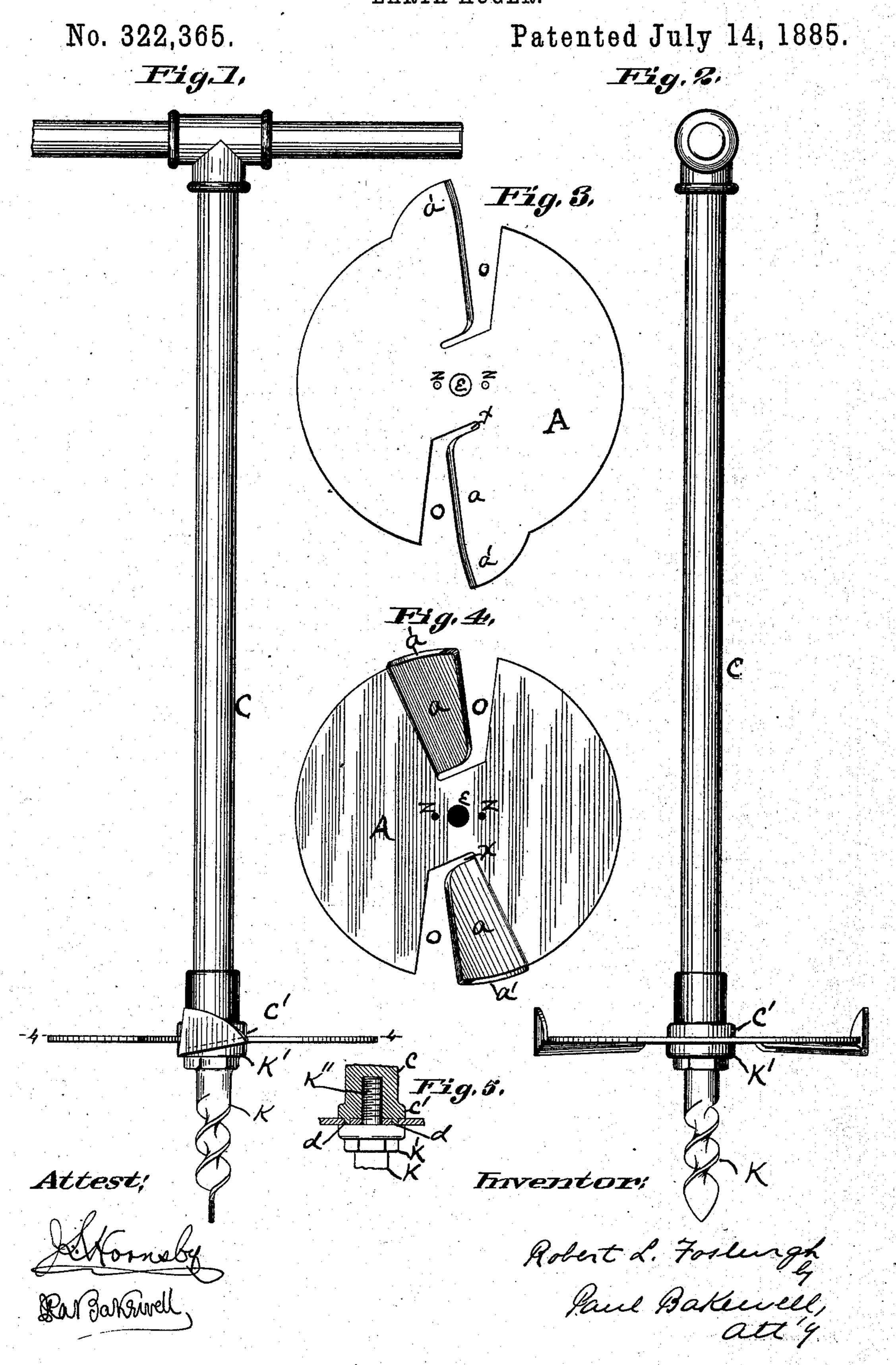
(No Model.)

## R. L. FOSBURGH. EARTH AUGER.



## United States Patent Office.

ROBERT L. FOSBURGH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO JOSEPH W. BRANCH, OF SAME PLACE.

## EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 322,365, dated July 14, 1885.

Application filed March 2, 1885. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. FOSBURGH, of the city of St. Louis, State of Missouri, have made a certain new and useful Improvement in Earth-Augers, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, in which—

Figure 1 is a side view of my improved auger-blade; Fig. 2, a similar view of same, turned a quarter; Fig. 3, a top view of the blank from which the blade is formed; Fig. 4, a horizontal section on line 4 4 of Fig. 1; Fig. 5, a detail section showing manner of at-

taching blade to auger-shaft.

This improvement relates particularly to the construction of the cutting-edge part of the blade and to the peculiar manner of fastening blade to auger-shaft. The construction of my invention is as follows: In my blade, 20 being a metal disk, A, I cut a slot, o, providing this slot o at its inner extremity with an extension, x. When this slot o and its projection x are cut into the blade, the result is a part of the blade is formed into a lip, a. This 25 part of the blade forming the lip a is provided with a projection, a', preferably being an extension from the circumference of the blade at that point, as shown in Figs. 3 and 4. This projection a' is then turned or bent up upon 30 right angles with the edge of the lip a and at right angles with the face of the blade A, as shown in Figs. 1, 2, and 4. Lip a is then bent out of line with the face of blade A, and its edge along the line of slot o and the edge 35 of projection a' sharpened, and the augerblade is completed. When desirable, the opposite side of blade A can be provided with a similar lip, a, and lip projection, a', made in the same manner as illustrated in the drawings.

The blade A is attached to auger-shaft c preferably in the following manner: At its lower end said shaft c is provided with a

shoulder, c', said shoulder having projecting lugs  $d\,d$ . The center of the lower end of shaft c is threaded to receive a screw. (See Fig. 5.) 4

In the center of blade A a circular hole, e, is cut, and on the sides of this circular hole e two holes, zz, are cut. The circular hole e is to receive the screw end fitting into threaded end of shaft c, and the holes zz are to receive

lugs d d of shaft-shoulder c'.

The blade A is adjusted to shaft-shoulder c', so that lugs d d pass into holes zz; then a spiral-feed end piece, k, having a shoulder, k', to bear up against and support blade A, and a threaded projection, k", is fastened to 5 end of auger-shaft c by threaded projection k" of end piece k being screwed into threaded end of shaft c, and when end piece, k, is screwed up it holds blade A tightly and snugly in place between shoulders k' and c', blade A 6 being prevented from turning on auger-shaft c by reason of lugs d d.

I am aware of Letters Patent No. 308,354, of November 25, 1884, to George W. Gilman, and of Letters Patent No. 283,283, of August 6, 14, 1883, to Malcolm J. Romine and David P. Lee, and I disclaim the devices claimed and described in said Letters Patent; but

What I desire to claim is—

In an earth-auger, the combination of the 70 blade A, having circular opening e and holes zz; the shaft c, having shoulder c', lugs d d, and threaded end, and spiral-feed end piece, k, having shoulder k' and screw end k'', substantially as described.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 21st

day of February, 1885.

ROBERT L. FOSBURGH.

Witnesses:

PAUL BAKEWELL, J. L. HORNSBY.