

D. Gordon.

Earth Auger.

N^o 25,896.

Patented Oct. 25, 1859.

Fig. 3.

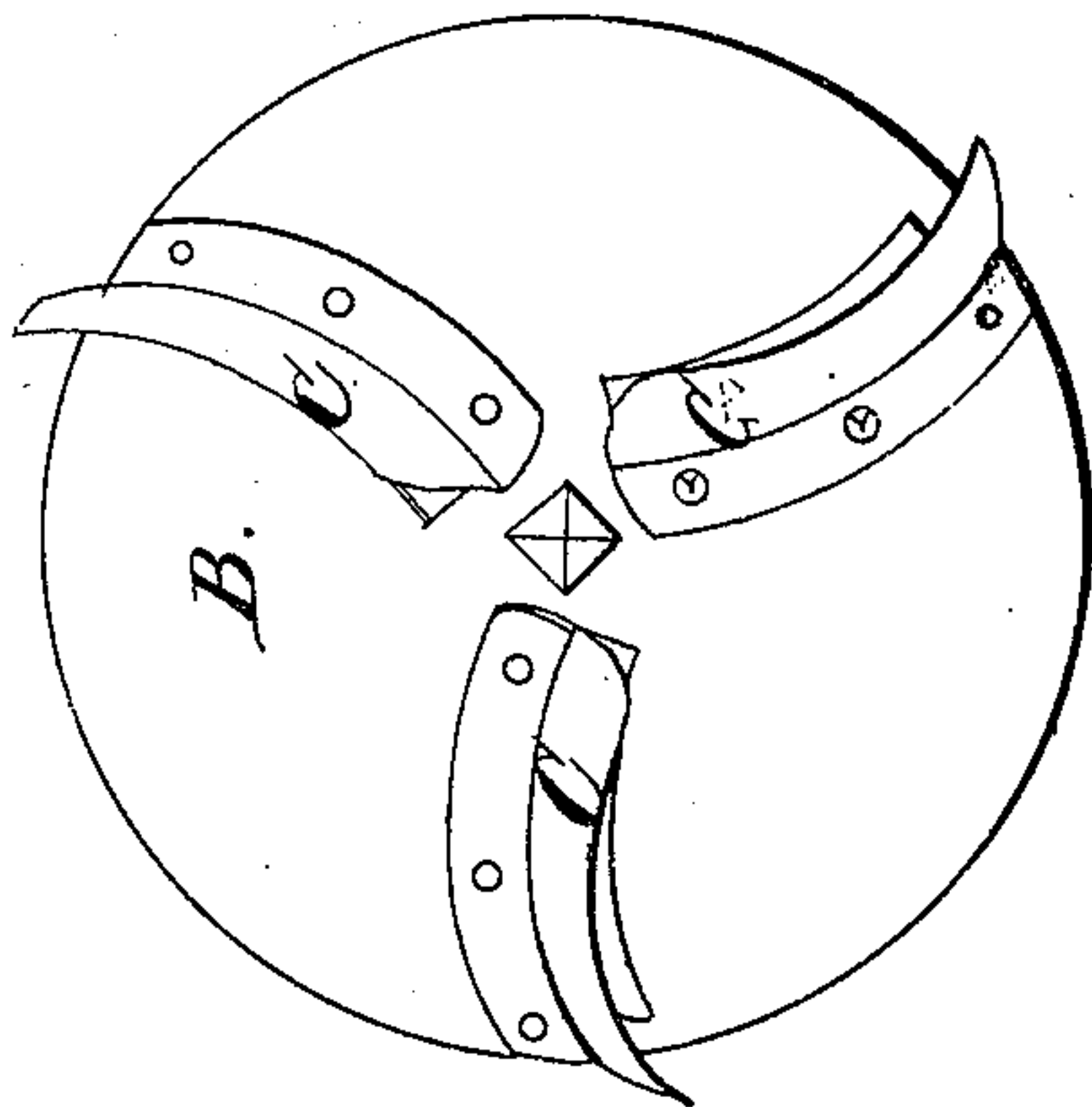
