

E. R. SUMNER.
 Improvement in Post-Hole Diggers,
 No. 132,607. Patented Oct. 29, 1872.

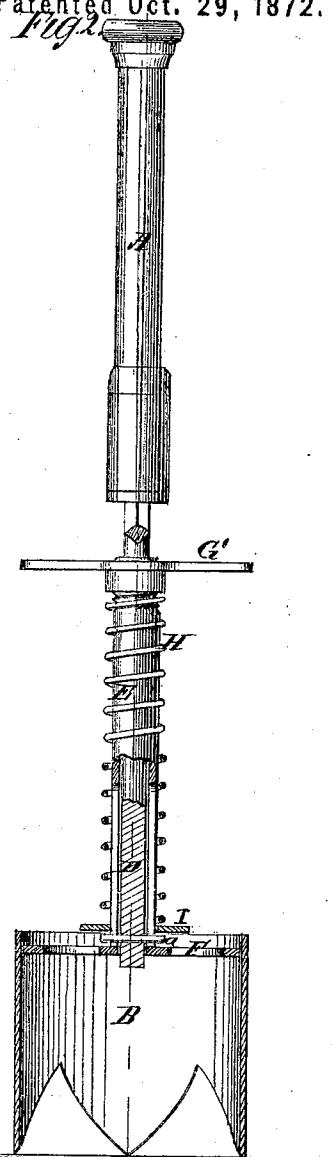
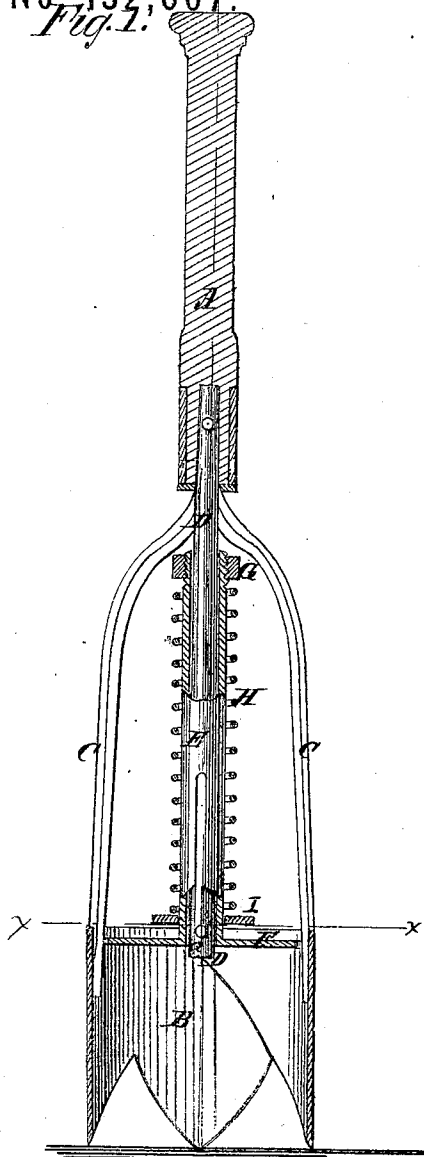
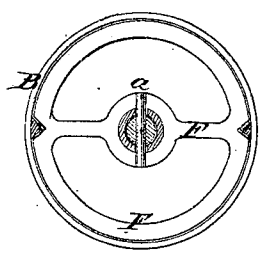


Fig. 3.



Witnesses:
 John Becker.
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UNITED STATES PATENT OFFICE.

EDWARD R. SUMNER, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN POST-HOLE DIGGERS.

Specification forming part of Letters Patent No. **132,607**, dated October 29, 1872; antedated October 26, 1872.

To all whom it may concern:

Be it known that I, EDWARD R. SUMNER, of Freeport, in the county of Stephenson and State of Illinois, have invented a new and Improved Post-Hole Digger; 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.

Figures 1 and 2 are sectional elevations of a post-hole digger, showing the application of my improvements; and Fig. 3 is a transverse section of the same taken in the line *x x*, Fig. 1.

Similar letters of reference denote the same parts in the several figures of the drawing.

My invention has for its object to improve the operation of the post-hole digger for which Letters Patent of the United States were granted to me August 29, 1871, No. 118,560. The invention embraced in said patent consists in forming the blade of the digger from a single piece of metal bent into circular form, and having sharpened teeth on its lower edge to enable it to move freely through earth and roots. So far as this feature is concerned the device operates in the most satisfactory manner when forced into the earth, but when removed therefrom considerable difficulty is encountered in discharging the load from the interior. To overcome this difficulty my present improvement consists in combining a discharging-disk with the circular toothed digger so that the load of earth taken up by the latter may be quickly and conveniently discharged.

I am aware that discharging-pushers have been heretofore employed in post-hole diggers, but the construction of the latter is such that the pusher must be forced completely through it to discharge the dirt. By my construction of the digger, however, it is only necessary to extend the pusher to or a little below the angles formed by the adjoining teeth in order to

discharge the dirt. When the latter has been pushed from the angles it drops out of the circular digger by its own gravity, while the pusher, sweeping along the diagonal edges of the teeth, clears them effectually of roots and other obstructions.

In the accompanying drawing, B is the blade of the digger or spade formed of a single piece of metal bent into circular form, and having sharpened teeth on its lower edge, as described in my former patent, above referred to. A is the handle, to which the blade is connected by the branching arms C, as shown. D is a guide-rod descending from the handle at the junction of the arms C, and E is a tube fitting over such rod and carrying the pusher F, which enters the upper end of the circular digger. The pusher F is held at the upper end of the spade by a spiral spring, H, which surrounds the tube between a nut, G, at its upper end and a washer, I, at its lower end, which washer rests upon a pin, *a*, passing through the guide-rod D. The tube is slotted upon opposite sides to permit the movement of the pin through it when the pusher is forced down and retracted by the spring. G' is a cross-piece formed upon the nut G at the upper end of the tube, to which the operator applies his foot in discharging the load from the spade. The foot piece can be unscrewed to remove it from the tube, or screwed up to regulate the tension of the spring.

Having thus described my invention, what I claim is—

1. The spring-pusher F, combined with the circular toothed blade B of the digger, so that when operated it shall sweep along the diagonal edges of the toothed blade, substantially as described, for the purpose specified.

2. The foot-piece G', adapted for adjustment upon the tube E, to regulate the tension of the spring H, substantially as described.

EDWARD R. SUMNER.

Witnesses:

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