





# UNITED STATES PATENT OFFICE.

CHRISTIAN BROSEY, OF MEDWAY, OHIO, ADMINISTRATOR OF DAVID  
FEIGLY, DECEASED.

## NURSERY TREE-DIGGER.

No. 815,901.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed October 4, 1905. Serial No. 281,337.

*To all whom it may concern:*

Be it known that DAVID FEIGLY, deceased, late a citizen of the United States and a resident at Medway, in the county of Clark and State of Ohio, did invent certain new and useful Improvements in Nursery Tree-Diggers; and I, CHRISTIAN BROSEY, a citizen of the United States, also of Medway, in said county and State, administrator of the said DAVID FEIGLY, deceased, do hereby 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 letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation of the tree-digger, showing the improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a bottom detail view of the lifting-plate and its bearing *u*. Fig. 4 is a detail sectional view of the lifting-plate and cutter-blade secured together, and Fig. 5 is a detail perspective view of the lifting-plate.

The invention relates particularly to certain improvements in tree-diggers, and particularly to a tree-digger for which Letters Patent No. 370,690 were granted to the late David Feigly on the 27th day of September, 1887; and the invention consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a* designates the beam of the digger, extending horizontally and having attached to its front end a clevis *b* of usual construction. The handles *c* *c'* are attached to the beam by their front ends and are braced in rear by the iron brace-bar *d* and cross-brace *e*. The handle *c*, which is on the same side as the blade, is alined with the beam, and the other handle *c'* is somewhat oblique in position with reference thereto, as shown.

Near the front end of the beam it is provided with a guide bearing-plate *f*, having vertical guide-flanges for the reception of the standard *g* of a supporting-wheel *h*. This standard is slotted vertically, as shown, and is adjustably secured to the beam by means of a bolt and nut.

The cutter *k* is of steel, about five-sixteenths

of an inch thick and about ten inches broad. The upper end of the cutter-plate is provided with an inward-extending horizontal flange *m*, which has two perforations for the bolts *n*, whereby it is secured to the beam. One or both of the perforations may be made in enlarged or slot form to facilitate adjustment. The vertical portion *p* of the cutter-blade extends downward and forward, having its parallel front and rear edges at an angle of about thirty degrees to the vertical. This portion *p* of the blade is a parallelogram of rhomboid shape. The horizontal portion *s* of the cutter-blade extends at right angles in the horizontal plane. This portion *s* joins the vertical portion along the entire breadth of the lower end of the latter and is provided with an oblique cutting edge *t*, extending rearward at an angle of about forty degrees to a lateral edge *v*, which is parallel to the vertical portion *p* of the blade. The lateral edge *v* terminates at the rear edge *w*, which is at right angles to said vertical portion of the blade.

The horizontal cutter portion *s* is a right-angle trapezoid and is extended in broad form to assist in making the instrument run true and at the same time to provide a seat for the lifter-plate *z*, which is secured thereon by means of an inclined plane bearing *u*, which is attached to the lifter-plate. This lifter-plate is held by the bearing at an angle of about thirty degrees inclination from the plane of the portion *s*. It therefore forms an inclined plane shelving toward the front part of the horizontal portion of the cutter. The bearing *u* is detachable and is held to the horizontal portion of the cutter by means of a downward-projecting stud 3, which engages a perforation in said portion, and by means of a bolt 4, which passes through another perforation in said portion and through a perforation 5 in said bearing, being secured in place by means of a nut 6. The lifter-plate is designed to raise and loosen the young trees as the horizontal cutter portion passes under them, making it easier to pull them up in gathering them. A tie-bar 6<sup>a</sup> serves to connect the vertical portion of the blade to the beam in a bracing manner.

In operation the blade makes one of the side cuts and about one-half of the horizontal cut necessary to remove the nursery-trees, at



the same time raising the ground which is about the roots by means of the lifting-plate. When the instrument is reversed and driven in the opposite direction, the blade makes  
5 the other lateral cut and the remainder of the horizontal cut, again raising the roots and the earth about them on this side. The blade being broad is designed to run true without requiring a rear guide-wheel. The instru-  
10 ment is designed to do efficient work in an economical manner.

What is claimed, and desired to be secured by Letters Patent, is—

1. In a tree-digger, the cutter-blade having  
15 a rhomboid vertical portion inclined forward and downward provided with an inward perforated securing-flange at its upper end, and with an outward horizontal portion of trapezoid form extending the entire breadth of the  
20 vertical portion, substantially as specified.

2. In a tree-digger, the combination with a beam, and a front supporting and guide wheel, of the straight and oblique handles, a cutter-blade having a right-angle outward-  
25 extending horizontal cutter portion, and de-

tachably connected thereto an inclined lifter-plate, substantially as specified.

3. In a tree-digger, the combination with the beam and handles, of a cutter-blade having a broad vertical cutter portion, and a  
30 broad horizontal cutter portion, a lifter-plate, an inclined bearing secured to said plate, and means for attaching said bearing to said horizontal cutter portion, substantially as specified.

4. In a tree-digger, the combination with a cutter having rhomboid vertical cutting portion and at its lower end a horizontal cut-  
35 ting portion, of a detachable inclined lifter-plate on said horizontal cutting portion, sub-  
40 stantially as specified.

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

CHRISTIAN BROSEY,  
*Administrator of the estate of David Feigly,*  
*deceased.*

Witnesses:

I. K. HOSTETTER,  
HARRY McFEELY.