

*J. Buck,  
Earth Auger,*

*N<sup>o</sup> 4,064.*

*Patented Feb. 5, 1850.*

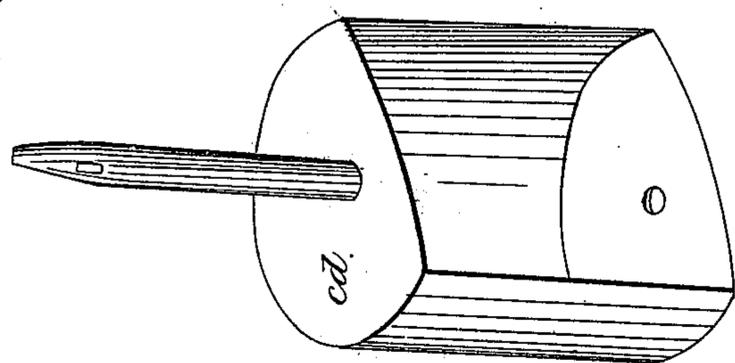


Fig. 3

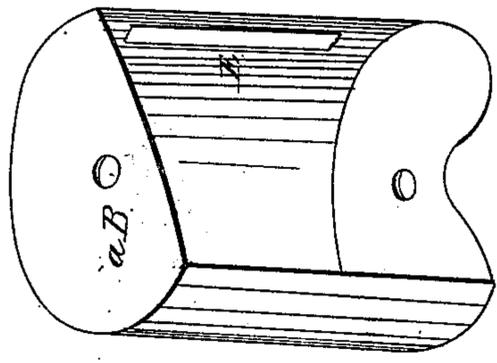


Fig. 2.

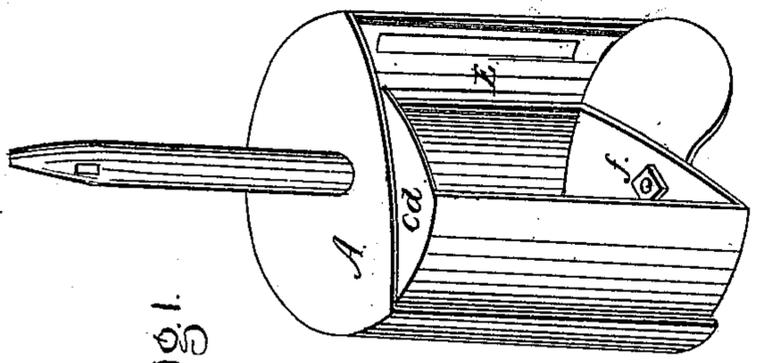


Fig. 1.

# UNITED STATES PATENT OFFICE.

JAMES BUCK, OF BUCKSPORT, MAINE.

## EXCAVATING-AUGER.

Specification of Letters Patent No. 7,067, dated February 5, 1850.

*To all whom it may concern:*

Be it known that I, JAMES BUCK, of Bucksport, county of Hancock, and State of Maine, have invented a new and useful machine or instrument for boring into the earth, under water or otherwise, and inclosing the earth or other matter thus bored and taking it up; I do hereby declare that the following is a full and exact description of the mode of constructing and operating the same, reference being had to the accompanying drawings, making a part of this specification.

I construct my machine or instrument by making about one half of a cylinder with a hole in the center of each end; the lower end I make with a lip like a pod auger as represented in Fig. 2. Then I make another section of a cylinder smaller so that it will slide or turn into the first part of a cylinder as represented in Fig. 3.

I put the handle or shaft by which the machine or instrument is worked through the upper end of the larger or outer section of a cylinder as represented in Fig. 1, A, and attach it firmly to the inner or smaller half of a cylinder *c d*. The lower ends are fastened together by a rivet or bolt put through the center of each as in Fig. 1 letter *f*.

I make a projection on the inside edge of the larger or outer section of a cylinder Fig. 2, E, against which the inner section of a cylinder when the handle is turned one way comes in contact (or I make a stop at any point for the same purpose) which confines the machine or instrument in a shape similar to a pod auger one section of a cylinder being within the other, Fig. 1. And by turning the machine or instrument in this

shape it may be forced into the earth or other matter and by reversing the motion of the handle or shaft it shuts up the machine, that is it turns out the inner half cylinder or section of a cylinder so that both make a whole cylinder or bucket.

I do not wish to be confined to making the upper end of the machine flat nor to having it entirely closed. I propose to work the machine by hand power or any other power that may be found most convenient.

What I claim as my invention and desire to secure by Letters Patent is—

The formation of a machine or instrument for boring the earth under water or otherwise and retaining the substance bored until it can be brought to the surface which I construct in the manner following: I first make two sections of a cylinder or pods the one of which is enough smaller than the other to admit its turning into the larger one, and I connect them together by pivots through the ends of each the larger section of a cylinder or pod having a lip similar to a pod auger and I attach a shaft or handle firmly to the upper pivot which pivot passes through the center of the outer section of a cylinder or pod, and is attached firmly to the smaller section of a cylinder or pod so that by turning the shaft one way I put it into a pod auger shape ready for boring; by reversing the motion of the handle or shaft it turns the inner section of a cylinder out of the other making it into a cylindrical or bucket shape and thereby secure the substance bored.

JAMES BUCK.

Witnesses:

THEODORE C. WOODMAN,  
HENRY DURLING.