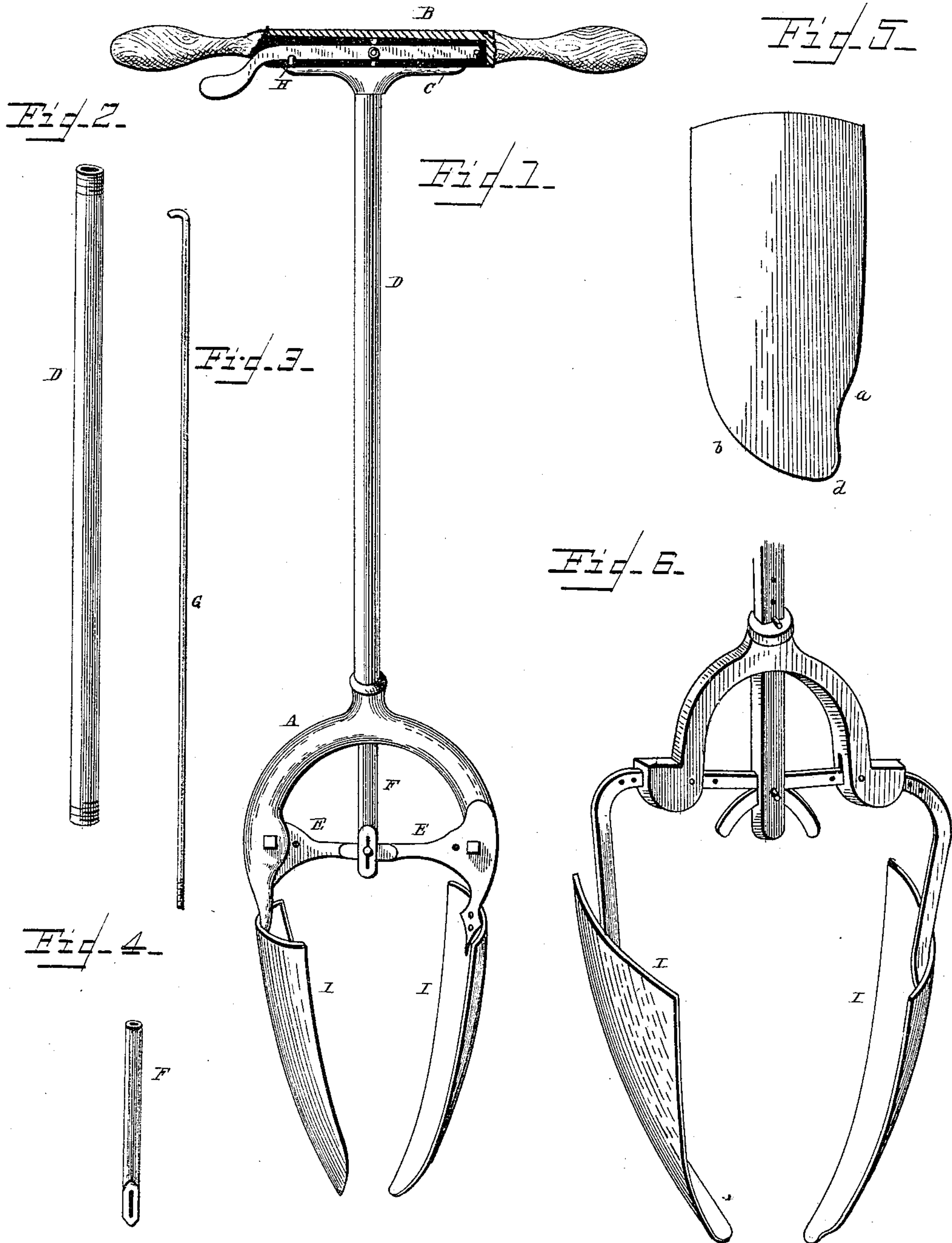


(No Model.)

G. W. SMITH.
POST HOLE AUGER.

No. 338,648.

Patented Mar. 23, 1886.



WITNESSES
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UNITED STATES PATENT OFFICE.

GEORGE W. SMITH, OF UNION CITY, INDIANA, ASSIGNOR OF ONE-HALF TO
J. J. DOWNING, H. REITENOUR, AND GEORGE U. REITENOUR, ALL OF
SAME PLACE.

POST-HOLE AUGER.

SPECIFICATION forming part of Letters Patent No. 338,648, dated March 23, 1886.

