

# W.<sup>m</sup> H. Stone. Well Auger

116883

Fig. 1

PATENTED JUL 11 1871

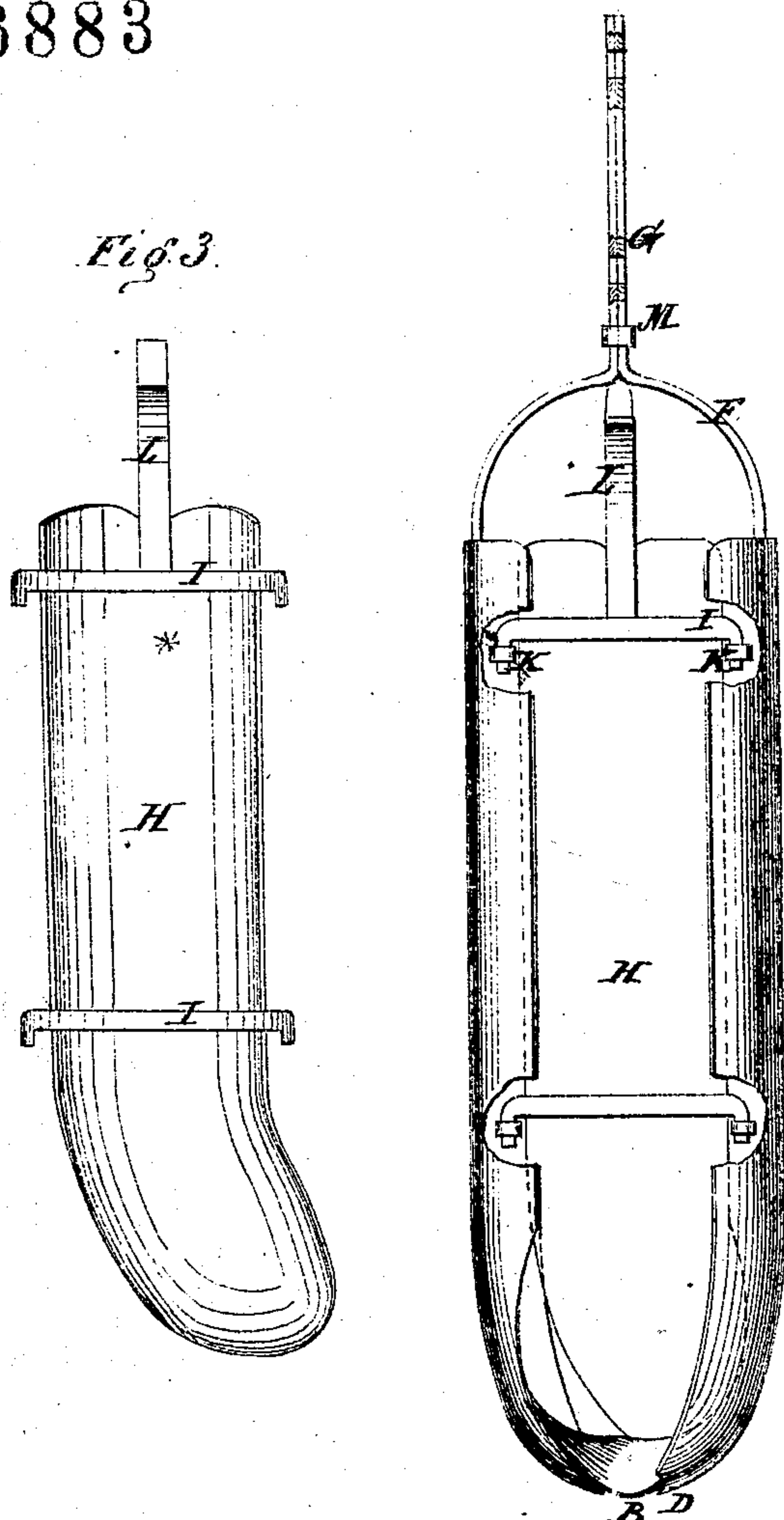


Fig. 3

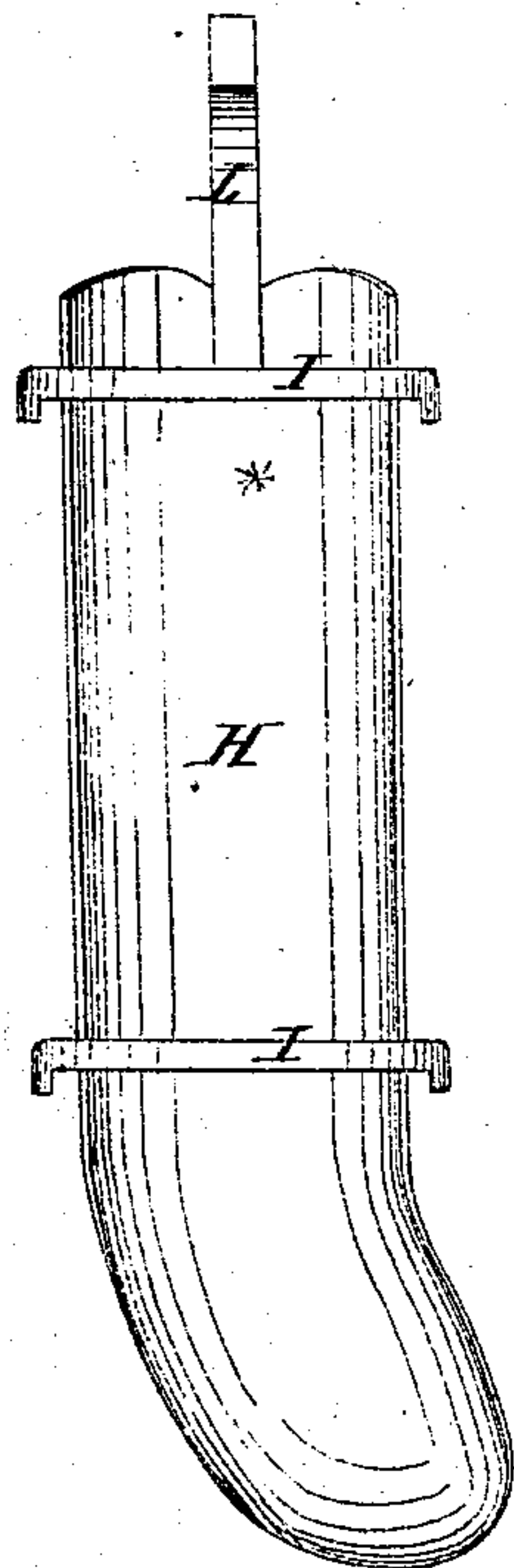


Fig. 4

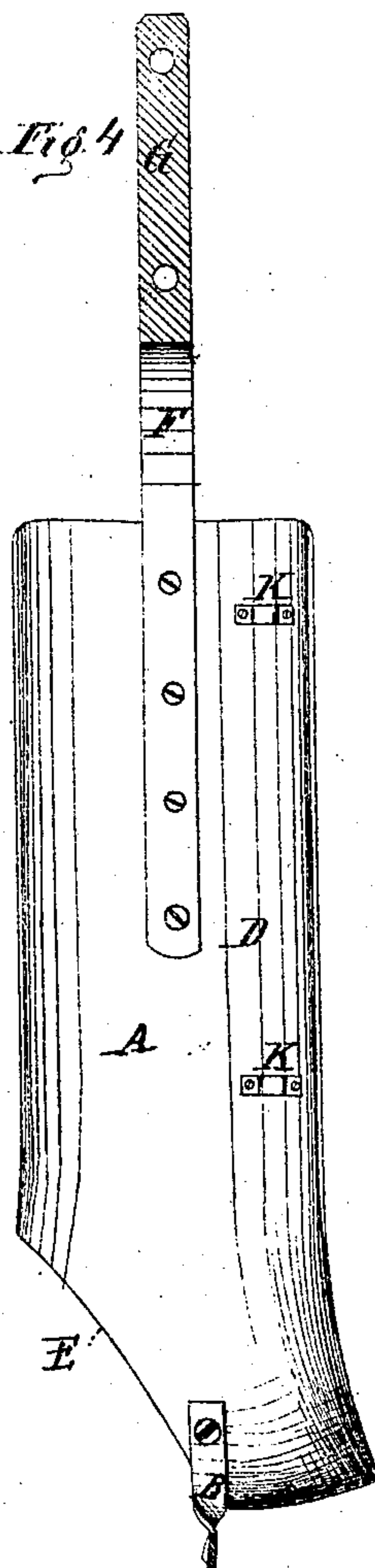


Fig. 2

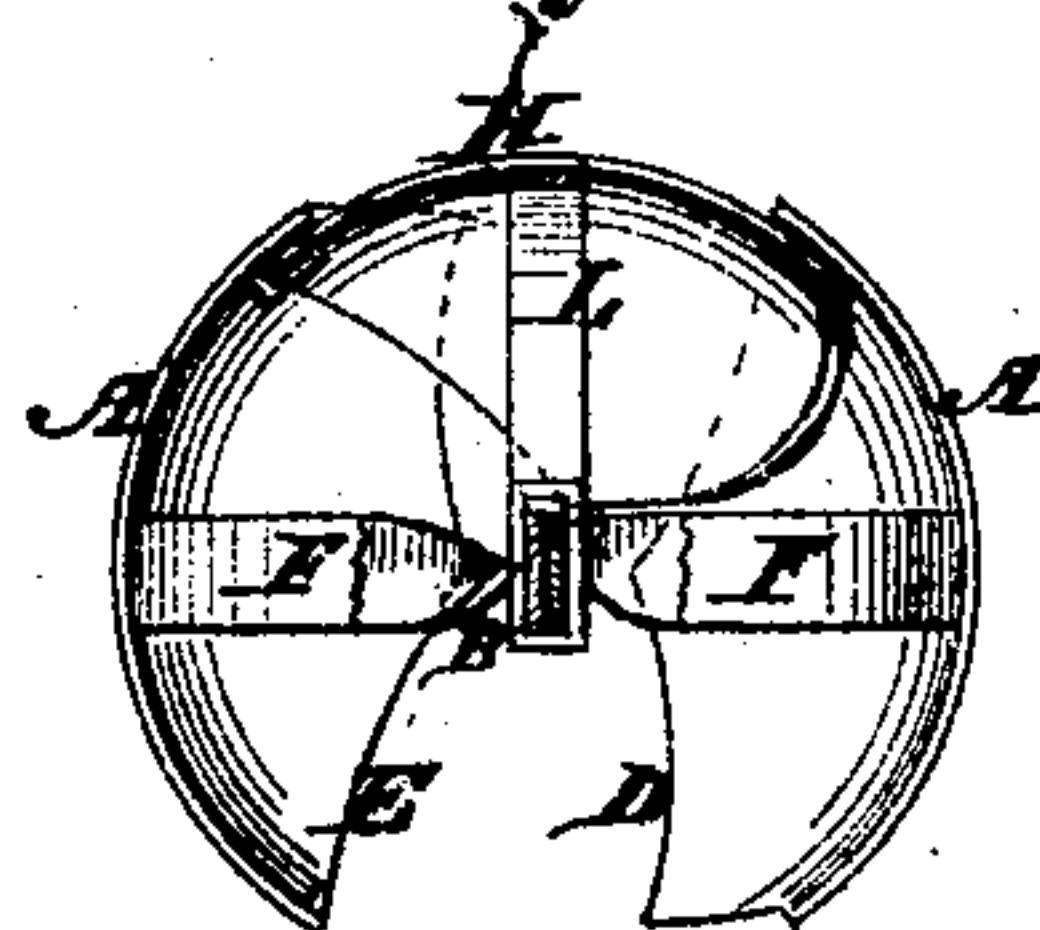


Fig. 5



Witnesses:

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PER

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# UNITED STATES PATENT OFFICE.

WILLIAM H. STONE, OF PATTONSBURG, MISSOURI, ASSIGNOR TO HIMSELF AND  
NEWTON J. SMITH, OF OMAHA, NEBRASKA.

## IMPROVEMENT IN WELL-AUGERS.

Specification forming part of Letters Patent No. 116,883, dated July 11, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM H. STONE, of Pattonsburg, in the county of Daviess and State of Missouri, have invented a new and Improved Well-Auger; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention consists in improving well-augers, as hereinafter fully described and subsequently pointed out in the claim.

Figure 1 is a side elevation of my improved well-auger with one only of the detachable side pieces applied, and Fig. 2 is a top view of the same. Fig. 3 is a detail view of a detachable plate used in connection with sectional tube. Fig. 4 is a detail plan view of the sectional plates. Fig. 5 is a twisted bar forming the point.

