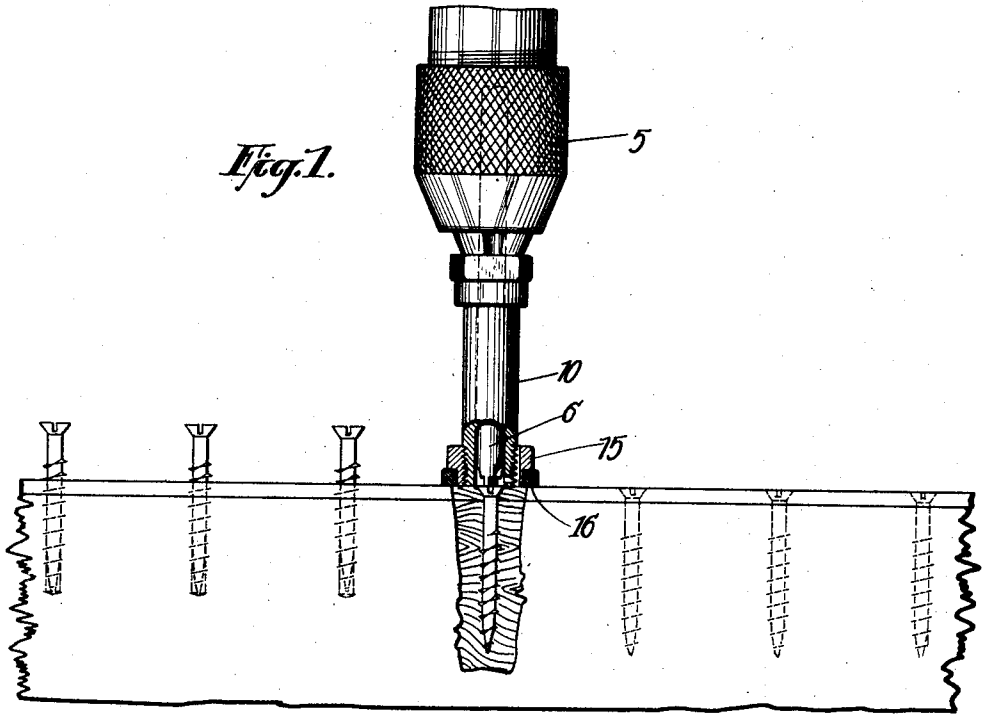
Oct. 4, 1927. 1,644,074

E. G. MORGAN

ELECTRIC SCREW DRIVING GUIDE

Filed Sept. 3, 1924

Fig. 1.



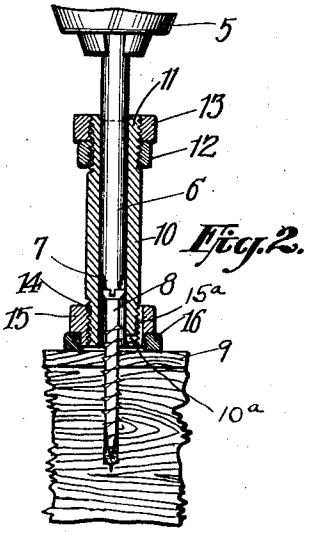


Fig. 2.

Fig. 3.

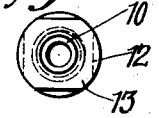
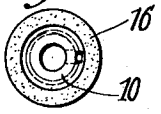


Fig. 4.



INVENTOR.
EDWIN G. MORGAN.
BY Richard A. Owen.
ATTORNEY.

Patented Oct. 4, 1927. 1,644,074

UNITED STATES PATENT OFFICE.

EDWIN G. MORGAN, OF FLUSHING, NEW YORK.

ELECTRIC SCREW-DRIVING GUIDE.

Application filed September 3, 1924. Serial No. 735,676.

This invention relates to a screw driving guide and more particularly to a novel and improved device particularly adapted for use in connection with electric drivers whereby accurate work may be facilitated.

One of the objects of my invention is to provide an auxiliary guide to be used in connection with any conventional type of electric screw driving tools or machines whereby the screws may be accurately driven through the work to the proper depth without particular attention on the part of the operator.

In the construction of hydroplane bodies particularly where the screws must be driven through the work at uniform depth and in close proximity to each other, it has been heretofore very difficult to regulate the electric driving tool with the result that some of the screws are not properly driven, very often break, and the work is a slow and tedious operation. My attachment or auxiliary device is particularly adapted for this character of work in that the screwdriving operation is rendered absolutely accurate, the depth or distance through which the screw driver operates may be regulated for different lengths of screws and otherwise permits the work to be speeded up.

In order to more fully understand the purposes and nature of my invention reference is had to the accompanying drawings showing a preferred embodiment thereof and which, taken in connection with the specification, fully sets forth the construction in which,

Figure 1 is a view partly in section showing the relation of the guide to the screw driver and chuck.

Figure 2 is a vertical, sectional view through the guide showing the screw about to be driven into the work.

Figure 3 is a plan of the said guide.

Figure 4 is a bottom view thereof.

Referring now to the drawings wherein like reference characters designate corresponding parts throughout the several views, 5 designates the chuck of the electric drill and 6 the screw driver, the operating end 7 of said driver being bevelled so as to engage the head of the screw 8 in the reamed screw hole of the piece of work designated in its entirety by numeral 9. My invention proper consists of a sleeve 10 which is preferably case hardened, said sleeve being threaded at its upper end 11 on which I have provided an adjusting collar 12 and lock nut 13, whereby the distance of the downward movement of the chuck may be regulated. The lower end of the sleeve is externally threaded as indicated at 14 and is also provided with an internally threaded adjustable collar 15. The collar 15 is formed with an annular, circumferential groove in which I have positioned a resilient ring preferably of rubber and which is adapted to engage the work. When the screw driver is operated and engages the nut 13, the ring 16 will absorb the shock or action of the screw driver which, of course, is thus limited, or in other words, regulates the depth to which the screw is driven. The ring 16 also has the tendency to maintain the guide 10 in its proper position while the driving operation is being performed and also prevents the work from being marred as the result of too great a driving power being exerted. When the driver 6 is inserted through the sleeve, the bevelled point of the said driver will readily engage the slot at the head of the screw and a perfectly vertical, horizontal and straight driving operation is effected, thus preventing the screw from being driven through the work at an angle, preventing the splitting of the work. In actual practice, the screws are generally lubricated as by dipping in oil or soap so that they may more easily penetrate the hard wood and in order to permit the lubricant to flow out of the sleeve 10, a transverse aperture 10^a is provided, which aperture is in communication with a vertical aperture 15^a of the collar 15. The regularity, precision and accuracy with which the screws may be driven as well as the rapidity will prove the device highly useful for various kinds of work.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:—

A guide for screw driving tools comprising

a cylindrical, hollow sleeve, said sleeve being externally threaded, at its top and bottom, a plurality of adjusting nuts on the upper end of the threaded portion and an adjusting nut on the lower threaded portion of the sleeve, the lower of said adjusting nuts having an annular groove therein, and a rubber ring within the said groove extending slightly below the surface of the said nut to absorb the shock when the top of the sleeve is engaged by the tool.

In testimony whereof I affix my signature.

EDWIN G. MORGAN. [L. S.]