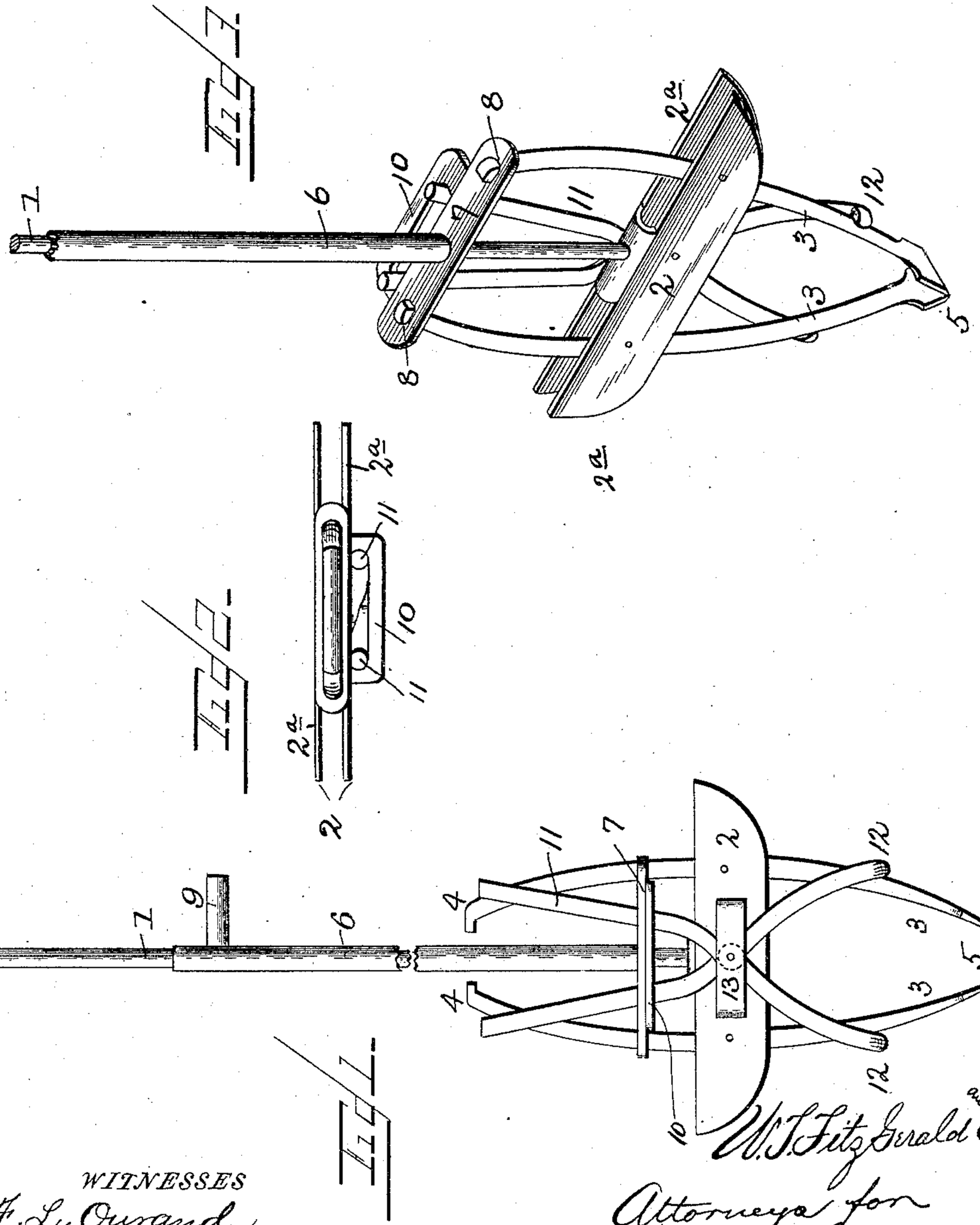
(No Model.)

W. W. WHEELOCK.

WEED AND ROOT PULLER.

No. 473,890. Patented Apr. 26, 1892.



WITNESSES
F. L. Ourand
O. H. Lochrey.

U. S. Fitz Gerald and Co.,
Attorneys for
W. W. Wheelock,
Inventor.

UNITED STATES PATENT OFFICE.

WILLIS W. WHEELOCK, OF DECORAH, IOWA, ASSIGNOR TO E. M. WHEELOCK AND H. B. HUSTVEDT, OF SAME PLACE.

WEED AND ROOT PULLER.

SPECIFICATION forming part of Letters Patent No. 473,890, dated April 26, 1892.

Application filed September 12, 1891. Serial No. 405,508. (No model.)

To all whom it may concern:

Be it known that I, WILLIS W. WHEELOCK, a citizen of the United States, residing at Decorah, in the county of Winneshiek and State of Iowa, have invented certain new and useful Improvements in Weed and Root Pullers; and I 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.