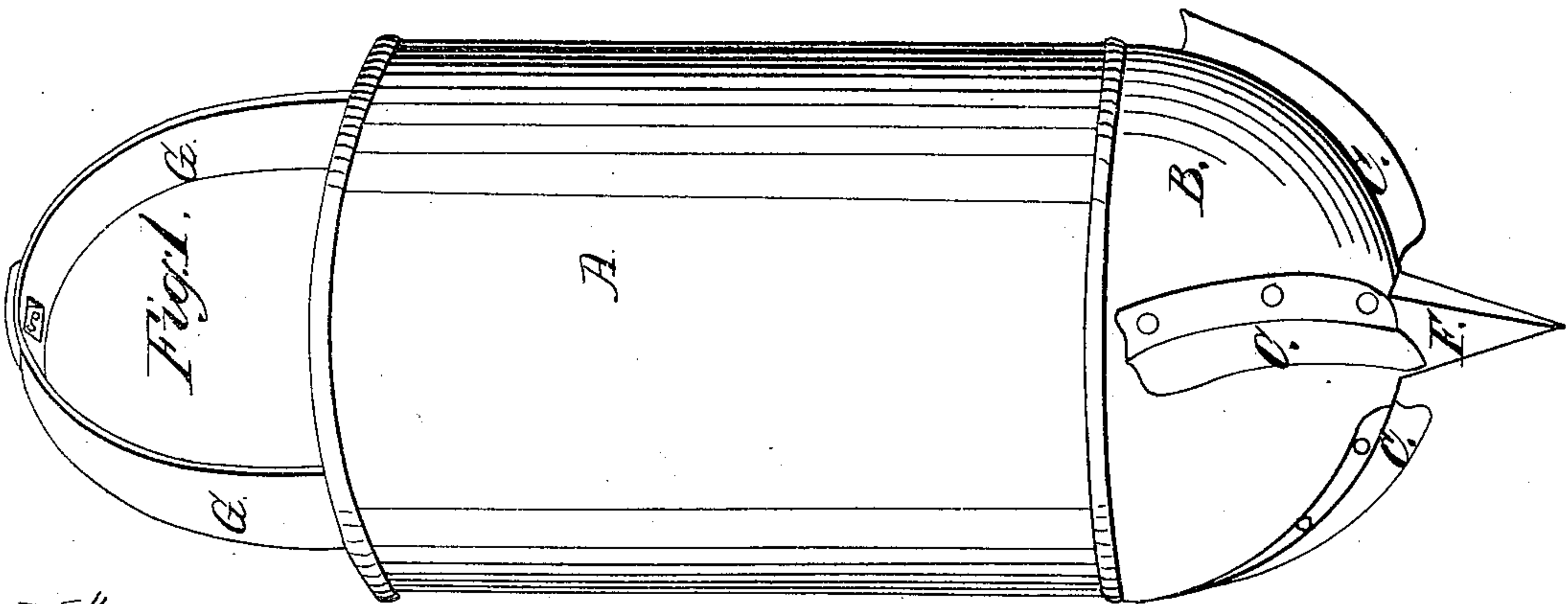
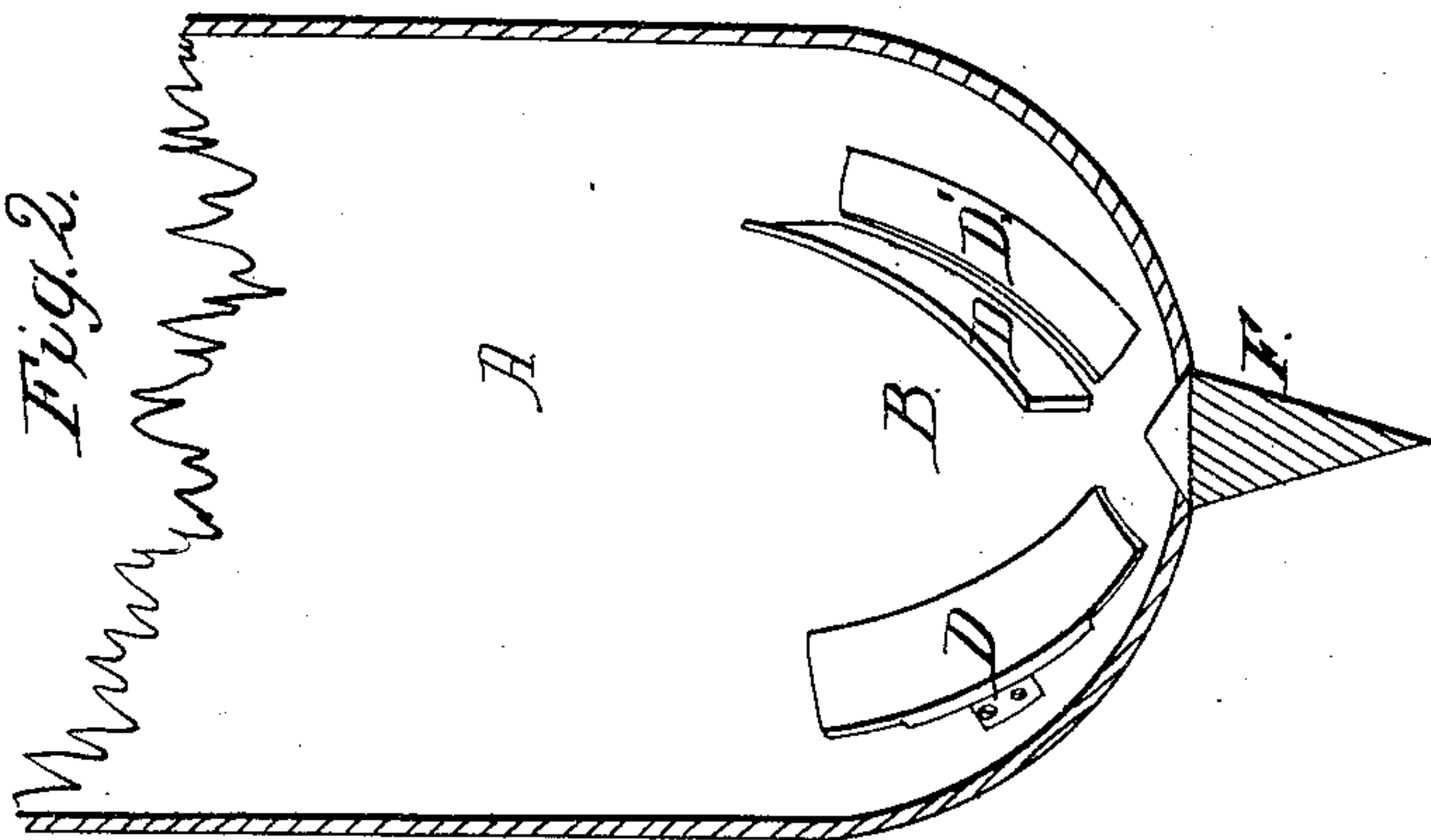


