

(No Model.)

T. SMITH.
EARTH AUGER.

No. 469,307.

Patented Feb. 23, 1892.

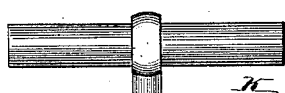


Fig. 1.



Fig. 2.

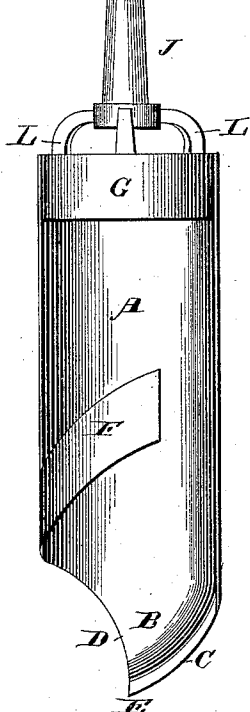
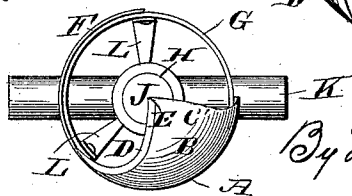
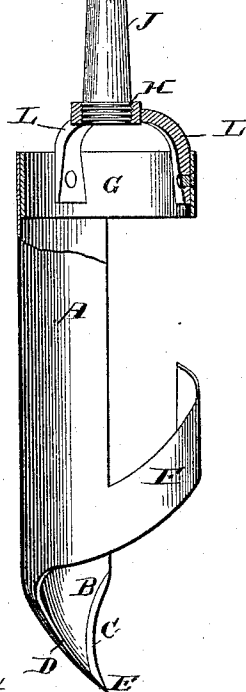


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS SMITH, OF BRECKINRIDGE, MISSOURI, ASSIGNOR OF TWO-THIRDS
TO JOHN F. SMITH AND JAMES B. BENNETT.

EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 469,307, dated February 23, 1892.

Application filed January 2, 1891. Serial No. 376,516. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SMITH, of Breckinridge, county of Caldwell, and State of Missouri, have invented certain new and useful Improvements in Earth-Augers, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a comparatively cheap and simple earth-auger bit that may be readily detached from its head when it is desired to substitute one bit for another, that is very effective in its operation, and is so constructed that it may be easily sharpened by any one.

In the accompanying drawings, Figure 1 is a side view of my auger; Fig. 2, a view of another side, partly in section; and Fig. 3 is a bottom plan view of my invention.

Referring to the letters on the drawings, A indicates a semi-cylindrical piece of sheet metal, preferably steel or hardened iron. This piece, which constitutes the "main body portion," I will call it, of my bit, is provided at its lower end with a blade B, which is furnished, as illustrated in the drawings, with the outwardly-curved side C, which forms a curved continuation of one side of the part A, and with the concave edge D. The curved edges C and D are cut in the sheet metal of the semi-cylinder A. Its point E is drawn over to the center of the cylinder, of which the part A is a half, so that the point of my bit is similar in location and function to the point of an ordinary wood drill.

F indicates a fender, which is secured by any suitable means, integrally or otherwise, to the side of the piece A, so as to form with its lower edge a continuation of the concave edge D. It is twisted so that the bit resembles in its curve from the point of the blade to the end of the fender a spiral somewhat like a twisted auger. This form causes the

bit when turned in the ground to feed or bore downwardly in a straight direction, so that a straight smooth hole may be made by it for the reception of a fence-post, telegraph-pole, or the like. This fender holds the loose earth in the bit when it is drawn from the hole. To the upper end of the piece A is secured a ring G, within which is fastened, preferably by rivets, a tripod head that is provided, preferably, with an internally-screw-threaded orifice H, that is adapted to receive the end of the stem J, which, when the means of uniting them are screw-threads, is externally screw-threaded, so that it may be readily attached to or separated from the bit at the will of the operator.

K indicates a handle or cross-piece inserted through an eyelet in the top of the stem, whereby the bit may be operated, as usual. The tripod head is not essential, but only a suitable kind of connecting-piece.

By making the piece A of sheet metal its cutting-edge may be kept sharpened by the use of a file during the life-time of the bit. If it were not for the uniform thickness of this part it would be necessary to have it heated, beaten out, and retempered, like a plowshare, each time it became dull.

What I claim is—

The combination, with a semi-cylindrical frame and its blade having a concave edge on one side, of a fender secured to the frame and arranged so that its lower edge will form a continuation of the curve of the concave edge of the blade, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

THOMAS SMITH.

Witnesses:

JNO. F. SMITH,
J. B. BENNETT.