June 12, 1923. 1,458,250

W. J. STAUDINGER

HEDGE CUTTER

Filed Sept. 29, 1922 2 Sheets-Sheet 1

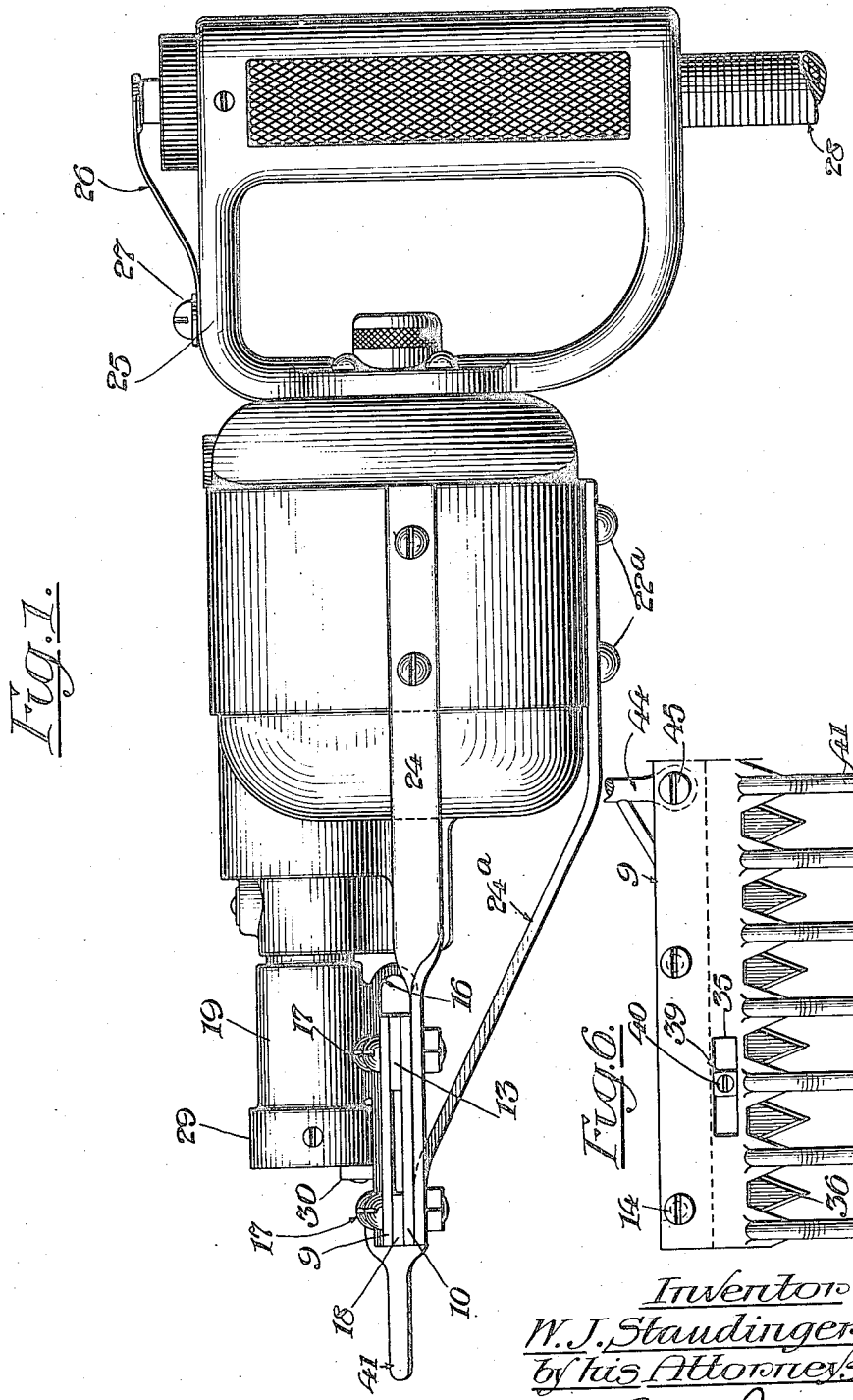

Fig. 1.

Fig. 6.

