure in lifting the earth from the hole and to reduce the amount of resistance in penetrating hard soil.

The following is the operation of the same: The point is placed upon the ground concentric with the position designed for the post. The handle is then turned, and a suitable pressure applied to force the blade into the ground. It enters freely, and when about two-thirds full it is withdrawn and discharged,

and again placed down, when it fills with much less exertion on the part of the operator. This time it is filled to the top, when it is readily withdrawn, the inclined or tapering sides serving the double purpose of packing the loose sand or earth for lifting out and freeing from the sides to relieve the atmospheric pressure.

In case the post-hole is not properly centered to receive the post in the required line, the side may be readily shaved or cut down as with a shovel.

The same effect produced by my improved borer may be had, but in a less perfect manner, by producing only a portion of the scroll or volute plate, but I have shown the most complete form for all kinds of soil. It will take in quite large stones and bring them up with the other material.

The cutting edge may be more or less raised out or the opening made wider to suit the nature of the soil.

Having thus described my invention, I claim—

The conical scroll-shaped blade C, having the straight edge E, curved edge D, and spiral open point F, substantially as specified.

GEORGE WATSON.

Witnesses :

JOHN H. REDSTONE,
ALBERT E. REDSTONE.