May 24, 1949. W. R. BOYDSTUN 2,470,974

POST DRIVER

Filed Nov. 3, 1945

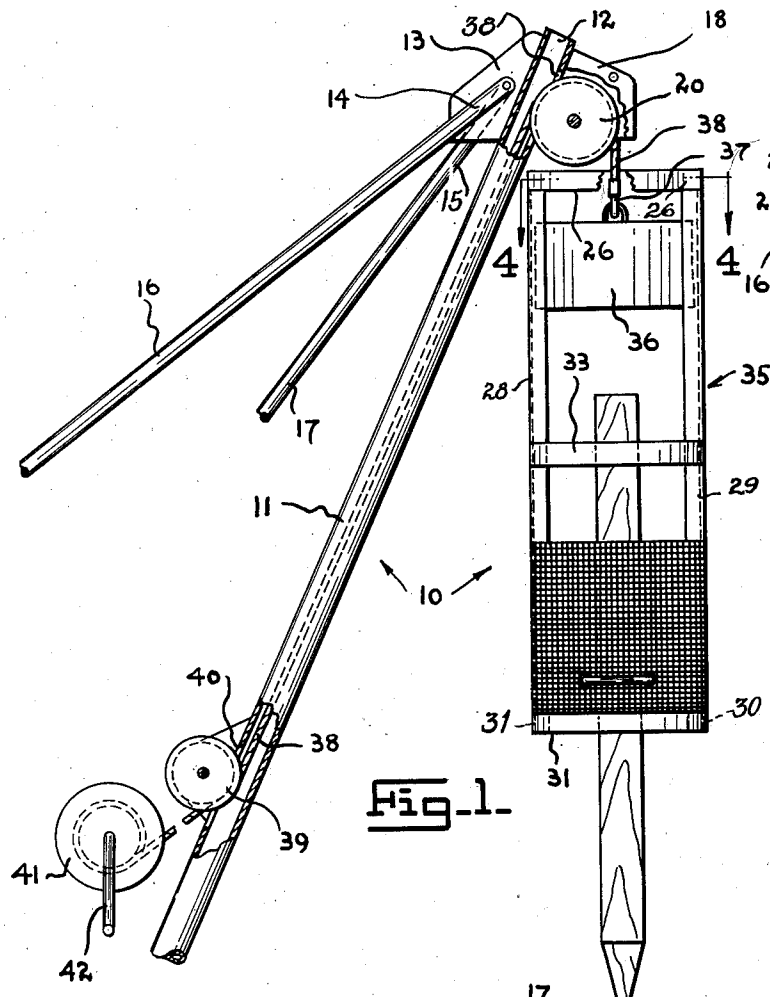


Fig-1-

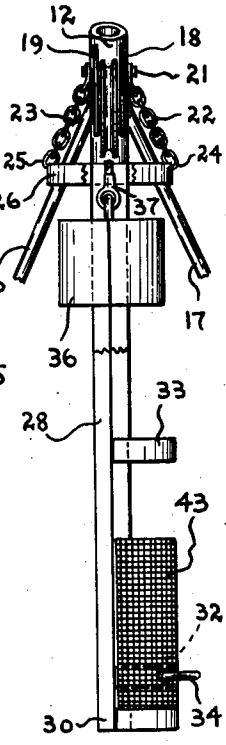


Fig-2-

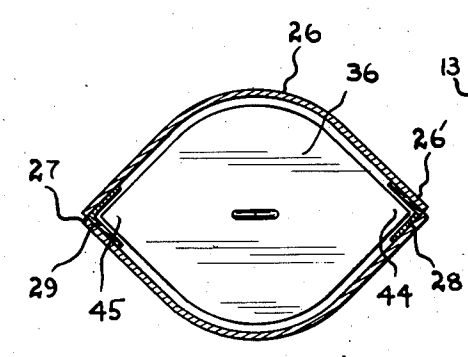


Fig-4-

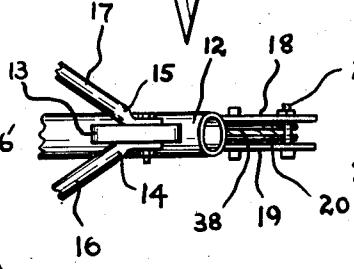


Fig-3-

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POST DRIVER

Willard R. Boydstun, Baker, Oreg.

