

(No Model.)

J. M. FISHBACK.
WELL OR POST AUGER.

No. 545,685.

Patented Sept. 3, 1895.

Fig. I.

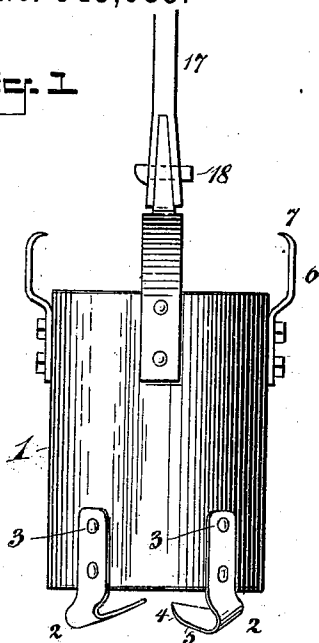


Fig. III.

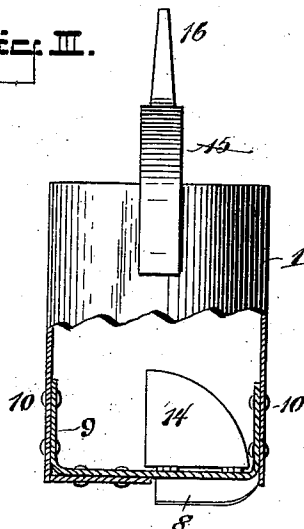


Fig. V.

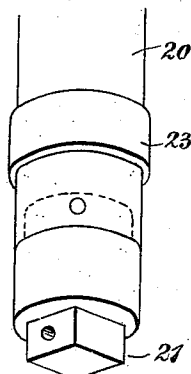


Fig. IV.

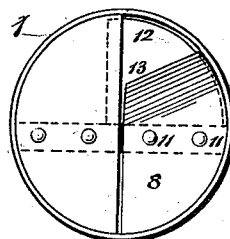


Fig. II.

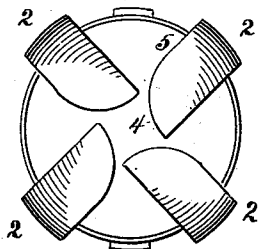


Fig. VI.

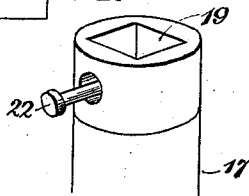
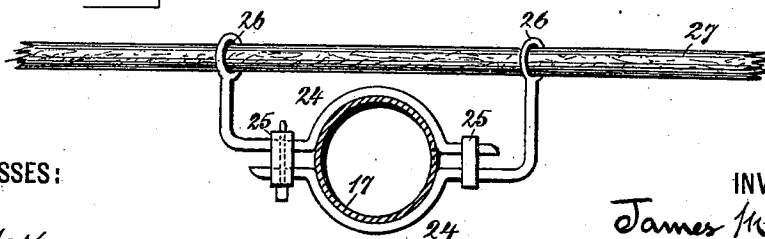


Fig. VII.



WITNESSES:

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UNITED STATES PATENT OFFICE,

JAMES M. FISHBACK, OF GOLDSMITH, INDIANA.

WELL OR POST AUGER.

SPECIFICATION forming part of Letters Patent No. 545,685, dated September 3, 1895.

Application filed March 11, 1895. Serial No. 541,226. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. FISHBACK, a citizen of the United States, residing at Goldsmith, county of Tipton, State of Indiana, have invented certain new and useful Improvements in Well or Post Augers, of which the following is a specification.

My invention relates to an improvement in augers or devices for boring post-holes or wells, and is particularly constructed to operate upon different kinds of soil, and has for its object to simplify the construction of augers, making the least possible mechanism to accomplish the desired result.

The particular construction of my invention relates to the formation of the cutters and reamers and their relation to the band or bucket, and also the method of constructing a valve in the lower part of the bucket for the purpose of boring in sand, whereby the sand will be thrown into the bucket and retained there, so that it can be withdrawn from the hole.

My invention relates to other novel features hereinafter particularly referred to, and pointed out in the claim.

Referring to the accompanying drawings, which form a part of this specification, Figure I is a side elevation of my device. Fig. II is a bottom view thereof. Fig. III is a sectional view showing the sand-operating valve. Fig. IV is a bottom plan view of the same. Figs. V, VI, and VII represent the operating apparatus.

1 is the bucket or band of my auger, to which are attached the cutters 2 by means of bolts or rivets 3. These cutters, as it will be noticed, are flared or bent outwardly, so that they will describe a larger circle than the bucket, thereby boring the hole larger and preventing any binding or wedging of the tool. These cutters 2 extend under the bucket toward the center thereof, their edges being rounded, as shown at 4, and also bent up higher than the straight edge 5, as seen in Fig. I, so that they will more readily cut the soil, and also to assist in throwing the dirt up into the bucket.

6 are reamers attached to the top of the bucket, which extend outwardly and upwardly therefrom. It will be noticed that these reamers extend somewhat farther out than the cutters, the object being to ream the hole

out to any desired diameter. To accomplish this, of course, reamers of different sizes are used. The upwardly-projecting portion of this reamer 7 is slightly curved, so that as the soil is cut away it will be thrown back into the bucket and the progress of the boring-tool will not be impeded. I provide, also, as shown in Figs. III and IV, a bottom 8 and hold it in place by means of the bracket 9, which is secured to the inside of the bucket by rivets 10. The bottom 8 is also riveted to the bracket by means of rivets 11, and it is provided with a cut-away portion 12, as shown in Fig. IV. The edge 13 of this bottom is bent down, as shown in Fig. III, for the purpose of giving it a cutting-edge, and also to convey the material up into the bucket.

In order to prevent sand from leaking out when the bucket is withdrawn from the hole, I provide a valve or flap 14, which is hinged to the bottom 8 over the opening 12, and is free to open upwardly to permit the sand to enter the bucket, so that during the operation of the tool the sand is constantly forced up into the bucket, but when the tool is being withdrawn the valve will drop back over the opening and the load can be removed intact.

15 is a bail-hook, which is secured to the sides of the bucket, and the top of this bail-hook projects upwardly and is provided with a wedge-shaped piece 16, to which is secured the shaft 17 by means of the key 18. The lower end of this shaft 17 is split and straddles the wedge-shaped piece, so that a positive coupling is made. The upper end terminates in a socket 19. I also provide an extension 20 of the said shaft, having a tenon 21, which is adapted to fit into the socket 19 and secured therein by means of pin 22. When the pin 22 is in place, a ring 23 is slipped down over it, thus locking it firmly in position. I regard these features as important points in my invention, as they render the auger indefinitely extendible. I also provide clamps 24, semi-circular in shape and adapted to embrace the shaft 17 or its extension 20, and to be secured in such position by means of adjustable binding-straps 25. The clamps terminate at their outer ends in eyes or openings 26, through which a lever 27 can be placed for securing the necessary means for driving the shaft

either manually or for attachment of horse or other power.

Having thus described my invention, the following is what I claim and desire to secure by Letters Patent:

5 A well or post auger provided with a bucket having cutters 2 extending downwardly and outwardly therefrom and then inwardly and upwardly and terminating at points approxi-
10 mately near the center of the bucket, and provided with rounded edges 4 in combination with reamers constructed and arranged substantially as shown and described, with

a bottom having an opening extending from one side of the bucket to a point approxi- 15 mately near the center and provided with a downwardly flared edge and a hinged valve secured to the bottom of the bucket and adapted to close the opening, and adapted to operate substantially as and for the purposes 20 set forth.

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Witnesses:

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