Application filed October 27, 1885. Serial No. 131,064. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. SMITH, a citizen of the United States, residing at Union City, in the county of Randolph and State of Indiana, have invented certain new and useful Improvements in Post-Hole Augers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention has relation to improvements in post-hole augers; and it consists in the construction, novel arrangement, and adaptation of devices, as will be hereinafter more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a side view of an auger constructed according to my invention. Fig. 2 is a view of the holder-tube. Fig. 3 is a view of the inner rod for manipulating the blades. Fig. 4 is a view of the slotted connecting-rod. Fig. 5 is a view of one of the blade-blanks, and Fig. 6 is a view of a modification of the invention.

In the said drawings, A indicates a bracket having a central internally-threaded aperture, from which extend in opposite directions two outwardly and downwardly curved arms, terminating in bearing-wings which are provided with perforations.

B indicates the handle, to the under side of which is secured a bracket, C, having an internally-threaded aperture for the reception of the upper end of the vertical holder-tube D, and the lower end of this tube is screwed into the threaded aperture of the bracket A.

The handle B is recessed longitudinally for a portion of its length, to receive a finger-lever which is pivoted therein. This lever passes out of the recess at one end in a convenient location to be easily manipulated by the fingers of the operator, and the said recess communicates with the eye of the bracket C.

E E indicate two similar angular levers composed of a horizontal and a vertical branch. These levers are provided with bearing portions at their angles and a plurality of perforations, as shown, whereby the said levers may

be adjustably connected with the wings of the bracket A by means of a pin or bolt. The horizontal branches of these levers may be bent downwardly at their meeting ends and provided with perforations for the reception of a connecting-pin; but the connecting-pin is not in all cases essential.

F indicates a small connecting tube or rod, having its lower end slotted transversely for the passage of the inner end of the horizontal branches of the angular levers, and its upper or opposite end passes through the vertical aperture of the bracket A and into the vertical holder-tube, and is internally threaded for the engagement of the external threads on the lower end of the manipulating-rod G. This rod passes through the holder-tube, and is secured at its upper end to the finger-lever in the handle. Thus it will be seen that by manipulating the finger-lever the vertical branches of the angle-levers bearing in the bracket A may be separated from or drawn together, as desired, and consequently the blades thereon set to cut a hole of any desired diameter. The finger-lever is also provided with a latch or stop device, as H, arranged on the under side of the handle, to hold the said lever in the desired adjustment.

I indicates the shovel-blades, which are of a peculiar construction. These blades are of a general elliptical shape, with their lower ends bent to one side of the main axis of the said ellipse, the axis of the bent portions being at an angle of about forty-five degrees to the main portions. One edge of the blank is nearly plain, while the opposite longitudinal edge is slightly curved its entire length, with a curve of greater angular inclination near its lower end and in the direction of the plain edge, and the plain edge is curved inwardly, as at *b*, terminating in a point, *d*.

When the blades are properly formed and attached to the curved branches of the bracket A and brought to an operative position, the lower ends *d* rest side by side, while the upper or main portions are coincident; hence the lower portions of the shovels extend laterally about the same as do the upper portions, consequently causing the device to carry a greater amount than through the lower ends

coincided, instead of resting side by side, and the liability of the dirt falling from the shovels thereby prevented.

I am aware of Patent No. 182,367, for a weeding and transplanting implement, in which two blades are shown of angular form having outer extensions at their angles pivoted to the tubular body of the implement, and their inner horizontal branches engaged and moved by a spring-pressed rod connected with a pivoted lever in the handle, and therefore do not claim such devices, broadly.

Having thus described this invention, what I claim is—

1. The combination, with the vertical holder-tube, of the recessed handle, the under bracket having its eye communicating with the said recess, the branched bracket having the perforated bearings, the angular levers carrying the blades, the short connecting-rod slotted at its lower end, and the operating-rod connecting the slotted rod with the finger-lever in the handle, all arranged for joint operation substantially as specified.

2. A post-hole auger consisting of a bracket with divergent arms having perforated bearings, angular levers carrying blades at the lower ends of their vertical branches, a connecting-tube having a slotted end to receive the horizontal branches of the angular levers, and an operating-rod connecting the said slotted rod with a pivoted lever in the recessed handle, substantially as specified.

3. The combination, with the branched bracket and the angular levers carrying shovels, of the connecting-rod, the operating-rod, the pivoted finger-lever, and the latch for engaging the said lever to hold the blades in the desired position, substantially as specified.

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

GEO. W. SMITH.

Witnesses:

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CYRUS WOODBURY.