Fig. 2.



Witnesses;
John Jordan
W. C. Walcott

Inventor;
Daniel Gordon

UNITED STATES PATENT OFFICE.

DANIEL GORDON, OF EVANSVILLE, INDIANA.

IMPLEMENT FOR BORING EARTH.

Specification of Letters Patent No. 25,896, dated October 25, 1859.

To all whom it may concern:

Be it known that I, DANIEL GORDON, of Evansville, in the county of Vanderberg and State of Indiana, have invented a new and
5 useful Improvement in Post and Well Augers; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings and to the letters of reference
10 marked thereon and made to form a part of this specification.

The nature of the invention consists in the form and arrangement of the parts of the basis, or lower portion of the boring cylinder presently to be described.

In reference to the accompanying drawings Figure 1, is a perspective external view. Fig. 2 a vertical sectional view and Fig. 3
a plan or bottom view of the auger.

20 (A) represents the boring cylinder, provided with a convex base (B), and with a balance bail (G).

(C) are cutting blades secured to the base (B) and arranged in such manner that the
25 upper portions of their cutting edges may extend beyond the outside diameter of the cylinder (A) by means of which the earth or sand, as the case may be, may be removed from a circle whose diameter is
30 greater than that of the cylinder (A), thereby allowing the auger to be removed, from an excavation without impinging against the surrounding earth.

(D) are valves hinged upon the inside of
35 the base (B), by means of which earth or sand when mixed with water may be secured within the cylinder, and withdrawn from the well, or excavation.

F, is a protector attached to the base (B)
40 by means of which the blades (C) are prevented from coming in contact with, rocks, or other hard substances, as the auger descends (g) is an opening in the balance bail

(G), through which the shaft for operating the auger may be made to pass. 45

The operation of the auger may be described as follows: The protector, F, being placed at the center of the circle to be excavated, and the auger being made to rotate by means of proper machinery, the cutting
50 blades (C), will act on the principle of a screw, and eat, or cut their way into the earth, and the earth which they remove, will be forced through the openings (D') of the base (B) into the cylinder (A, B). When
55 sufficient quantity of earth has been thus forced into the cylinder, the rotary motion of the auger will be stopped, the valves (D) will be closed by the inside pressure, and the contained earth will be removed with the
60 auger, and deposited upon the surface of the ground, when the above process will be repeated until the excavation is completed, the valves (D) are particularly adapted to soft soils or sand mixed with water, as the sand
65 is prevented from escaping with the water from the cylinder. In cases where rocks are met with in boring, the protector (F) will first meet the rock, and prevent the blades (C) from injury or destruction by sudden
70 contact with them.

What I claim as my invention and desire to patent, is—

1. Arranging the blades (C) on the convex surface of the bottom of the auger and
75 extending the cut beyond the periphery as represented.

2. I also claim arranging the valves in the concave sides of the bottom of the auger as
80 set forth.

In testimony of which invention I have hereunto set my hand.

DANIEL GORDON.

Witnesses:

JOHN IVINSON,
WM. E. HALLOCK.