

M. D. HARRIS.
WELL AUGER.
APPLICATION FILED NOV. 23, 1911.

1,036,230.

Patented Aug. 20, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

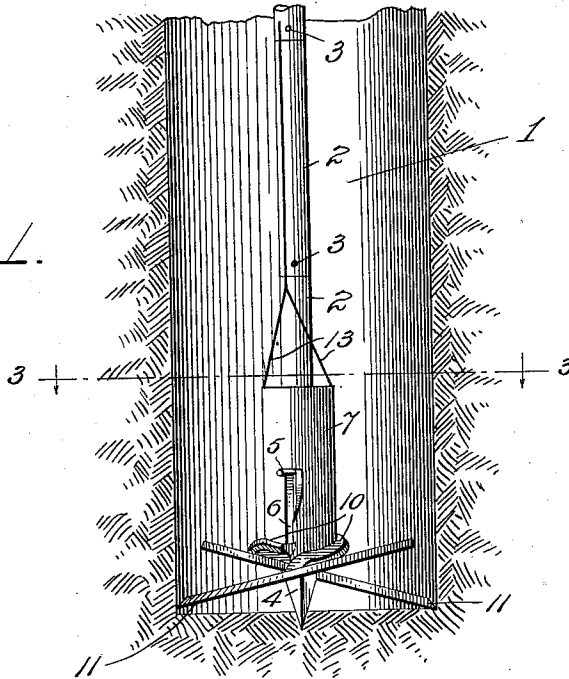


FIG. 3.

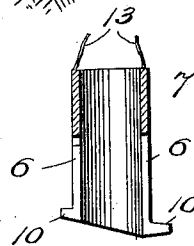
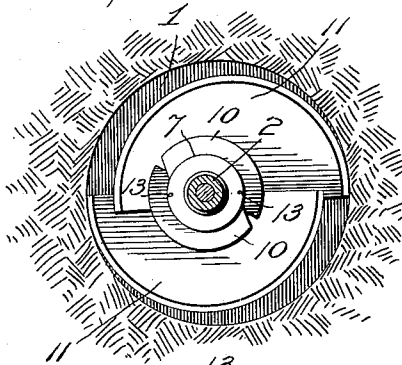


FIG. 5.

WITNESSES

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2 SHEETS—SHEET 2.

FIG. 2.

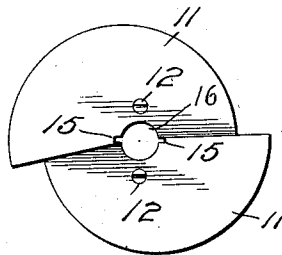
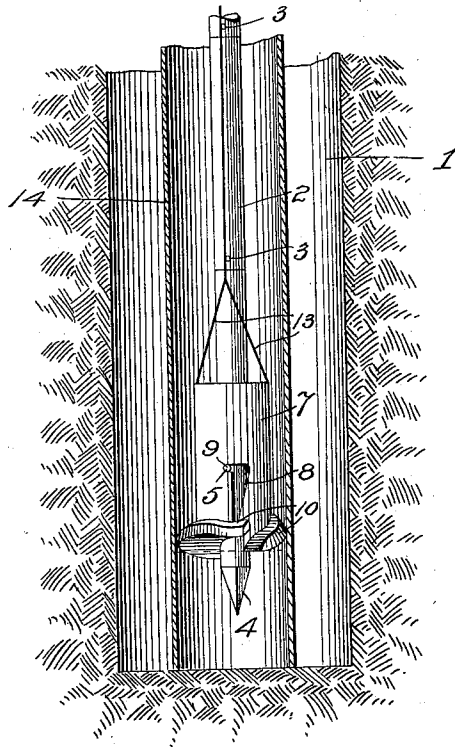
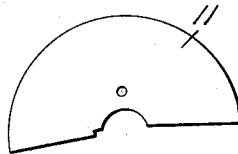


FIG. 4.

FIG. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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WELL-AUGER.

1,036,230.

Specification of Letters Patent.

Patented Aug. 20, 1912.