Application November 3, 1945, Serial No. 626,520

1 Claim. (Cl. 61—73)

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My invention as described herein, and illustrated in the accompanying drawings, consists of a post or pole driver, an object of which is to provide means whereby posts may be rapidly driven into the ground.

Another object of my invention is to provide a post driving device operated from a tractor.

A further object of this invention is to provide a cable operated hammer for driving a post or pole.

Another object of my invention is to provide a boom having a hammer guide suspended therefrom.

Other features and advantages will become more readily apparent from the following description and the accompanying illustrative drawings in which:

Figure 1 is an elevational view of my device, parts being broken away,

Figure 2 is another elevational view thereof,

Figure 3 is a detail plan view of the boom head, and

Figure 4 is a sectional view taken on line 4—4 of Figure 1.

In the accompanying drawings, and in the following specification, the same reference characters are used to designate the same parts and elements throughout and in which 10, refers to my invention in its entirety and 11, indicates a tubular boom to the head end 12, of which is welded a fin 13, to which are secured the upper ends 14 and 15, of brace rods 16 and 17, and to the lower side of the end 12, is welded a pair of spaced plates 18 and 19, which form bearings for a sheave 20.

Suspended from the outer sides of plates 18 and 19, by a bolt 21, are chains 22 and 23, which are connected at their lower ends 24 and 25, to a ring band 26, ovate-lanceolate in form, the V-shaped ends 26' and 27, of which have fixed thereto depending angle or V-irons 28 and 29, which are connected at the ends 30 and 31, and intermediate their length by semi-circular bands 32 and 33, a guide handle 34, being provided on the lower band 32.

The cage 35, formed by the elements 26 to 33, provides a guide for a weight 36, suspended from the end 37, of a cable 38, which operates over the sheave 20, which hangs in a position over the cage that the end 37, of the cable is centered over the cage. The sheave also projects into a slot 38, in said pipe head 12, in order that the cable may operate through the tube 11, to a sheave 39, mounted on the lower end of the boom 11, and projecting part way through a slot 40, therein. From the sheave 39, the cable extends to a winch 41, which may be operated by a crank 42, or from the motor of a truck or tractor (not shown) upon

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which members 11, 16 and 17, are mounted. A screen 43, encases one side of the cage to protect the operator of the device from the hammer. The V-ends 44 and 45, of the hammer or weight 36 are held within the angle or V-tracks 27 and 28, whereby it cannot swing about in its up and down movement.

In use, the cage 35 is disposed over a post, stake or pole, as shown in Figure 1 of the drawings, and the cable 38 wound on the winch 41 to raise the weight and then released to drop the weight or hammer 36 against the top end of the stake to drive the same into the ground by repeated operation of raising and dropping the weight against the stake. When this is done, the device is moved by the truck or tractor to another location for driving another stake.

It is thought that persons skilled in the art to which the invention relates will be able to obtain a clear understanding of the invention after considering the description in connection with the drawings. Therefore, a more lengthy description is regarded as unnecessary.

Changes in shape, size and rearrangement of details and parts such as come within the purview of the invention claimed may be resorted to, in actual practice, if desired.

Having now described my invention that which I claim as new and desire to procure by Letters Patent is:

In a pile driver including a boom having a housing at one end and a pulley rotatably mounted in said housing for supporting a hammer engaging line, a hammer guide frame including an upper portion and a lower portion, angle members connecting said portions for guiding a hammer slidable therein, means pivotally securing the upper portion of the hammer guide frame relative to the housing, a hammer slidably and non-rotatably mounted in said hammer guide frame, and hand receiving means carried by said cage for retaining the same at an inclined angle relative to a ground surface in which a post is being driven, said hammer guide frame being open at one side facilitating the same to engage an existing fence wire during the driving of a post.

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The following references are of record in the file of this patent:

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