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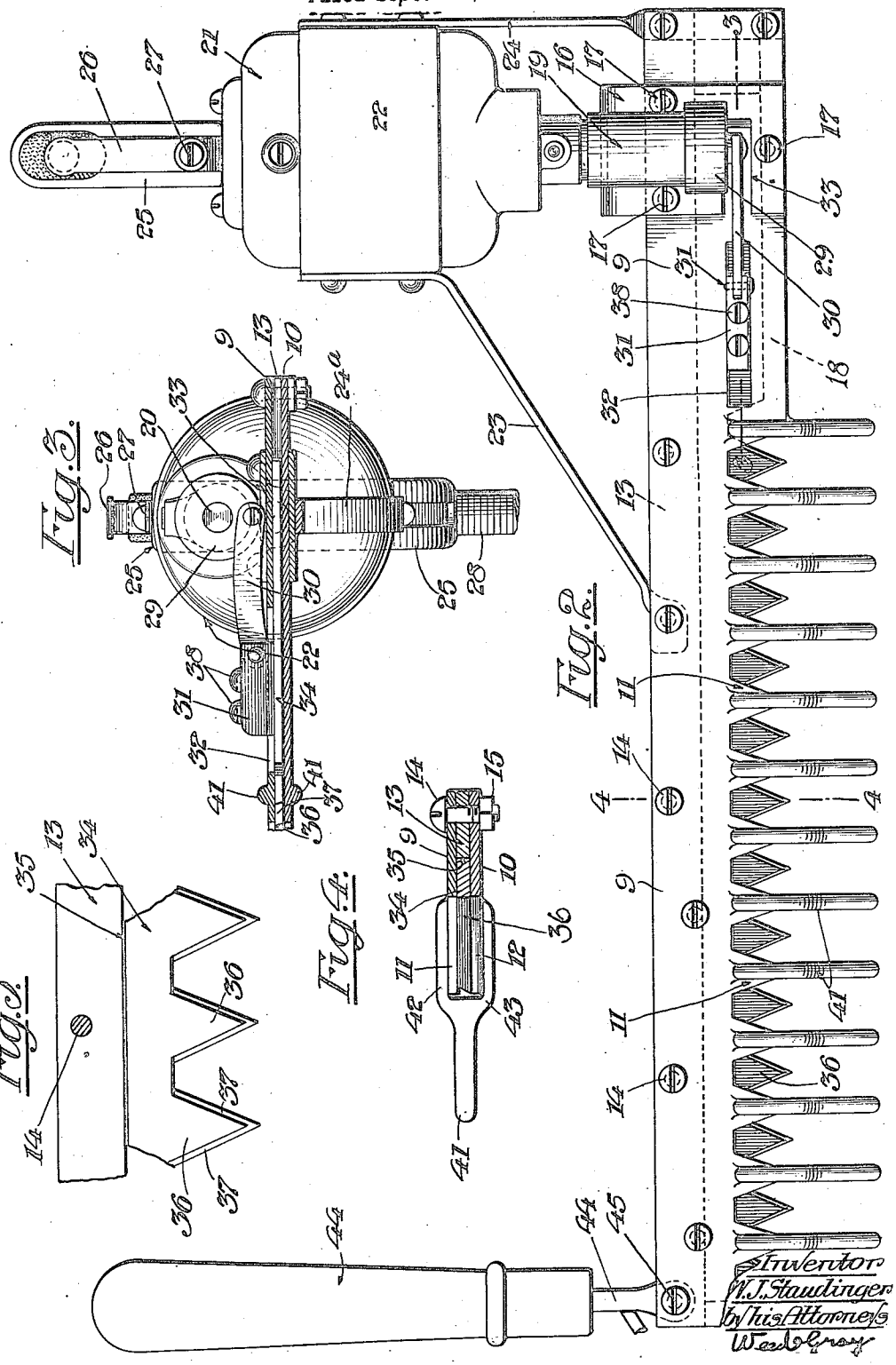

Patented June 12, 1923. 1,458,250

UNITED STATES PATENT OFFICE.

WILLIAM J. STAUDINGER, OF BROOKLYN, NEW YORK.

HEDGE CUTTER.

Application filed September 29, 1922. Serial No. 591,235.

To all whom it may concern:

Be it known that I, WILLIAM J. STAUDINGER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Hedge Cutters, of which the following is a specification.

This invention relates to hedge cutters, an object thereof being to provide an improved hedge cutting device which will be compact, light and relatively simple in construction, easily and readily manipulated, relatively inexpensive to manufacture, and durable and serviceable in use.

Other objects of this invention will appear in the following description thereof, reference being had to the accompanying drawings forming a part of this specification wherein like reference characters indicate corresponding parts in the several views and wherein Figure 1 is an end elevation illustrating my invention. Fig. 2 is a plan view thereof partly broken away at one end. Fig. 3 is a fragmentary longitudinal sectional view taken substantially on line 3—3 of Fig. 2. Fig. 4 is a cross section taken in lines 4—4 of Fig. 2. Fig. 5 is a fragmentary plan view illustrating the cutter blade with relation to the spacing bar for the supporting plates of the device; and Fig. 6 is a fragmentary plan view illustrating one end of the device.

