Jan. 6, 1942. H. T. CLARK 2,269,007

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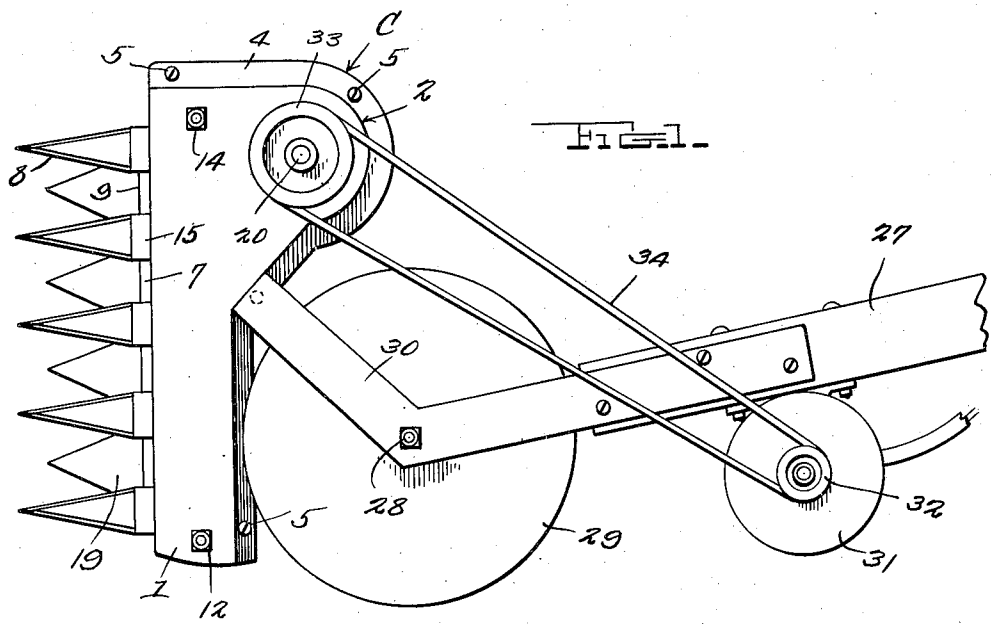


FIG. 1.

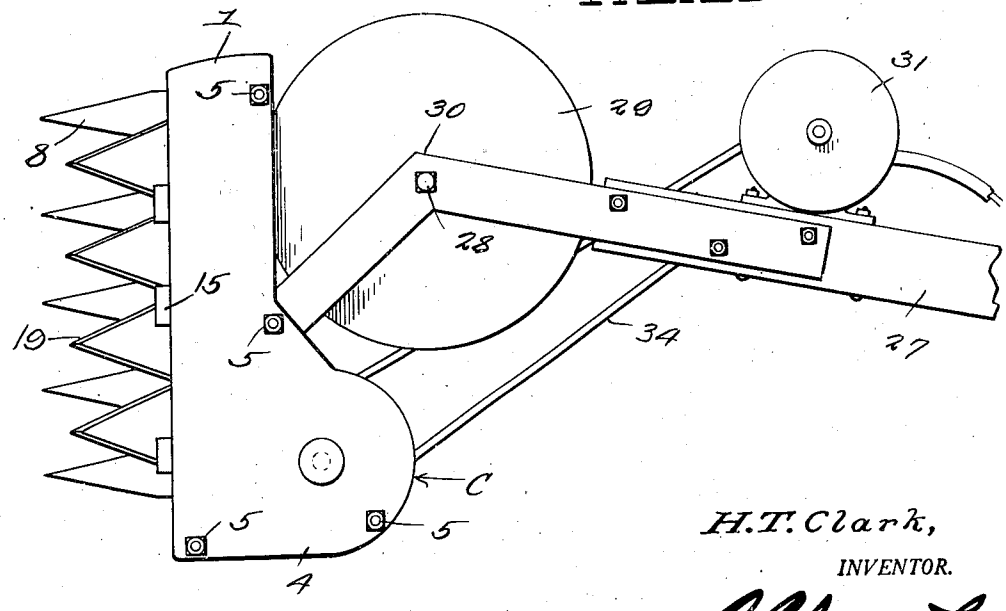


FIG. 2.

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FIG. 3.