Application filed November 23, 1911. Serial No. 661,956.

To all whom it may concern:

Be it known that I, MARY D. HARRIS, a citizen of the United States of America, residing at Piggott, in the county of Clay and State of Arkansas, have invented certain new and useful Improvements in Well-Augers, of which the following is a specification.

This invention relates to well augers and one of the principal objects of the invention is to provide reliable and efficient means for boring a well and for removing the dirt from the well quickly and to provide means whereby the same tool may be used for cleaning out the well after the curbing has been placed in position.

Another object of the invention is to provide a well auger having two boring tools, one of which is removable from the other in order that the well may be bored with one tool and after this tool has been removed, the other tool may be used for insertion in the curbing for cleaning out the well or for boring a hole below the curbing.

These and other objects may be attained by means of the construction illustrated in the accompanying drawings, in which:—

Figure 1 is a view in elevation of a well auger made in accordance with my invention and shown at the bottom of a well; Fig. 2 is a similar view in which the well boring tool has been removed and the smaller auger in place within the curbing; Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 1 looking in the direction indicated by the arrows; Fig. 4 is a bottom plan view of the auger blades removed from the tool; Fig. 5 is a vertical sectional view through the center of the sleeve and showing the small auger integral with the lower end thereof; and Fig. 6 is a top plan view of one of the large auger bits or plates.

Referring to the drawings, the numeral 1 designates a well and 2 are the sections of a shaft, said sections being secured together by means of screws or pins 3. At the lower end, said shaft is provided with a point or anchor 4. Near the lower end of the sectional shaft, pins 5 project from the opposite sides thereof to move in slots 6 formed in opposite sides of a sleeve 7 mounted to move upon the shaft. The slots 6 are each provided with a cut-away portion 8 at one side thereof and at the top of each slot is a

branch or offset portion 9 in which the pins may be locked to prevent vertical movement of the sleeve on the shaft. At the lower end of the sleeve 7 auger bits 10 are provided, said auger bits being preferably integral with the sleeve 7.

The large auger bits 11 are secured to the under face of the bits 10 by means of screws 12 and are readily removable, whenever desired by withdrawing said screws. Secured to the upper end of the sleeve 7 are ropes or wires 13 by means of which the sleeve with the auger bits connected thereto may be removed from the well carrying the dirt on the upper sides of the plates. When it is desired to place the curbing 14 in the well and to clear the interior or to bore below the curbing, the plates 11 are removed and the tool is inserted, as shown in Fig. 2.

It will be obvious that by turning the shaft partially toward the left that the pins 5 will pass into the vertical portions of the slots 6 and permit the sleeve to be drawn upward and to accomplish this purpose recesses 15 are formed in the plates 11 at opposite sides of the shaft bearing 16.

From the foregoing, it will be obvious that my invention is simple in construction, may be used for the purpose of boring a well and of clearing the curbing after the well has been bored by a simple operation of removing the larger plates from the auger, thus facilitating the labor of boring a well and saving time in the operation.

I claim:

1. A well auger comprising a shaft, a sleeve mounted to move upon the shaft, removable auger bits secured to said sleeve and integral auger bits connected to said sleeve.

2. A well auger comprising a shaft provided with projecting pins, a sleeve provided with oppositely disposed slots for said pins, an integral auger at the lower end of said sleeve, removable auger bits connected to said sleeve, and means for withdrawing the sleeve.

3. A well auger comprising a shaft, a sleeve mounted to slide on said shaft, integral auger bits at the lower end of said sleeve, larger auger bits removably secured to said sleeve, and means for preventing the vertical movement of said sleeve on said shaft, said sleeve being provided with slots

whereby the same may be withdrawn from the said shaft.

4. A well auger comprising a shaft, a sleeve mounted on the shaft and two sizes
5 of auger bits connected to the sleeve, one pair of said auger bits being removable therefrom.

In testimony whereof I affix my signature in presence of two witnesses.

MARY D. HARRIS.

Witnesses:

J. L. BRADSHAW,
J. R. BURKS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."