(No Model.)

F. BROWN.

EARTH AUGER.

No. 291,977. Patented Jan. 15, 1884.

Fig. 1.

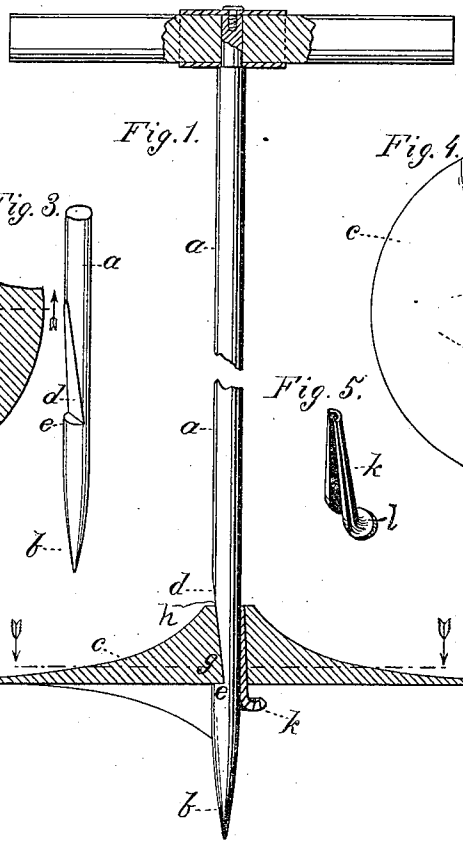


Fig. 2.

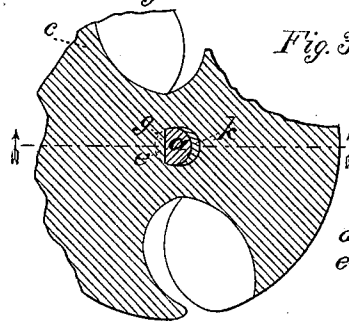


Fig. 3.

Fig. 4.

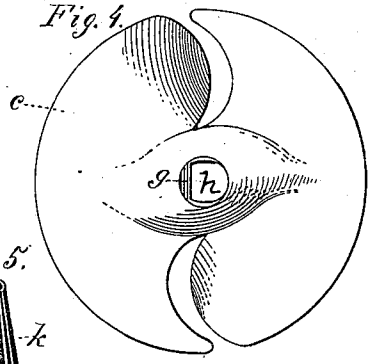


Fig. 5.

Fig. 6.

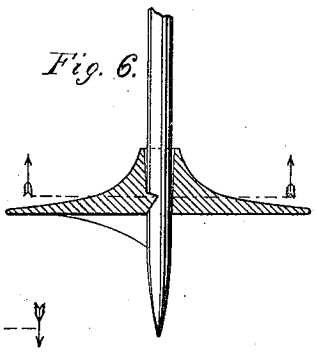


Fig. 7.

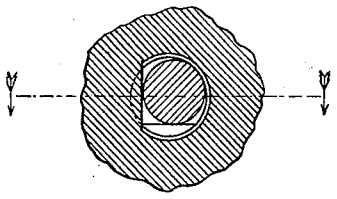
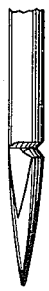


Fig. 8.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK BROWN, OF CHAGRIN FALLS, OHIO.

EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 291,977, dated January 15, 1884.

Application filed July 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANK BROWN, a citizen of the United States, and a resident of Chagrin Falls, in the county of Cuyahoga and State of Ohio, have invented a new and valuable Improvement in Earth-Augers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of this invention, showing a vertical section of the cutting-disk and wedge. Fig. 2 is a cross-section taken through the line on Fig. 1, looking downward. Figs. 3, 4, and 5 are details showing the several parts of the invention, and Figs. 6, 7, and 8 are detail views of a modification of the same.

This invention has relation to improvements in earth-augers; and it consists in the construction and novel arrangement of parts as will be hereinafter more fully set forth, and particularly pointed out in the claim appended.

In the accompanying drawings, the letter *a* designates the stem of the auger or digger, and *b* its point, above which, at the proper distance to receive the blade or cutting-disk *c*, is made a bevel-wall recess or notch, *d*, of elongated form, having at its base a shoulder-bearing, *e*. The disk or cutter *c* is cast with an inwardly-projecting bearing, *g*, in its eye *h*, said beveled bearing having its greatest projection at the lower end of the eye, so that in casting the disk the pattern can be easily drawn from the sand. The beveled bearing *g* is formed with its inclination corresponding to that of the recess or notch *d* of the stem, so that when the eye of the disk is placed in position on the stem the bearing *g* will engage the inclined wall of the recess *d*. In order to fasten the parts together when in this position, a concave wedge or key, *k*, is applied between the eye and the stem, engaging the latter on the opposite side from the recess or notch *d*. This key *k* is semi-cylindrical in form, and tapers from the lip *l* to its opposite end at a wedging angle.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

The earth-auger described, having in its stem *a* the elongated bevel-wall recess *d*, to receive the hub of the blade *c*, and in the eye *h* of the blade the inwardly-projecting inclined bearing, having its greatest projection at the lower end of the said eye, and designed to be wedged against the bevel-wall recess of the stem by means of the semi-cylindrical key *k*, which tapers at a wedging angle from the lip *l*, all constructed and adapted to operate substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK BROWN.

Witnesses:
A. L. PRATT,
W. A. UPHAM.