Similar letters of reference indicate corresponding parts.

A represents two longitudinal sections of a tube of the same diameter or thereabout as the auger is to be, and of suitable length. They comprise in breadth about one-fourth or one-third of the circumference of the tube. The lower ends are bent inward nearly together, and connected by a twisted bar, B, which forms a point. From the said center to the edge on the side, in the direction in which the auger turns in boring, the ends of the said plates A are shaped into cutting-lips D nearly tangential to the center, and at the opposite sides the corners are cut off, as shown at E, Fig. 4, to make room for the earth to flow into the auger. The upper ends of these two parts A are rigidly connected by suitable bent bars F to a shank or shaft, G, by which the instrument is to be turned. The plates or

sections A are made of sheet metal of any suitable kind, preferably steel, of which they may be made thinner than of other material and have the requisite strength, which is desirable, as they work easier and are lighter.

The instruments so constructed may be used with success in heavy clay earth, which has sufficient stiffness to be retained between the parts A for drawing out; but for boring sandy and other like earth, which would flow out between the parts A, I propose to employ, in connection with the said parts A, one or more detachable plates, H, shaped similarly to the said plates A, except the points, and arranged in any preferred way for detachable connection to said plates to inclose the open spaces between them. In this example the plate H—only one being shown—is fitted to lap plates A slightly at the edges inside, and it is provided with hooks I, which engage with eyebolts or loops K attached to the plates A, when the plate H, having been raised high enough, is dropped down lengthwise. The said plate is held in place against being forced upward by a spring, L, on the upper end, having one end attached to said plate and the other detachably confined between the shank and a band, M, on the shank, which is driven down tightly over the said end.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The plates A A, when their lower ends are curved into lips D D, bent nearly together and cut off at the corners E E, combined with the twisted bar B, constructed to form a point, as and for the purpose specified.

WILLIAM H. STONE.

Witnesses:

ROLLIN C. SMITH,  
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