In the drawings I have herein illustrated a preferred embodiment of my invention, although of course it is understood that changes in the details of construction, form and design may be made without in any way departing from the spirit of the invention.

In carrying out my invention it will be seen that this improved hedge cutter comprises a pair of elongated supporting plates or bars 9 and 10 of suitable length and width, the supporting plates being placed in juxtaposition and alignment and having the forward edges thereof notched or cut away at suitable intervals to form preferably V-shaped teeth 11 and 12. It will be seen that the teeth 11 of the top supporting plate 9 are in vertical alignment with the teeth 12 of the bottom supporting plate 10, and preferably the side edges of the bottom series of teeth 12, are beveled upwardly and outwardly to form cutting edges. The top and bottom supporting plates or bars 9 and 10 are held in spaced relation by means of a spacer bar 13, which may be of substantially the same length as the supporting plates but is of less width than such plates. Through the medium of the bar or plate 13 the supporting plates 9 and 10 are secured together, as by means of bolts 14 and nuts 15.

At one end of the supporting plates is mounted a U-shaped bracket 16, the ends of which embrace the supporting plates 9 and 10 and are preferably bolted thereto as at 17. A short spacer or plate 18 is secured in position between the forward edges of the plates 9 and 10, this plate extending as far as the guide members and cutting teeth hereinafter described. A bearing sleeve 19 is secured to the bracket 16 and within this bearing rotates the arbor 20 of a suitable motor 21. This motor may be of any suitable character and is preferably an electrically driven motor of light construction. A supporting strap 22 embraces or surrounds the motor to which are secured a pair of supporting brackets 23 and 24, bolted to the supporting plates 9 and 10. A supporting brace 24^a is also secured to the bracket 16 and bolted to the strap 22 as at 22^a. At the rear of the motor 21 is connected a suitable handle 25 and a switch 26 connected at 27 to the upper part of the handle is located in position for convenient operation by the thumb of the user, power being transmitted to the motor by means of a cord connection 28.

At the forward end of the arbor 20 of the motor 21 is secured an eccentric 29. A crank arm 30 is pivotally connected to this eccentric and is also pivoted to a reciprocating slide member 31, the supporting plate 9 being cut away at 32 to form a guideway for the slide 31. The bracket 16 is also cut away at 33 to provide suitable space for the operation of the crank arm 30.

By means of the spacer plate 13 the top and bottom supporting plates 9 and 10 are spaced apart sufficiently to form a guideway at the forward portion thereof for a reciprocating cutter blade or bar 34. This cutter bar is of less width than the width of the supporting plates and is located between the front edge 35 of the plate 12 and the forward ends of the teeth 11 and 12. The cutter bar 34 is notched out or cut away at intervals to form cutting teeth 36 of substantially the same size as the two series of aligned teeth 11 and 12. The opposed side

edges 37 of the teeth 36 are beveled in an opposite direction to the bevel of the teeth 12 and form cutting edges cooperating with the cutting edges of the bottom teeth 12. The reciprocating slide member 31 is secured to the cutter bar 34 as by means of suitable screws 38 and adjacent to the opposite end of the supporting plates a guide member 39 is secured at 40 to the cutter bar 34 and operates in a slot 35 formed in the top supporting plate 11, the purpose of the guide 39 being to hold the cutter bar in proper relation to the suppoting plate during the operation thereof. Guide members 41 are carried by the supporting plates and extend forwardly thereof. These guide members are preferably bifurcated at 42 and 43 so as to embrace the supporting plates and each aligned pair of teeth 11 and 12 is provided with a guide member 41 which is secured in any suitable manner. The members 41 are preferably blunt at their forward ends and form not only means for guiding the material to be cut into the path of operation of the cutting teeth but also form guards for preventing inadvertent injury to the user. It will be noted that the motor 21 with the handle 25 connected thereto is mounted at one end of the supporting means, and adjacent to the opposite end thereof is mounted a handle 44 which is also bolted to the supporting means at 45.

From the foregoing construction it will be seen that an improved hedge cutter of relatively simple and inexpensive construction is provided. The device is relatively light and easy to handle, and the position of the handles and motor with relation to the supporting means is such as to provide a well balanced structure which can be manipulated with great facility. It will also be noted that the bottom supporting plate 10 is provided with cutting teeth which cooperate with the cutting teeth of the reciprocating cutter bar, and that the teeth 36 of the latter operate within the area of the supporting plates. The entire device is constructed with a minimum number of parts and may be very quickly assembled and dismounted. The cutter bar 34 can be readily and quickly removed merely by removing the screws 38 and 40 and then sliding the cutter bar endwise from between the plates 9 and 10.

