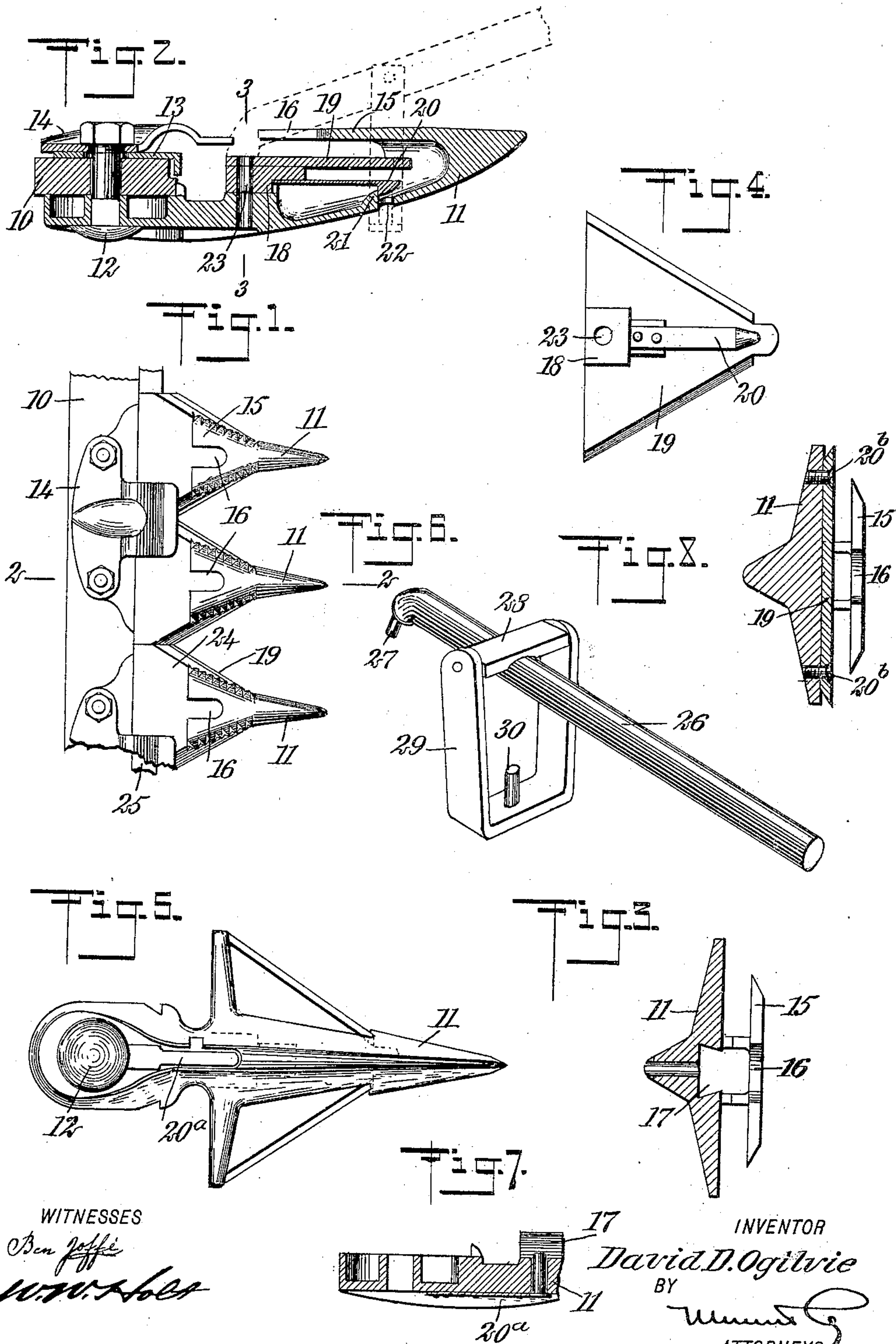


D. D. OGILVIE.  
GUARD.  
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922,180.

Patented May 18, 1909.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

DAVID D. OGILVIE, OF LEE, NEVADA.

## GUARD.

No. 922,180.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed July 24, 1908. Serial No. 445,140.

*To all whom it may concern:*

Be it known that I, DAVID D. OGILVIE, a citizen of the United States, and a resident of Lee, in the county of Elko and State of Nevada, have invented a new and Improved Guard, of which the following is a full, clear, and exact description.

This invention is an improvement in guards such as are used on mowers, reapers, headers, and the like, and has in view a device of this character in which the ledger plates can be readily detached from the guard, to be ground; and to provide for the continuous and gradual cutting of the grass, etc. instead of simultaneously cutting it in bunches, as is the usual practice, this latter manner of cutting causing considerable vibration and jerking and often breaking the knives. I attain these objects preferably by slidably mounting the ledger-plates in ways formed in the guard-fingers, and provide spring-actuated catches for automatically locking the plates in place when moved to operative position. I also construct the ledger-plates of a wedge-shape or tapering form, and likewise shape the knives of the cutter-bar.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan of a guard constructed in accordance with my invention; Fig. 2 is a section through the guard substantially on the line 2—2 of Fig. 1, parts being omitted; Fig. 3 is a cross-section on the line 3—3 of Fig. 2; Fig. 4 is an inverted plan of one of the ledger plates; Fig. 5 is an inverted plan of one of the guard-fingers, showing a slightly modified form of construction; Fig. 6 is a perspective view of a special tool for removing the guard-fingers from the guard; Fig. 7 is a fragmentary sectional view through the guard-finger shown in Fig. 5, and Fig. 8 is a section, similar to Fig. 3, of a modified form of the invention.

