June 1, 1937.

W. R. BANKSON

2,082,610

HEDGE TRIMMER

Filed Aug. 15, 1935

Fig-1

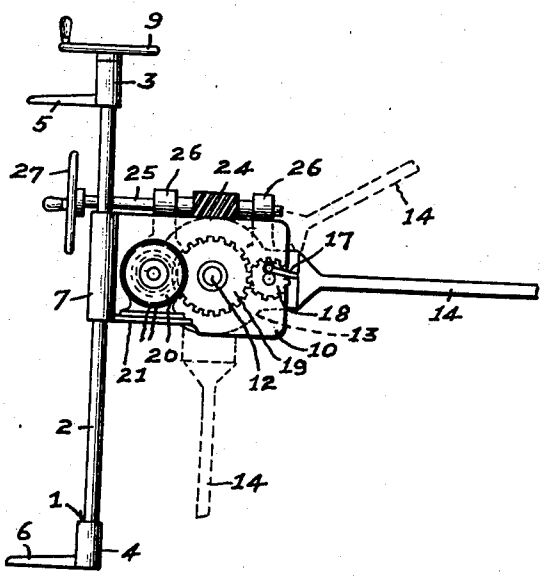


Fig-2

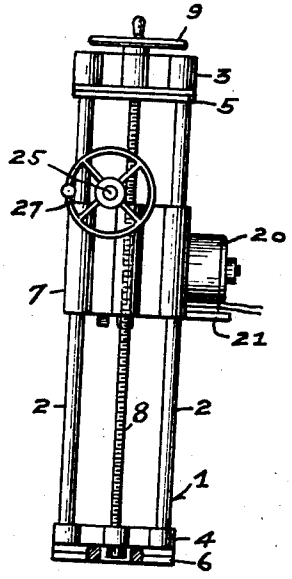


Fig-3

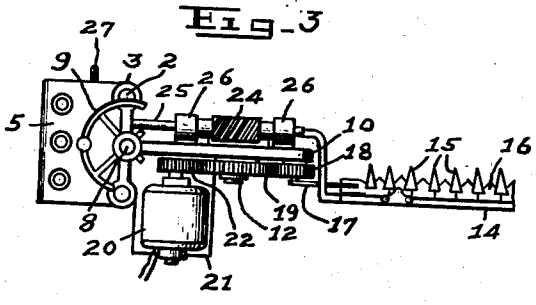
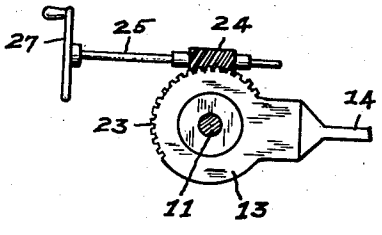


Fig-4



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Patented June 1, 1937 2,082,610

UNITED STATES PATENT OFFICE

2,082,610

HEDGE TRIMMER

William R. Bankson, Pittsburgh, Pa.

Application August 15, 1935, Serial No. 36,305

1 Claim. (Cl. 56—237)

My invention relates to a hedge trimmer somewhat of the type disclosed in my Patent numbered 1,839,009 and issued on the 29th day of December, 1931.

Important objects of the invention are to provide a hedge trimmer of the character described, which is adapted to be attached to a power propelled vehicle, which is power operated, which embodies a cutting element that may be readily adjusted to any desired cutting height and angle, and which will facilitate and expedite hedge trimming operations.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts herein specifically described and illustrated in the accompanying drawing, but it is to be understood that changes in the form, proportions and details of construction may be resorted to that come within the scope of the claims hereunto appended.

In the drawing wherein like numerals of reference designate corresponding parts throughout the several views:

Figure 1 is a rear elevational view of a hedge trimmer, constructed in accordance with the invention.

Figures 2 and 3 are, respectively, side and top plan views thereof.

Figure 4 is a rear view of the adjusting disk and of associated parts.

Referring in detail to the drawing 1 denotes the entire frame structure, which comprises a pair of spaced guide rods 2, a head member 3, and a foot member 4. The guide rods extend vertically and parallel to each other, and have their upper ends fixed in the head member 3, while the lower ends thereof are fixed in the foot member 4.

The head and foot members 3 and 4 are each provided with an integrally formed, laterally projecting connecting bracket, respectively indicated at 5 and 6. The connecting brackets are apertured and adapted for attaching the device in position to a motor truck or tractor, or to any other suitable propelling vehicle.

