

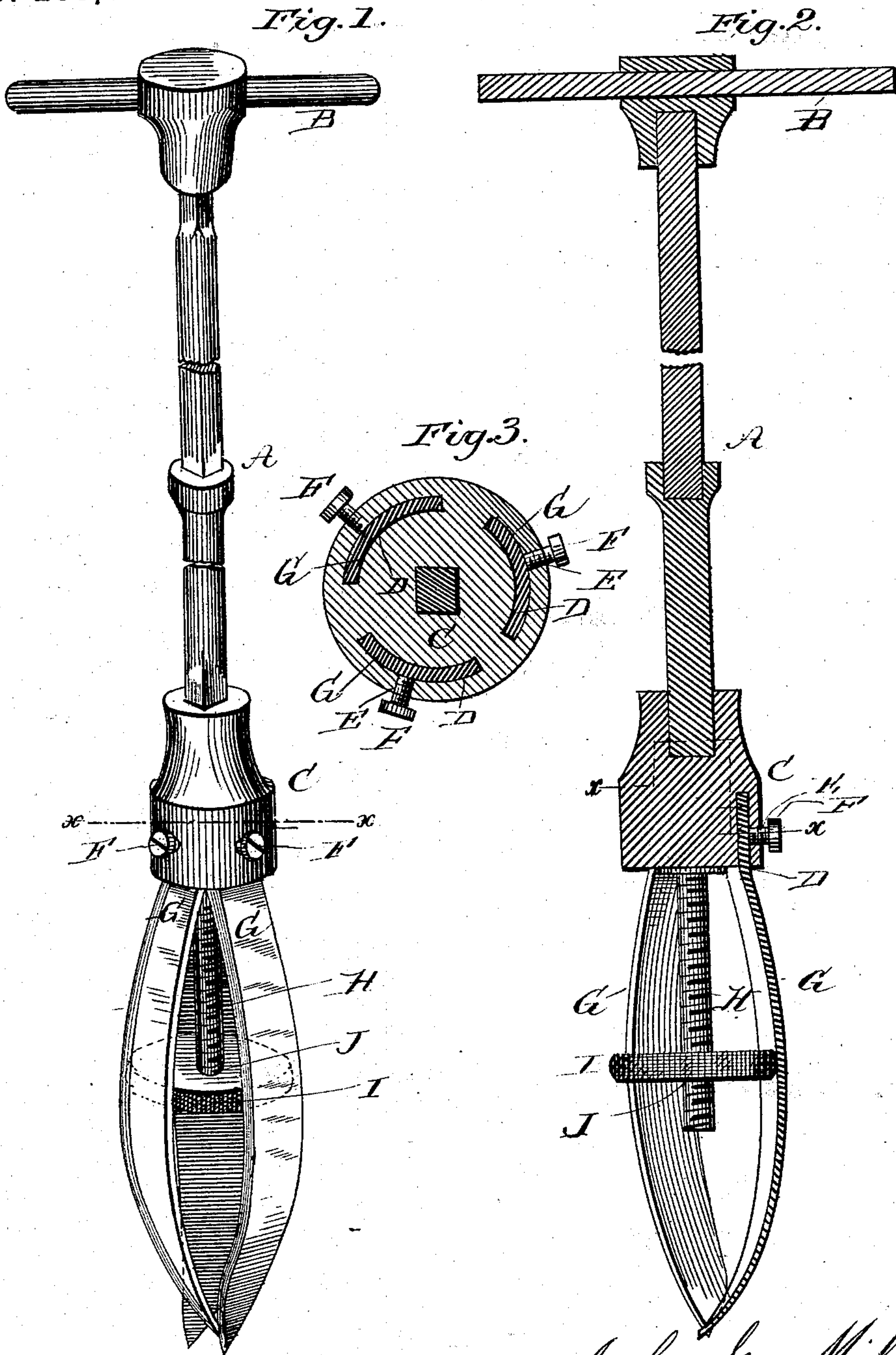
(No Model.)