My invention relates to improvements in weed and root pulling implements; and it consists of certain novel features of construction and arrangement of parts that will be hereinafter fully specified, and pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my root-pulling machine. Fig. 2 is a top plan view of the same, while Fig. 3 is a perspective detail of the device, showing the jaws closed.

Briefly stated, my invention consists of a handle provided with two clamping-jaws adapted to take into the soil underneath the root and either clip the same or draw it out of the ground, as will be hereinafter fully set forth.

Referring to the several parts by their respective figures of designation, 1 is the body proper, consisting of a cylindrical or other form of rod, to the lower end of which, at right angles thereto, is secured the guide 2, said guide being rigidly secured at the lower end of said body. The guide 2 consists of two sections 2^a, arranged parallel with each other, between which are pivotally secured at either side of the body the incisor-jaws 3, having at their upper ends the inwardly-reaching terminals 4 and at their lower ends the parallel cutting-blades 5. In order to control the operation of said jaws, I mount upon the body 1 the sliding sleeve 6. Said sleeve carries at its lower end the arms 7, the outer ends of each being provided with apertures 8, adapted to encircle the upper ends of the jaws 3, as shown. The upper end of the sleeve 6 is provided with a convenient form of handle 9, by which it may be reciprocated upon the body. The upper ends of the jaws 3 are curved slightly inward toward the body, and it will be seen that when the sleeve 6 is drawn upward upon the body 1 its connection through the intermediation of the arms 7 with said jaws will cause their lower ends to be brought firmly together, while an opposite movement of said sleeve will draw the cutting-blades of the jaws apart.

In order to more effectively control the locking feature of the jaws, I provide the bracket 10, which consists of a U-shaped loop of sheet material, each end of which is secured to one of the arms 7 immediately on the inner side of the aperture 8 therein. Within the loop 10 are placed the upper ends of the auxiliary clamp-arms 11, the pivoted point of said arms being in the center of the guides 2. (Shown.) The lower ends of the auxiliary clamp-arms reach downward to and engage with the outer side of the clamping-jaws 3, where they terminate in a lateral reach or semicircle 12, which comes into engagement with the outer side of the clamping-jaws 3, near the cutting-blades thereof. The auxiliary clamp-arms are affixed to one side of one of the guides 2 by means of the anchor-plate 13, which lies parallel with said guides and has its ends affixed thereto.

Having thus described the construction of my improved weed and root pulling machine, it is operated as follows: In order to open the jaws, the sliding sleeve 6 is forced downward upon the body, carrying with it the laterally-reaching arms 7, which, being in engagement with the open ends of the clamping-jaws, follow the curved body thereof downward, and thus throw the cutting-blades away from each other or open the machine ready for being inserted into the earth. After the clamping-jaws are thus forced open the cutting-blades thereof are adjusted upon either side of the weed or root to be extracted, when the foot of the operator may be placed upon one of the extended ends of the guides 2, causing the cutting-blades to take into the soil on either side of the root, when the sleeve, by means of the handle 9, is drawn upward, causing the arms thereon to follow the curved ends of the clamping-jaws 3, and thus force the same outward and simultaneously drawing the cutting-blades toward and against each other. A corresponding effect is pro-

duced upon the auxiliary clamp-arms 11—that is to say, when the sleeve is drawn upward the loop 10, encircling the upper portion of said arms, draws the same toward each other and at the same time causes the lower ends of said auxiliary arms to bear firmly against the lower ends of the clamping-jaws 3, thus bringing pressure to bear directly above the cutting-blades or at that point most needed to effectively hold the jaws together in their operative position.

The construction just described results practically in providing a locking device for the jaws when the same are brought into engagement with the root, rendering it impossible for the root to slip between the cutting-blades until the sleeve is again forced downward.

Believing that the advantages, operation, and construction of my improved root and weed pulling implement will be made clear from the foregoing description, considered in connection with the accompanying drawings, further reference thereto is dispensed with.

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

1. In a root and weed pulling implement, substantially as described, the combination, with the body, the parallel guides secured thereto, the blade-carrying jaws 3, pivoted between the guides, and the auxiliary clamp-arms pivoted to the guides and having their lower ends bent to engage the blade-carrying jaws, of the reciprocating sleeve mounted on the body, the transverse arms 7, fixed to the lower end of said sleeve and engaging the upper portion of the blade-carrying jaws, and the loop 10, connected to the transverse arms 7 and engaging the upper portion of the auxiliary clamp-arms, substantially as specified.

2. In a root and weed pulling implement, the combination of the body, the parallel guides secured thereto, the reciprocating sleeve mounted upon said body, the blade-carrying jaws 3, pivoted between the guides, and the transverse arms 7, affixed at the lower end of the sleeve and adapted to control the blade-carrying jaws, substantially as set forth.

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

WILLIS W. WHEELOCK.

Witnesses:
R. F. GIBSON,
JOHN B. KAYE.