April 3, 1956 H. L. EDGETT 2,740,198

PORTABLE MOTOR DRIVEN HEDGE TRIMMER

Filed Aug. 21, 1953

2 Sheets-Sheet 1

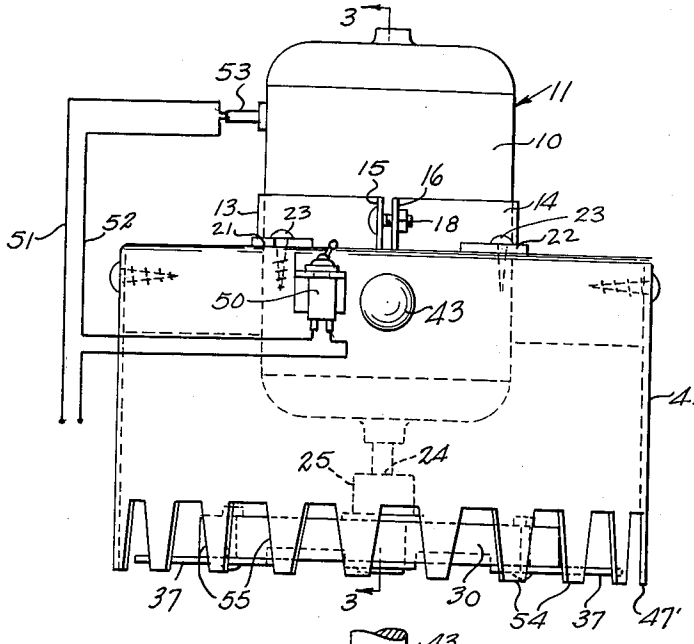


Fig. 1.

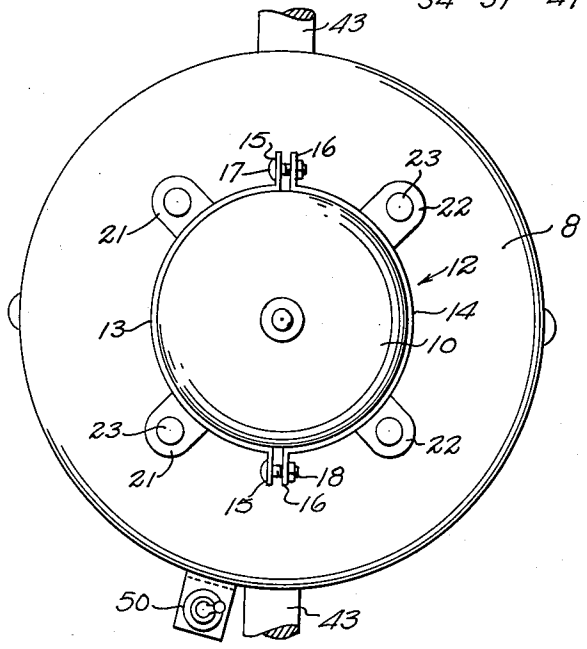


Fig. 2.

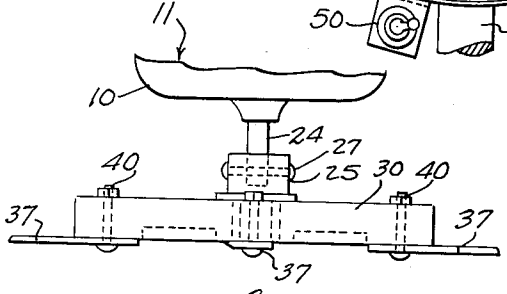


Fig. 3.

INVENTOR

HENRY L. EDGETT,

BY

McMorrow, Berman + Davidson

ATTORNEYS.