J. E. MILES.

POST AUGER.

No. 283,010.

Patented Aug. 14, 1883.



WITNESSES:  
*Fred. G. Dieterich*  
*Arthur L. Morsell*

*John E. Miles.*  
INVENTOR.  
*By Louis Bagger & Co.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN E. MILES, OF MOORESVILLE, TEXAS.

## POST-AUGER.

SPECIFICATION forming part of Letters Patent No. 283,010, dated August 14, 1883.

Application filed May 17, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. MILES, of Mooresville, in the county of Falls and State of Texas, have invented certain new and useful Improvements in Post-Augers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved post-auger. Fig. 2 is a longitudinal vertical section of the same; and Fig. 3 is a cross-section on line *x x*, Figs. 1 and 2.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of post-augers which consist of a number of concavo-convex cutting-blades secured upon the lower end of a shaft having a cross-handle at its upper end, and provided with means for expanding the said blades for the purpose of boring holes of different sizes; and it consists in the detailed construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the shaft, having the cross-handle B upon its upper end, and having a block, C, fastened upon its lower end, which block has a number of segmental recesses or sockets, D, concentrically arranged around its center, opening from its lower end, all the sockets forming segments of the same circle. A number of transverse perforations, E, pass from the outside of the block radially into the periphery of each of these sockets, and are screw-threaded for the reception of a number of set-screws, F, the number of perforations and of screws corresponding to the number of sockets. These screws serve to secure the blades G, the upper ends of which form concavo-convex cylinder-segments, concentric with and of the same width as the sockets, into which they fit, while their lower portions are concavo-convex, and curved or bulging at their middle, so that they may cut into the sides of the hole while boring with their sharpened edges, each

blade having one edge sharpened. A screw-threaded rod, H, extends from the center of the lower end of the block, and a disk, I, having a central screw-threaded perforation, J, and being circular in shape, fits and turns upon this screw-threaded rod, bearing with its edge or periphery against the inner sides of the blades, so that by turning the disk either up or down upon the rod, moving it farther off or nearer to the bulge of the blades, the latter may be expanded or again contract by their springiness, boring a larger or smaller hole, as desired. It will be seen that by having the circular disk between the blades it will serve to raise the dirt bored or cut loose by the blades, which is worked in boring upon the top of the disk, where it rests, and may be raised out of the hole. It will also be seen that by having the upper ends of the blades fitting into the sockets in the block upon the end of the shaft, the blades may be removed for the purpose of sharpening them, or if any accident should happen to them; and the trouble generally experienced by this class of earth-augers, in which the blades usually are fastened in recesses in the sides of the block or ring upon the lower end of the shaft—viz., the filling up of the recesses with dirt—is avoided by this construction, the ends of the blades filling the sockets completely, preventing the dirt from working up into them, which is also prevented by the sockets being covered upon all sides, excepting at the lower end, where the blades fill them up.

I am aware that earth-augers have been made with detachable curved cutting-blades, and I am likewise aware that the expander-disk is not broadly new, and I do not wish to claim either of these features, broadly; but

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, in a post-auger, of the socketed block, the screw-threaded rod extending from the center of the lower end of the block, the circular expander-disk fitting and turning with its central female threaded perforation upon the rod, and the concavo-convex curved blades, as and for the purpose shown and set forth.

2. The herein-described post-auger, consisting—



ing of the shaft, the cross-handle, the socketed  
block, the concavo-convex curved blades, the  
set-screws securing the blades in their sock-  
ets, the screw-threaded rod extending from  
5 the center of the lower end of the block, and  
the expander-disk fitting and turning with its  
female threaded central perforation upon the  
screw-threaded rod, as and for the purpose  
shown and set forth.

In testimony that I claim the foregoing as 10  
my own I have hereunto affixed my signature  
in presence of two witnesses.

JOHN E. MILES.

Witnesses:

W. W. DAVIS, Jr.,  
J. B. APPLEBY.