The guard embodies in its construction the usual finger-bar 10, to which a series of fingers 11 are detachably connected by bolts 12, the latter also passing through a guide-plate 13 and guide-clips 14. The fingers 11 present the customary general form, being hollow for the greater portion of their length and provided with rearwardly-directed tapering or wedge-shaped guards 15 having barbed or notched opposite edges and cut away or

slotted, as indicated at 16, for a purpose hereinafter made apparent. The intermediate portion of each finger of the guard slightly in advance of the finger-bar is constructed with a dovetailed way 17, as shown in Fig. 3, and running in the direction of its length. In these ways slidably fit dovetailed lugs or projections 18, rigid with the under face of the ledger-plates 19, these plates also having a tapering or wedge-shaped form, and in the particular construction of my invention shown in Figs. 1 and 4, each plate has also attached on its under face in advance of the lug 18, a spring latch 20, the head of which is adapted to automatically engage over a projection 21 when the ledger-plate is moved to operative position. The projections 21 are formed on the inside of the fingers adjacent to apertures 22, which the heads of the spring latches overlie when in locking engagement. Apertures 23 are also formed through the ledger-plates, and extend through the lugs 18. Slidable on the ledger-plates are correspondingly-shaped knives 24 rigidly attached to a knife-bar 25 which is movable in the slot between the finger-bar and ledger-plates, and retained therein by the guide-plate 13 and clips 14.

For moving the ledger-plates from the guard I provide a special tool, as shown in Fig. 6, the same consisting of a bar 26 having a portion or pin 27 at its inner end turned downwardly and of reduced diameter. To the bar is rigidly attached a cross-piece 28 journaled in the upper end of a stirrup 29, the latter having a pin 30 projecting upwardly from its base. By passing the pin 30 of the stirrup within the aperture 22 of one of the fingers, and the pin 27 in the aperture 23 of the corresponding ledger-plate, and then pulling up slightly on the handle end of the lever, the spring catch 20 will be disengaged, when the ledger-plate may be slid rearwardly from the finger by operating the outer end of the bar 26. The slots 16 of the guard receive the bar of the tool when the latter is applied.

In Figs. 5 and 7 I have shown a modified way of locking the ledger-plates in place, wherein, instead of connecting the spring latches directly with these plates, I secure the latches 20<sup>a</sup> to the under side of the fingers at or near the bolts 12, and construct their heads in the form of upwardly-projecting pins of sufficient length to pass through the fingers and into the apertures 23 in the ledger-plates.



Fig. 8 discloses a form of my invention in which the spring latch and lug of the guard plate are dispensed with, as also the way which receives the lug, and the ledger-plate is fastened by screws 20<sup>b</sup>.

In the operation of the guard, the grass or other growth being cut, passes in between the fingers where it is engaged by the barbs or notches in the edges of the guards, which prevent it from being bent forwardly or pushed outwardly by the reciprocation of the knife-bar. In view of the tapering or wedge form of the ledger plates and knives, the cutting proceeds gradually and continuously, and the growth is not cut in bunches with the disadvantages incident thereto, as is the usual practice.

While I have shown only three types of construction of my improved guard, I nevertheless recognize that other forms of the invention may be produced within the scope of the claims annexed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. The combination of a guard-finger, a ledger plate slidably connected with the finger longitudinally thereof, and a spring-latch automatically locking the ledger-plate in operative position.

2. The combination of a guard-finger having a dove-tailed way formed therein longitudinally thereof, and provided with a guard, and a ledger-plate arranged under the guard, having a dove-tailed lug on its under face slidable in the way of the finger.

3. The combination of a guard-finger having an under-cut way, and a ledger-plate having a lug on its under face slidably fitting within said way.

4. The combination of a guard-finger having an under-cut way arranged longitudinally thereof, a ledger-plate having a projection on its under face slidable in said way, and means for locking the finger and plate together when the plate is moved to operative position.

5. The combination of a finger-bar having guard-fingers secured thereto, each provided with a guard and a way, a ledger-plate slidable on each finger under its guard and having a lug engaging in the way of the finger, and a spring latch automatically locking the ledger-plate to the finger when slid to operative position.

6. The combination of a finger-bar having guard-fingers secured thereto, each provided with a guard, a tapering ledger-plate slidably mounted on each finger, spring latches for automatically locking each of the ledger-plates to their respective fingers when moved to operative position, and a knife-bar having tapering knives movable between the ledger-plates and guards.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

DAVID D. OGILVIE.

Witnesses:

GARRETT J. O'NEILL,  
ALEXANDER D. TABER.