

July 27, 1965

H. W. JOHANSON ETAL
CHAIN SAW ADAPTER AND ATTACHMENT FOR OPERATING
POWER DRIVEN MECHANISMS
Filed May 16, 1962

3,197,162

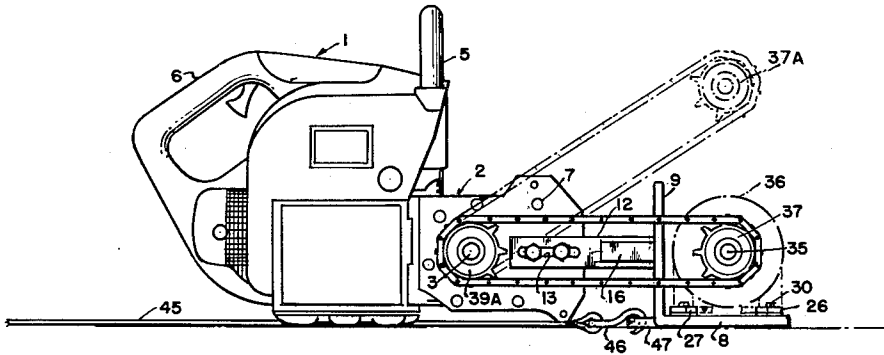


Fig. 1

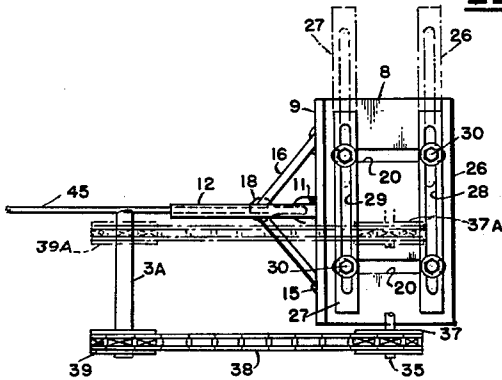


Fig. 2

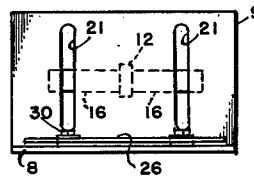


Fig. 3

HERBERT W. JOHANSON
CALVIN W. JOHANSON
INVENTORS

BY *James A. Gorman*
ATTY

1

3,197,162

CHAIN SAW ADAPTER AND ATTACHMENT FOR OPERATING POWER DRIVEN MECHANISMS

Herbert W. Johanson, 420 W. Scenic Drive, The Dalles, Oreg., and Calvin W. Johanson, 8403 NE. St. Johns Road, Vancouver, Wash.

Filed May 16, 1962, Ser. No. 195,077

1 Claim. (Cl. 248—23)

This invention relates generally to improvements in engines of the internal combustion type ordinarily used with chain saws and provided with a gear casing having a power take-off shaft extending outwardly therefrom and driven by the engine.

More particularly the invention relates to, and has for its principal object the provision of, a device for attachment to the gear casing of the engine to render the engine capable of accomplishing numerous operations such as supplying the motive power for water pumps, winches, light plants, wheel-supported carts, and other power driven devices and instrumentalities used by woodsmen.

Another object of the invention is to provide a device of the character described which is of extremely simple construction and which may be quickly and conveniently applied to, or removed from an engine of the type referred to without modification of the conventional structure of the engine.

The foregoing and other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof and in which:

FIGURE 1 is a side elevational view of an engine of the type ordinarily used with chain saws with the saw bar removed therefrom and replaced by a sprocket wheel incorporated in the device made in accordance with our invention, also shown in side elevation and secured to the gear casing of the engine,

FIGURE 2 is a top plan view of the device removed from the engine and fragments of a drive shaft, driven shaft, sprockets and sprocket chain associated therewith, and

FIGURE 3 is a front elevational view of the device.

Referring now more particularly to the drawing wherein like references of character designate like parts reference numeral 1 indicates generally an engine of the internal combustion type ordinarily used with chain saws and having a gear casing 2 mounted on the forward end thereof and provided on its interior with a gear train (not shown) operatively interconnecting the engine with a power take-off shaft 3.

The forward end of the engine is provided with an upwardly and downwardly extending handlebar 5 and a rearwardly extending hand grip 6.