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Fig. 3

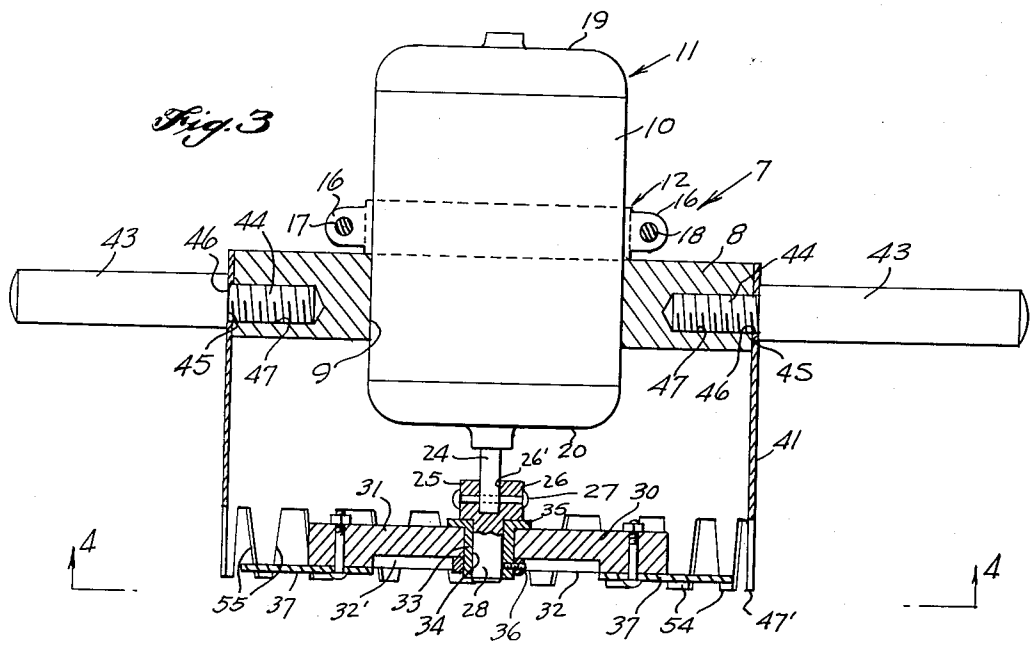
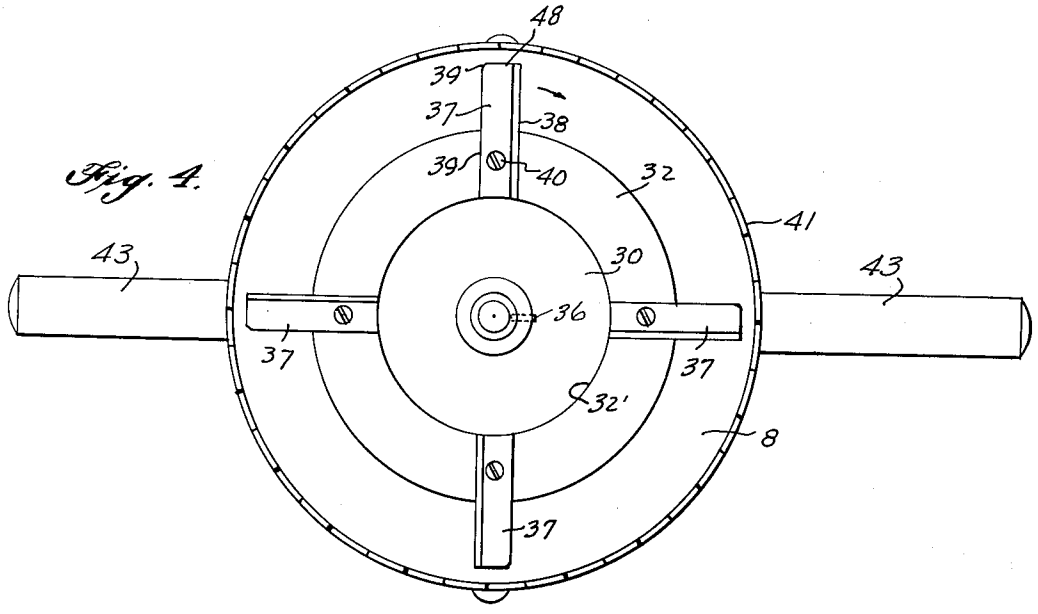


Fig. 4.



INVENTOR

HENRY L. EDGETT,

BY

McMorrow, Berman & Davidson

ATTORNEYS

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PORTABLE MOTOR DRIVEN HEDGE TRIMMER

Henry L. Edgett, Easton, Pa.

Application August 21, 1953, Serial No. 375,596

2 Claims. (Cl. 30—276)

This invention relates to improvements in motor driven apparatus for trimming hedges, and more particularly to a portable motor driven hedge trimmer designed to be carried by a person and applied to the top and sides of hedges, and the primary object of the invention is to provide an efficient, compact and fast-working implement of this kind which enables more quickly and more accurately trimming hedges with ease and facility.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific embodiment of the invention is set forth in detail.

In the drawings:

Figure 1 is a side elevation, with portions in dotted lines, and including a wiring diagram;

Figure 2 is a fragmentary top plan view;

Figure 3 is a transverse vertical section taken on the line 3—3 of Figure 1;

Figure 4 is a bottom plan view; and

Figure 5 is a fragmentary side elevation, the shield being removed.

Referring in detail to the drawings, wherein like numerals designate like parts throughout the several views, the illustrated hedge trimmer, generally designated 7, comprises a relatively thick circular block 8, preferably of hard wood or other suitable material, provided with a central circular opening 9, of substantially the diameter of the cylindrical casing 10 of an electric motor 11 of suitable power rating.

