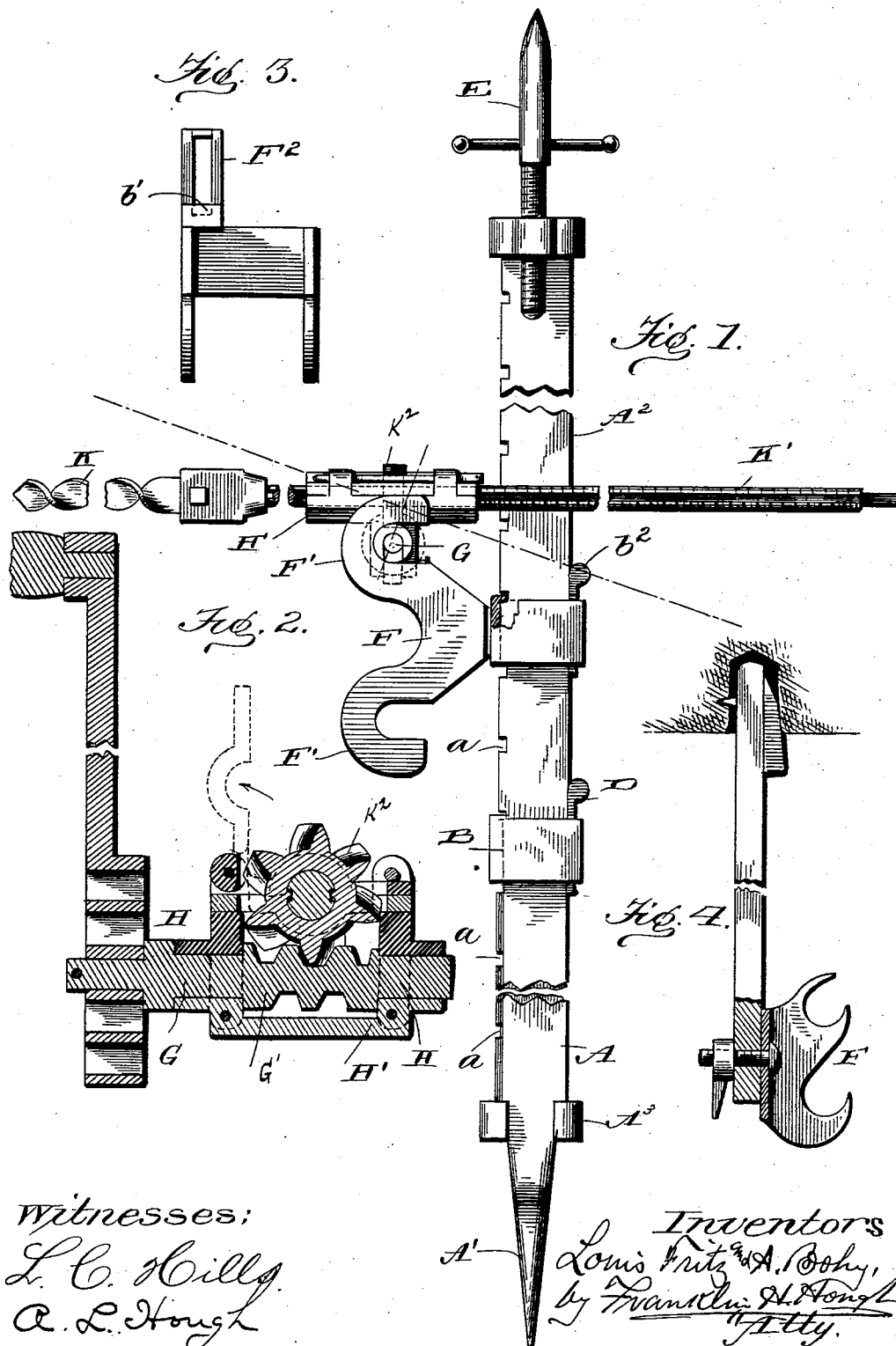


(No Model.)