The gear casing 2 is provided with studs 7 which normally support and position a saw bar (not shown) forwardly relative to the engine.

The device of our invention is of right-angular shape in side elevation and comprises a solid flat bottom wall 8 equal in width to the height of an integral solid flat vertical rear wall 9 to which is welded, as at 11, the forward end of a supporting arm 12 whose rearward end portion is provided with an elongated horizontal slot 13. Also welded to the rear wall 9, as at 15, are the forward

2

ends of diagonal braces 16 whose rearward ends are welded as at 18 to the supporting arm 12.

The bottom wall 8 of the device is provided with elongated parallel slots 20 and the rear wall 9 with similar slots 21.

Two flat bars 26 and 27, slotted as 28 and 29, substantially throughout their length, are removably and adjustably secured to the bottom wall 8 of the device by means of bolts 30 extending through said slots 28 and 29 and through the slots 20 of the flat bottom wall 8. By this arrangement, various types of power driven instrumentalities, as aforesaid, having unlike hold down bolt centers may be securely mounted upon the bottom wall 8 by adjusting the flat bars 26-27 and their respective bolts toward or away from each other transversely of the bottom wall or the bars lengthwise thereof by adjusting the bars relative to their respective bolts as shown in broken lines in FIGURE 2.

With the bars in the full-line position shown in FIGURE 2, the driven shaft 35 of a power driven instrumentality (for example, an electric generator 36, FIGURE 1) and a sprocket wheel 37 secured thereto and disposed to one side of the bottom wall 8 may be driven by a sprocket chain 38 entrained over a sprocket wheel 39 secured to the outer end of an extension 3A which may be secured in any suitable manner to the power take-off shaft 3 of the engine. Other instrumentalities having a driven shaft center located above the rear wall 9 may be similarly adjusted lengthwise of the bottom wall 8 of the device to position their driven sprocket 37A in alignment with the power take-off sprocket 39A of the engine 1.

For stabilizing the engine 1 and its related parts or for anchoring the same against pulling stresses of a winch, for example, mounted upon the device we provide a cable 45 provided at one of its ends with a hook or eye 46 attachable to a lug 47 integrated with the bottom portion of the vertical rear wall 9 with the opposite end of the cable secured by any suitable means, not shown, to a tree, tree stump, or other suitable point of securement. The cable, preferably though not necessarily, runs from the device and along the ground under the engine so that the pulling stresses will be in a straight line from the bottom wall 8 to the cable anchorage. By means of the parallel vertical slots 21 in the vertical wall 9 of the device power driven instrumentalities having side mounting feed or lugs may be adjustably secured to the vertical wall. Also, the flat bars 26 and 27 may be used with the slots 21 in the same manner as they are with the bottom wall 8.

While we have shown a particular form of embodiment of our invention, we are aware that many minor changes therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the invention. Having thus described our invention what we claim as new and desire to protect by Letters Patent is:

A support for a power driven instrumentality, said support comprising an angle section having a forwardly extending horizontal bottom flange and a rearwardly disposed vertical flange, a rearwardly extending horizontal arm secured to said vertical flange at the center thereof, means carried by the outer end of said arm adapted for adjustable securement to a power transmission casing of an internal combustion engine,

3

said bottom flange of the support having forwardly extending slots therein paralleling said arm, a pair of elongated flat bars each having a slot therein extending substantially throughout the length thereof,

locking bolts extending through said slotted bars and through said parallel slots in the horizontal bottom flange and thereby adapted to secure a power driven instrumentality in any forwardly or rearwardly adjusted position relative to said bottom flange to accommodate various lengths of driving connections between said power driven instrumentality and a gear casing of an internal combustion engine, and said vertical flange having a pair of vertically disposed parallel slots therein to selectively accommodate said

4

bars and said locking bolts for adjustably mounting a power driven instrumentality to the vertical flange.

References Cited by the Examiner

UNITED STATES PATENTS

1,216,148	2/17	Longwell	-----	254—186
2,446,645	8/48	Flinchbaugh	-----	74—16
2,930,585	3/60	Reeves	-----	254—186

FOREIGN PATENTS

410,283	3/25	Germany.
---------	------	----------

LOUIS J. DEMBO, *Primary Examiner.*

LEYLAND M. MARTIN, SAMUEL F. COLEMAN,
Examiners.