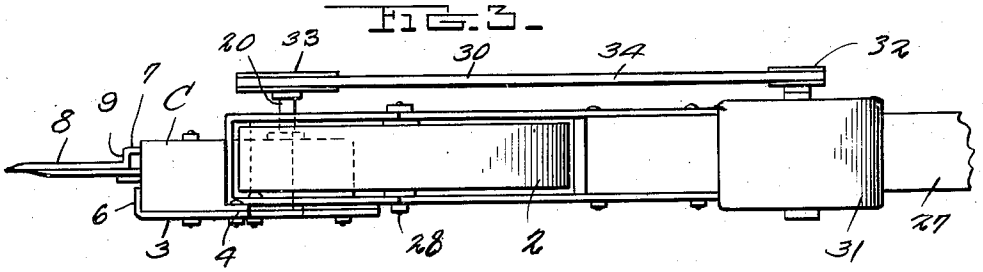


FIG. 4.

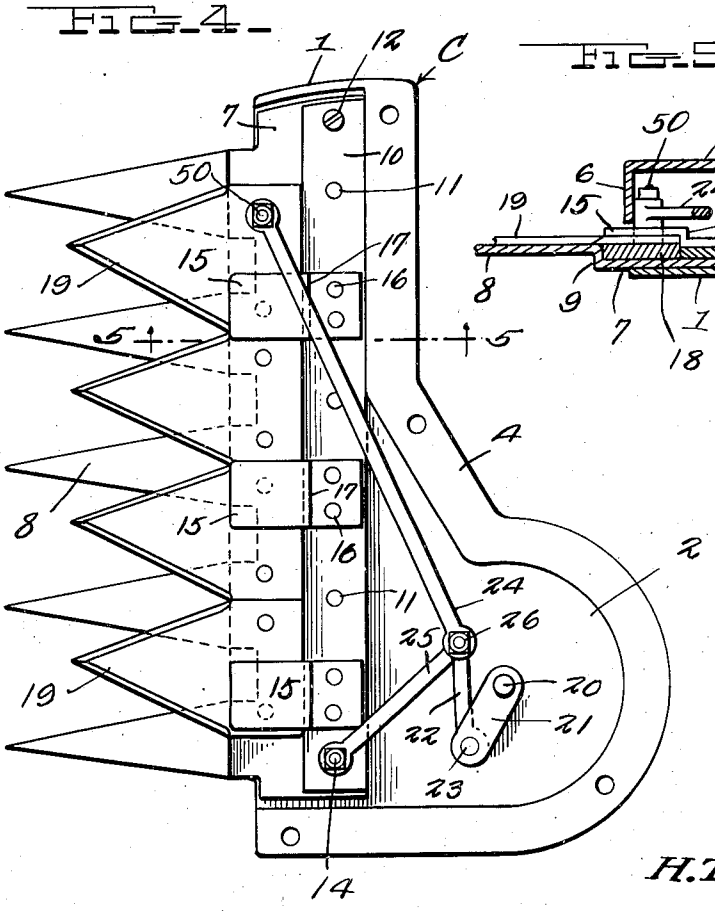


FIG. 5.

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INVENTOR.

BY C. A. Snow & Co.

Patented Jan. 6, 1942 2,269,007

UNITED STATES PATENT OFFICE

2,269,007

EDGER

Henry T. Clark, St. Petersburg, Fla.

Application August 18, 1941, Serial No. 407,368

1 Claim. (Cl. 56—26.5)

The device forming the subject matter of this application is adapted to be employed for cutting the vertical edges of lawns, and the vertical edges of hedges. It can be used, also, for cutting upper surfaces of hedges.

The invention aims to provide a device which will be properly balanced, for cutting either vertically or horizontally, and to provide novel means for guiding the device over the top of a hedge, whilst a horizontal cutting is going forward.

The invention aims to improve the construction of the cutting head, to provide novel means for actuating the cutting instrumentality and, generally, to improve and to enhance the utility of devices of that type to which the present invention appertains.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:

Fig. 1 shows in elevation, a device constructed in accordance with the invention;

Fig. 2 is an elevation wherein the opposite side of the machine from that depicted in Fig. 1 is disclosed;

Fig. 3 is a top plan;

Fig. 4 is an elevation of the casing, the closure plate having been removed;

Fig. 5 is a cross section on the line 5—5 of Fig. 4.

In order to give a definite meaning to such words as "front," "rear," "near," and "far," it will be presumed that the reader is viewing the device as depicted in Fig. 1.