L. FRITZ & A. BOHY.
DRILLING MACHINE.

No. 564,879.

Patented July 28, 1896.



Witnesses:
L. C. Hilley
A. L. Hough

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Atty.

UNITED STATES PATENT OFFICE.

LOUIS FRITZ AND ALFRED BOHY, OF WHAT CHEER, IOWA.

DRILLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 564,879, dated July 28, 1896.

Application filed May 5, 1896. Serial No. 590,365. (No model.)

To all whom it may concern:

Be it known that we, LOUIS FRITZ and ALFRED BOHY, citizens of the United States, residing at What Cheer, in the county of Keokuk and State of Iowa, have invented certain new and useful Improvements in Drilling-Machines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in drilling-machines, and especially to a device for boring in rock; and the invention has for its object to produce a machine of this character in which the auger may be removably held to an adjustable bracket held upon a standard having a tightening-screw at one end whereby the standard may be securely held to the bottom and top of the tunnel in the mine, and by means of a crank and worm-shaft, which latter meshes with a pinion on the auger-shank, the auger may be operated, the worm-shaft having two pivotal portions, and the shaft thereof forming the bearings which are removably held in the bracket-arms.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be hereinafter more fully described, and then specifically defined in the appended claim.

We clearly illustrate our invention in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of an auger boring-machine. Fig. 2 is a sectional view through the threaded box carrying the drill. Fig. 3 is a detail view of the bracket designed to hold the auger. Fig. 4 is a detail view of a modification.

Reference now being had to the details of the drawings by letter, A designates the lower of the adjustable portions of the standard, which is pointed at A' and is provided with

a collar B, holding the said lower section to the upper portion A². The upper portion of the section A² has also the fingers A³, which hold the lower portion of the standard A² to the section A. A series of notches *a* are disposed along one edge of the section A², into which a projecting edge of the collar B is designed to engage, and held therein by means of a wedge D. The upper end has a tightening-screw E of well-known construction, and F is the bracket, having arms F', which form two holders for the shaft G, which is journaled at H H on the box H'. One side of the bracket is extended and formed into a sliding collar F², as best seen in Fig. 3 of the drawings, this collar being adapted to fit over and be adjustable on the standard-section A², an edge *b'* being adapted to be held in one of the notches on the edge of standard A² by means of a wedge *b*².

The auger K has a screw-threaded shank portion K' and has keyed thereto a pinion which meshes with the worm, as seen, and the top of the box is hinged to the box, so that the bearings may be accessible.

The pivoted top to the box in which the screw-threaded auger or drill works is screw-threaded as well as the bottom of the box, and the drill is caused to be fed through by the pinion thereon turning the threaded portion of the drill through the threaded box, while the pinion remains stationary, with the key working in the slot in the shank portion of the drill.

In Fig. 4 is shown the manner of attaching the adjustable bracket when one end of the support is wedged in a hole in the rock.

Having thus described our invention, what we claim to be new, and desire to secure by Letters Patent, is—

In a drilling-machine, the combination with the extensible standards A and A², one of which has a notched edge, of an integral collar B on the standard A through which the notched standard works, a projecting edge of said collar designed to be seated in the said notches, a wedge D for holding the said collar in a notch, of a collar F² having secured on one side thereof, a bracket, and mounted on the standard an inwardly-projecting edge on collar F², a wedge *b*², of the curved arms F', the stub-shaft having its bearing portions

mounted in a casing held in the said curved
arms, of the stationary pinion, the screw-
threaded shank K' of the bit, working through
said pinion, and the threaded casing having
5 a pivoted cover in which the said shank por-
tion is mounted, substantially as shown and
described.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

LOUIS FRITZ.
ALFRED BOHY.

Witnesses:

GEO. T. BROWN,
C. N. BROWN.