It will be understood that by describing in detail herein any particular form, structure, or arrangement it is not intended to limit the invention beyond the terms of the several claims or the requirements of the prior art.

I claim as my invention:

1. In a hedge cutter, the combination of supporting means comprising a pair of supporting plates, means extending between said plates for spacing them apart, a cutter blade adapted to be reciprocated between said plates, a motor carried by said supporting means at one end thereof, and a pair of handles at opposite ends of the supporting means for manipulating the hedge cutter.

2. In a hedge cutter, the combination of supporting means comprising a pair of supporting bars, means for spacing said bars apart, one of said bars having cutting teeth, a toothed cutter blade cooperating with said cutting teeth and adapted to be reciprocated between said supporting bars, a motor carried by the supporting means for operating the cutting blade, and a pair of handles connected at each end of the supporting means for manipulating the hedge cutter.

3. In a hedge cutter the combination of supporting means comprising a pair of juxtaposed plates spaced apart and having correspondingly formed teeth along one edge thereof, the teeth of one plate forming cutting edges, a toothed cutter bar operable between said plates and having the teeth thereof operative within the area of the plates, guide members extending forwardly of said cutting teeth, a motor carried by the supporting means for operating said cutter bar, and handles for manipulating the hedge cutter.

4. In a hedge cutter the combination of a pair of spaced supporting bars each having a series of notches along one edge forming vertically alined pairs of spaced teeth, the teeth of one series having cutting edges, a toothed cutter bar adapted to be reciprocated between said supporting bars and having cutting teeth operating within the area of both of said series of teeth, guide members connected to the supporting bars, means for reciprocating the cutting bar and handles for manipulating the hedge cutter.

5. In a hedge cutter the combination of a pair of spaced supporting bars each having a series of notches along one edge forming vertically alined pairs of spaced teeth the teeth of one series having cutting edges, a toothed cutter bar adapted to be reciprocated between said supporting bars and having cutting teeth operating within the area of both of said series of teeth, guide members connected to the supporting bars, a motor carried at one end of the supporting bars for reciprocating the cutter bar, a handle connected to said motor, and a handle connected at the opposite end of the supporting bars.

6. In a hedge cutter the combination of spaced supporting bars, a spacing bar of less width than the supporting bar extending therebetween adjacent to one edge thereof and through the medium of which said supporting bars are secured together, one of said supporting bars having a series of cutting teeth along one edge, a cutter bar adapted to be reciprocated between the supporting bars and having teeth cooperating with

said first teeth, guide members connected to the supporting bars, motor driven means for reciprocating the cutter bar, and a pair of handles for manipulating the hedge cutter.

7. In a hedge cutter the combination of spaced supporting bars, a spacing bar of less width than the supporting bar extending therebetween adjacent to one edge thereof and through the medium of which said supporting bars are secured together, one of said supporting bars having a series of cutting teeth along one edge, a cutter bar adapted to reciprocate between the supporting bars and having teeth cooperating with said first teeth, guide members embracing said supporting bars and having the major portion thereof extending forwardly of said bars, and motor driven means for operating the cutter bar.

8. In a hedge cutter the combination of supporting means, a reciprocating cutter bar, guide members connected to the supporting means, a motor supported in position at one end of said supporting means, a handle connected to the motor, and a handle connected to the supporting means adjacent to the opposite end thereof.

9. In a hedge cutter the combination of supporting means comprising top and bottom supporting plates having each a series of correspondingly formed alined teeth, the teeth of the bottom plate having cutting edges, means for spacing said plates apart and through the medium of which the plates are secured together, a cutter blade having teeth cooperating with said cutting edges and adapted to be reciprocated between and within the area of said plates, a motor for reciprocating the cutting blade, and guide members secured to the supporting means and projecting therefrom.

10. In a hedge cutter the combination of supporting means comprising top and bottom supporting plates each having a series of correspondingly formed alined teeth, the teeth of the bottom plate having cutting edges, an intermediate plate of less width than said supporting plates for spacing said plates apart and through the medium of which the plates are secured together, a cutter blade, of less width than said supporting plates and having teeth cooperating with said cutting edges and adapted to be reciprocated between and within the area of said plates, a motor connected at one end of the supporting means for reciprocating the cutter blade, a handle connected to the motor, a second handle connected to the supporting means adjacent to the opposite end thereof, and guide members secured to and embracing the alined teeth of the supporting plates and projecting forwardly therefrom in spaced relation.

Signed at New York city, New York (1822 Park Row Building), this 27th day of September, 1922.

WILLIAM J. STAUDINGER.