In carrying out the invention, there is provided a casing C, including a body 1 provided at its upper end with a rearwardly extended enlargement 2. The far side of the body 1 is closed by a plate 3, the body 1 having a rectangular flange 4 along its top and along its back, the plate 3 being attached to the flange by securing elements 5. The closure plate 3 is supplied with a rectangular wing 6, partially closing the body 1 at the front.

A plate 7 is disposed against the inner surface of the near wall of the body 1 and extends backwardly to the rear wall of the body. The plate 7 is provided with forwardly presented, fixed teeth 8 having shoulders 9.

A rib 10 is disposed on top of the plate 7, and is attached thereto by securing elements 11. Securing elements 12 and 14, are located near to the ends of the rib 10, to connect the rib 10 and the plate 7 with the near wall of the body 1.

Retainers 15 are secured at 16 to the rib 10 and are offset to form shoulders 17. A cutter bar 18 is mounted for reciprocation, between the rib 10 and the shoulder 9, in contact with the plate 7. The cutter bar 18 is supplied with forwardly presented cutting teeth 19, cooperating with the teeth 8, and mounted for reciprocation beneath the retainers 15.

A shaft 20 is journaled for rotation in the offset 2 of the body 1, and in the corresponding part of the closure plate 3. A crank arm 21 is secured to the shaft 20, within the casing or head C. A pitman 22 is pivoted at 23 to the crank arm 1. The rear ends of links 24 and 25 are pivoted at 26 to the pitman 22, the forward end of the link 25 being pivoted on the securing element 14, and the forward end of the link 24 being pivoted at 50 to the cutter bar 18.

An obtusely angular handle 27 is provided, and has obtusely disposed forks 30 at its forward end, the forks being secured to the casing C. In the angle of the structure 27—30 is disposed an axle 28, on which a ground wheel 29 is journaled, the ground wheel 29 being located between the forks 30.

A motor 31, of any desired sort, is secured to the handle 27. The shaft of the motor 31 is provided with a pulley 32, and there is a pulley 33 on the shaft 20, the pulleys being connected by a belt 34.

In practical operation, the wheel 29 engages the ground, and the machine is moved forwardly in the vertical position of Fig. 1, the vertical edges of a lawn or the like being cut by the cooperation between the teeth 19 and 8. Motion is imparted to the teeth 19 by a train of parts including the motor 31, the pulley 32, the belt 34, the pulley 33, the shaft 20, the crank arm 21, the pitman 22 and the links 24 and 25.

It is to be noted that because the casing C is enlarged, as shown at 2, to receive parts of the driving mechanism, as shown in Fig. 4, and as delineated in working position in Fig. 1, there is a tendency for the machine to tip sidewise. That tendency is offset by reason of the fact that the

motor 1 is on the lower side of the handle 27, whereas the offset or heavier part of the casing C and attendant mechanism are on the upper side of the bar. The result is that the machine will travel along in a substantially vertical position, without the necessity of having the operator grip the handle 27 tightly. The motor 31 acts as a depending counterweight.

The machine need not be used in the vertical position shown in Fig. 1. It may be employed in a horizontal position, to cut off the top of a hedge. Under such circumstances, the counterbalancing effected by the motor 31 is even more marked than when the device is used in the vertical position of Fig. 1. Moreover, when the machine works horizontally, the ground wheel 29 acts as a guide, sliding over the top of the hedge and aiding in keeping the working part of the machine in a horizontal position. The enlargement 2 of the casing also may serve as a support or guide, riding along over the top of a hedge, along with the wheel 29, each wholly or in part.

Having thus described the invention, what is claimed is:

In a trimmer adapted for vertical lawn trimming and vertical and horizontal hedge trimming, a hollow transverse head provided at one end with a rearwardly extended enlargement, a handle extending rearwardly from the intermediate portion of the head, a cutter mounted for reciprocation in the head, transversely of the handle, a shaft journaled in the enlargement, means for operatively connecting the shaft with the cutter and extended into the enlargement, a motor mounted on the handle, a driving connection between the motor and the shaft, and a ground wheel mounted to rotate on the handle and extended on opposite sides of the handle: the motor, and the enlargement and parts within it, being disposed on opposite sides of the handle, to promote balance, the ground wheel being large enough to form a support and guide when slid flat over the top of the hedge, with the cutter working horizontally, and the enlargement being located close enough to the wheel to form a cooperating support and guide.

HENRY T. CLARK.