(No Model.)

F. E. KOHLER.

POST HOLE DIGGER.

No. 456,655. Patented July 28, 1891.

Fig. 1.

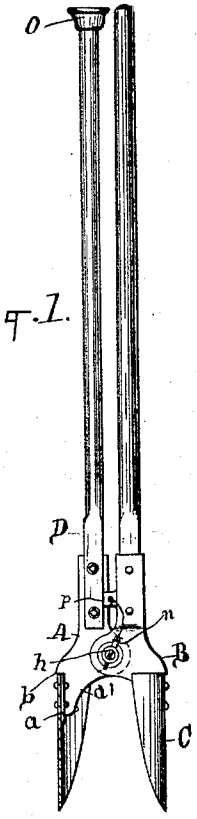


Fig. 2.

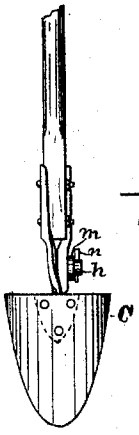


Fig. 3.

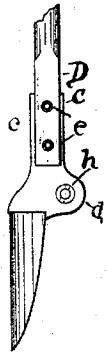
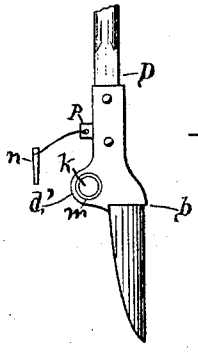


Fig. 4.



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UNITED STATES PATENT OFFICE.

FREDERICK E. KOHLER, OF CANTON, OHIO.

POST-HOLE DIGGER.

SPECIFICATION forming part of Letters Patent No. 456,655, dated July 28, 1891.

Application filed June 25, 1890. Serial No. 356,634. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. KOHLER, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Post-Hole Diggers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to a new article of manufacture consisting of an improved post-hole digger, and consists in providing a digger having a light and yet strong and durable frame, to which the blades and handles are secured, and for pivotally securing the frames together, so as to be quickly separated, and withal to reduce the initial cost.

With these ends in view my invention consists in certain features of construction and combination of parts, as will be hereinafter described, and pointed out in the claim.

Figure 1 of the accompanying drawings is a view in perspective, partly sectional, showing a post-hole digger illustrating my invention. Fig. 2 is a similar view showing the back of the blade and the edge of the frame. Figs. 3 and 4 are similar views showing the edge or side of the blade and the side or body portion of the frame.

Similar letters of reference indicate corresponding parts in all of the figures of the drawings.

The frames A and B, to which the blades C and handles D are secured, are preferably made of cast malleable iron, and are formed substantially as shown in the figures of the drawings, having at their lower end portion a flanged-out portion *a*, as shown by the dotted lines in Fig. 2, said flange having a supporting-rib *a'* projected down from the body of the frame to the bottom of the flange. The blades C are riveted to the flange *a*, as shown in Figs. 1 and 2. To secure the blades against cutting off the rivets by the violence of the blow necessary to successfully operate the digger, a shoulder *b* is projected outwardly from the body of the frame, against which the upper end of the blade rests, as shown in all of the figures of the drawings. The upper or shank portion of the frame is provided with side flanges *c*, forming a socket in which the handle is secured by the bolts *e*.

To secure the frames A and B together in a pivotal relation, wide flat arms, as *d* and *d'*, are projected edgewise and inwardly from the body portion of the frame, as shown in Figs. 3 and 4. On the said arm *d*, projected from the body of the frame A, there is provided a hollow stud *h*, integral with the arm, and on the arm *d'*, projected from the body of the frame B, is provided an aperture *k*, about which is placed an outwardly-projected flange *m*, the arm *d'* overlapping and resting against the arm *d*, the stud *h* in the aperture *k*, and the parts secured together by a removable pin *n*, thus forming a strong and durable joint, not liable to wreck or wear, that will securely hold the parts in working position, and at the same time so constructed that the frames may be instantly separated by simply removing the pin *n* from the stud *h* to allow the separate blades to be used as a spade, or the handle having the iron head *o* to be used as a rammer.

On the side of the shank portion of the frame B is provided an outwardly-projected lug *p*, the outer end of which will engage the handle or socket of the frame A and prevent the handles from closing on the fingers of the operator. For convenience and safety I, by means of a cord, attach the pin *n* to the stud *p*.

The convenience with which the two parts may be put together or separated for the various uses to which it may be put will be appreciated by persons familiar with the use of such tools. As when used for transplanting, the spades may be pressed into the ground and afterward secured together before raising the plant, and may be separated after transplanting before drawn from the ground.

Having thus fully described the nature and object of my invention, what I claim as new, and desire to secure by Letters Patent, is—

A post-hole digger consisting of overlapping and interlocking combined blade and handle frames having laterally-flanged plates *a*, a shoulder *b* above each of said plates and integral with said frames, an integral vertical supporting-rib *a'*, a stop *p*, secured to one of the handle-frames, handles secured in sockets formed in said frames, a hollow stud se-

cured to one of the handle-frames and provided with a transverse hole and passing through an opening in the other frame, a pin passed through the transverse hole of the stud to prevent the lateral movement of said frames and connected to said stop p by a cord, and blades bolted to the plates a, with their upper ends abutting against said shoulders b and braced by the ribs a', substantially as set forth.

In testimony whereof I have hereunto set my hand this 17th day of June, A. D. 1890.

FREDERICK E. KOHLER.

Witnesses:
W. K. MILLER,
CHAS. R. MILLER.