(No Model.)

H. OLSON.

AUGER.

No. 309,868. Patented Dec. 30, 1884.

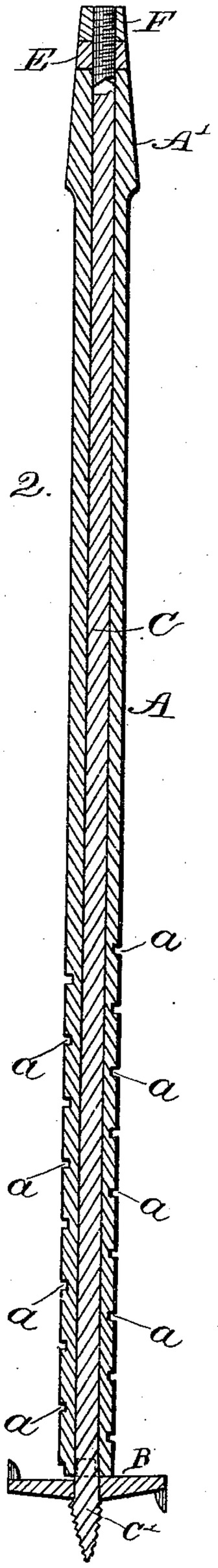

Fig. 2.

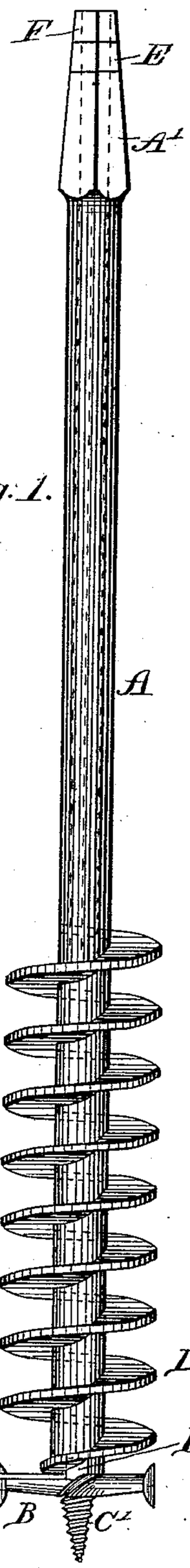

Fig. 1.

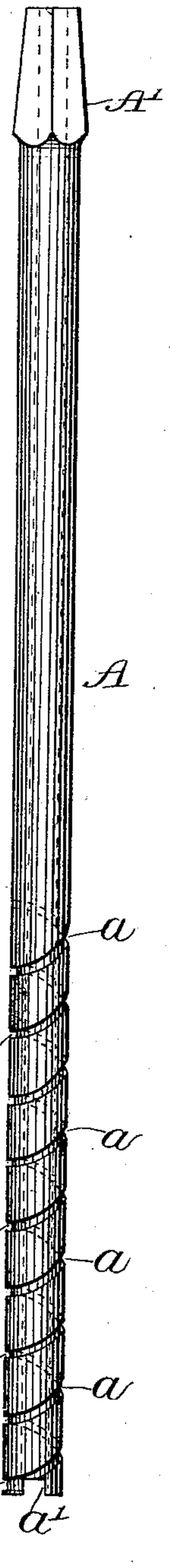

Fig. 3.

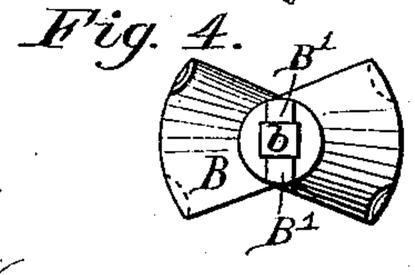

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 309,868, dated December 30, 1884.

Application filed August 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, HOLCOMB OLSON, of Olesburg, in the county of Pottawatomie and State of Kansas, have invented a new and useful Improvement in Augers; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of this improvement is an auger composed of detachable interchangeable parts or sections adapted to boring holes of different size, and being replaced by new parts when impaired by use or other causes. This result is attained by the mechanism illustrated in the drawings herewith filed as part hereof, in which the same letters of reference denote the same parts in the different views.

Figure 1 is a side elevation of an auger embodying the features of my improvement. Fig. 2 is a transverse vertical section. Fig. 3 is a view of one of the parts detached. Fig. 4 is a top view of the bit.

A is a rod or shank, having a central square recess through its entire length and a spiral groove, *a*, in its lower outside, for a purpose hereinafter set forth.

B is the auger-bit, made after any approved pattern, and provided with a square central opening, as shown at *b*, Fig. 4, and vertical extensions B′.

C is a square bolt-rod, having an integral gimlet-point, C′, the upper or widest part of which is somewhat larger than the opening *b* in the bit B.

D is a detachable spiral projection or chip-elevator, the pitch of which agrees with the pitch of the spiral groove *a* in the rod or shank A, whereby the spiral projection D may be screwed on or off the same in substantially the same manner as a nut is put on or taken from an ordinary bolt.

In connecting the parts for use the spiral D is first adjusted in the manner described. The bit B is then placed in position, with its vertical extensions B′ in the transverse slots *a′* on the rod A. The rod C is then put in place, as shown. The enlargement of the latter, forming the gimlet-point C′, will act as a bolt-head against the bit B, the vertical extensions of which will enter the slots *a′* of the hollow rod A, and by tightening the nut F and washer E at the upper or screw-threaded end of the rod C the relative position of all the parts will be rigidly secured.

A′ represents the usual square shoulder for the attachment of the handle for operating the auger, each of which is to be provided with a series of different-sized interchangeable bits and spirals for adjustment to the rod A, as occasion may require.

Having explained the construction and operation of my improvement, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the bottom rod or shank, A, having a spiral groove, *a*, detachable spiral projection D, and gimlet-pointed bolt C C′, with cutter-bit B and tightening-nut F, substantially as described, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HOLCOMB OLSON.

Witnesses:
CHARLES H. BRAUN,
C. F. REMICK.