A slide block 7 is mounted for vertical movement on the guide rods 2, which latter extend through the former. An adjusting screw 8 is suitably journaled for rotation in the head and foot members 3 and 4, and is disposed parallel to and centrally intermediate of the guide rods. The adjusting screw extends through the slide block and is threadedly engaged in the latter.

The upper end of the adjusting screw 8 carries a fixed, handled, operating wheel 9 to facilitate the rotation of the screw when vertically adjusting the slide block 7 on the guide rods 2.

The slide block 7 is provided with an integrally formed or otherwise fixed supporting plate 10, which is disposed vertically edgewise. The supporting plate carries a pair of fixed axles, respectively indicated at 11 and 12. The axles 11 and 12 are horizontally aligned, having a common axis, and project laterally on opposed sides of the supporting plate.

A connecting disk 13 is pivotally mounted, at its axial center, on the axle 11, and carries a cutter bar 14, which is fixed therewith in any suitable manner. The cutter bar is of the well-known construction and includes the slotted fingers 15, through which the cutter member 16, having triangularly-shaped knives, reciprocates in the usual manner during the cutting operation.

Reciprocating movement is imparted to the cutter member 16 by a pitman 17, which has one end pivotally connected to the inner end of the former. The other end of the pitman is pivotally and eccentrically connected to a pinion 18, which is pivotally connected against the rear side of the supporting plate 10. The pinion is driven by a driving gear 19, which is revolubly connected on the axle 12 rearwardly of the supporting plate.

An electric motor 20 is secured in position on a bracket 21, which latter projects rearwardly of and is fixed to the supporting plate 10. The motor 20 is provided with a motor gear 22, which meshes with and operates the driving gear 19.

It is evident that the operation of the motor 20 will drive the gear 19 and associated pinion 18, and thereby impart longitudinal reciprocation of the cutter member 16 in the cutter bar 14 to effect the cutting or trimming operations, in a manner well known in the art.

It will here be noted that, while illustrating and describing an electric motor for driving my improved hedge trimmer, it is evident that any other adaptable power mechanism may be employed, namely, an internal combustion engine, or a suitable driving connection with the power mechanism embodied in the propelling vehicle to which the device is attached.

Approximately one-half portion of the periphery of the connecting disk 13 is provided with gear teeth 23, which mesh with a worm 24 fixed on a shaft 25. The latter is suitably journaled for rotation in bearings 26, which latter are carried by and fixed to the supporting plate 10 at the top of the latter.

The shaft 25 projects through the frame struc-

ture 1, and carries a fixed, handled operating wheel 27. The operation of the latter will effect the adjustment of the cutter bar 14 and of the associated cutter member 16 from the horizontal position to predetermined angular positions either above or below the latter, as clearly illustrated in Figure 1.

As the driving gear 19 and the connecting disk 13 have a common axial center, the adjustment of the cutter bar 14, in the manner stated, will not affect the functioning of the pinion 18, regardless of the relative position of the latter with respect to the driving gear 19.

The location and relative positions of the operating wheels 9 and 27 are such as to conveniently permit their manipulation by the operator, to provide the required or desired height and angular adjustments of the cutting elements.

The present invention provides a most efficient device of its kind, which may be conveniently operated to neatly, quickly and accurately trim a hedge row along its top and along respective sides thereof.

What I claim is:

In combination, a hedge trimmer of the character described, comprising a pair of vertically extending spaced guide rods, head and foot members fixed to respective ends of said pair of guide rods, an attaching bracket fixed to each of said head and foot members, a block including a supporting plate slidably mounted on said pair of guide rods, an adjusting screw threadedly engaging said block disposed parallel to and intermediate of said pair of guide rods and journaled for rotation in said head and foot members, a wheel fixed to the upper end of said adjusting screw to operate the latter to vertically shift said block on said pair of guide rods, a connecting disk pivotally joined to said supporting plate, a cutter bar fixed to said connecting disk, a reciprocating cutter member mounted in said cutter bar, power operated means carried by said supporting plate and operable for imparting reciprocating movement to said cutter member in said cutter bar, and means carried by said supporting plate and engaging the periphery of said connecting disk for adjusting the longitudinal disposition of said cutter bar with respect to said supporting plate.

WILLIAM R. BANKSON.