C. H. ROBINSON.

WELL-BORING APPARATUS.

No. 193,348. Patented July 24, 1877.

Fig. 1.

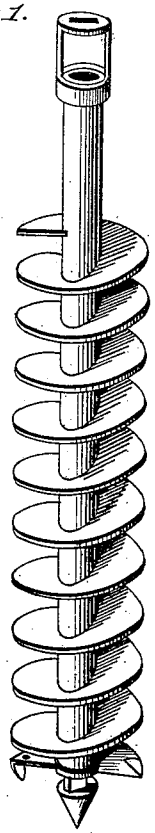
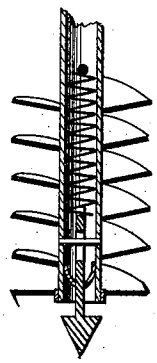


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

CHARLES H. ROBINSON, OF MEMPHIS, TENNESSEE.

IMPROVEMENT IN WELL-BORING APPARATUS.

Specification forming part of Letters Patent No. **193,348**, dated July 24, 1877; application filed June 1, 1877.

To all whom it may concern:

Be it known that I, CHARLES H. ROBINSON, of Memphis, in the county of Shelby and State of Tennessee, have invented certain Improvements in Well-Boring Apparatus, of which the following is a specification:

My invention relates to the screw-flange of the auger, the plane of which is inclined to the axis of the supporting-shaft at an angle of twenty degrees from a perpendicular, leaving the upper surface of the flange concave. This inclination or concavity of the screw-flange is intended to afford a more secure base or support for the earth as it accumulates within the space between the screw-flanges, and by its concave form to afford a better security against the tendency of the earth, accumulated within the spaces, to fall outward against the walls of the well while the auger is being withdrawn after each boring, thus avoiding great friction and frequent obstructions. This concavity of the screw-flanges also facilitates the retention, between said flanges, of gravel, loose earth, &c., in the case of subaqueous borings, while the auger is being withdrawn through the water after each boring.

Figure 1 is the elevation of the auger, showing peculiar inclination of screw-flange. Fig. 2 is a sectional detail view.

I claim as my invention—

The concave screw-flange of the auger, as hereinbefore described.

CHARLES HAWTHORNE ROBINSON.

Witnesses:

T. W. BROWN,

E. C. BROOKSHIRE.