Surrounding the opening 9 is a split clamp ring 12 composed of half-circular sections 13 and 14 terminating at their opposite ends in radial ears 15, 15 and 16, 16, respectively. Clamping bolts 17 and 18 traverse the facing ears and provide for clamping the ring 12 securely about the motor casing 10, at a point about midway between the upper and lower ends 19 and 20, respectively, of the motor casing. At evenly spaced intervals the ring sections have lugs 21, 21 and 22, 22 on their lower edges which extend radially outwardly therefrom and rest upon the top of the block 8, and are secured thereto by screws 23 or other suitable fastening means, whereby the motor 11 is securely held in position in the block opening 9.

The motor 11 has a motor shaft 24 depending below the lower end 20 of the motor casing 10, and a special adapter 25 is securely fixed to the shaft 24. The adapter 25 has a flat cylindrical head 26 provided with a central socket 26' snugly receiving the motor shaft 24. A locking pin 27 traverses the head 26 and the motor shaft 24 and has its ends peened over or otherwise suitably secured against becoming loose. The adapter 25 further includes a reduced axial shank 28 depending from the head 26.

The adapter 25 mounts a cutter rotor on the shank 28. The rotor comprises a stiff but lightweight disc 30, preferably of aluminum or like suitable metal, having a flat top 31 and a flat, circular under side 32, centrally recessed, at 32'. A tubular bushing 33 has a central bore 34 fitting

the adapter shank 28, and a lateral flange 35 on its upper end which engages the under side of the head 26 and the top 31 of the disc 30. A set screw 36 traverses the side wall of the bushing 33 and engages the shank 28 and removably locks the disc 30 and the bushing 33 on the shank 28.

At several circumferentially spaced points on the disc 30 are secured radial cutter blades 37. The blades 37 are elongated and of generally rectangular shape, having longitudinal cutting edges 38 along one side thereof, and rounded corners 39 at the outer ends of their trailing sides.

Inward portions of the blades 37 are engaged with the under side 32 of the disc 30 outwardly of the recess 32', and are removably fixed in place by studs 40 traversing the blades 37 and threaded into the disc 30.

An annular shield 41, preferably of sheet metal, closely surrounds the block 8 at upper end 42 of the shield. Diametrically opposed carrying and operating handles 43, 43 have reduced threaded shanks 44, 44 on their inward ends which define abutment shoulders 45, 45 on the handles. The threaded shanks pass through holes 46, 46 provided in the shield 41 and thread into threaded sockets 47, 47 provided in the peripheral edge of the block, with the abutment shoulders 45, 45 bearing against the outward side of the shield, whereby the shield 41 is mounted on and secured to the block 8.

The lower part of the shield is closely concentrically spaced from the outer ends 48 of the cutter blades 37 and has a lower edge 47' which depends a short distance below the under sides of the blades, as shown in Figure 3.

A toggle switch 50 is conveniently mounted on the upper part of the outside of the shield 41 and is electrically connected in one of the two wires 51 and 52 of a conduit 53 leading from the motor 11 to a suitable current source (not shown), for starting and stopping the motor.

The trimmer shield 41 is of the comb type and has equally circumferentially spaced truncated triangular teeth 54 on its lower end which are defined by truncated triangular slots 55 cut through the lower edge 47' of the shield.

The trimmer can be held by the handles 43, 43 and applied to either the top or a side of a hedge for trimming the top or side of the hedge. The shield 41 protects the cutter blades 37 except at the points between the teeth 54, from coming into injurious contact with obstructions, but permits the blades to act efficiently upon the work to be trimmed, as the trimmer is manipulated and carried by means of the handles 43, 43.

What is claimed is:

1. In a portable hedge trimmer, a circular horizontal block having a peripheral edge and a central opening, a motor casing engaged through said opening and having a cutter shaft depending therefrom, means acting between the block and the motor casing and securing the motor casing in place, a cylindrical tubular shield surrounding said block, said shield having an upper portion engaging said peripheral edge, means securing the shield in place, said shield having a lower portion depending below said cutter shaft, said lower portion having a lower edge provided with circumferentially spaced notches defining teeth, a cutter rotor secured to the cutter shaft, said rotor being located on a level with said teeth.

2. In a portable hedge trimmer, a circular horizontal block having a peripheral edge and a central opening, a motor casing engaged through said opening and having a cutter shaft depending therefrom, means acting between the block and the motor casing and securing the motor casing in place, a cylindrical tubular shield surrounding said block, said shield having an upper portion engaging said peripheral edge, means securing the shield in place, said shield having a lower portion depending below said cutter shaft, said lower portion having a lower edge pro-

vided with circumferentially spaced notches defining teeth, a cutter rotor secured to the cutter shaft, said rotor being located on a level with said teeth, said means comprising at least one handle having a reduced threaded shank defining a shoulder with the remainder of the handle, the said upper portion having an opening with the threaded shank extending through the opening and threaded radially into the peripheral edge of the block with said shoulder bearing externally against the upper portion of the shield.

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