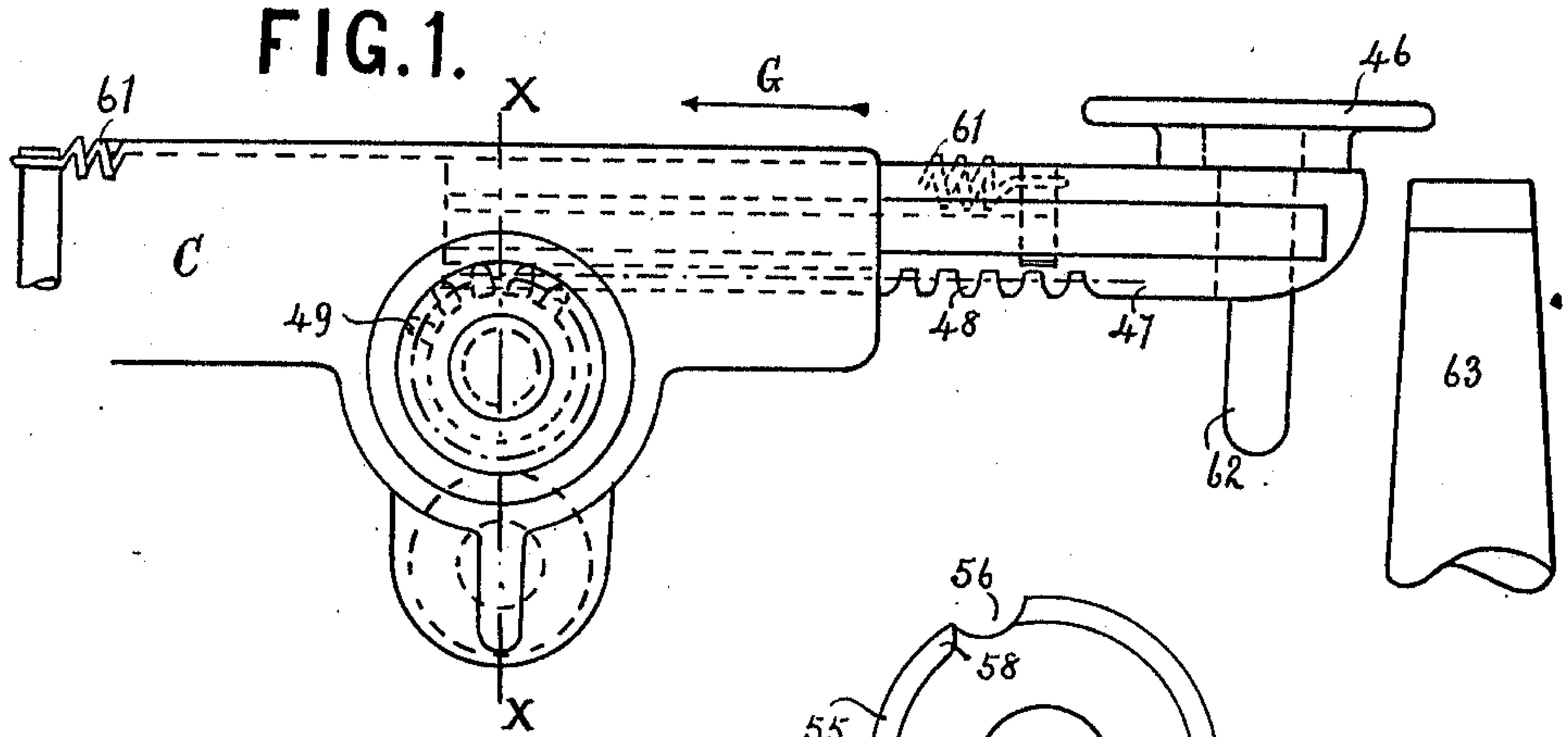
M. T. DENNE.

EDGE GAGE FOR USE ON SLUGGING, NAILING, OR LIKE MACHINES.

APPLICATION FILED DEC. 18, 1909.

993,764. Patented May 30, 1911.

FIG.1.



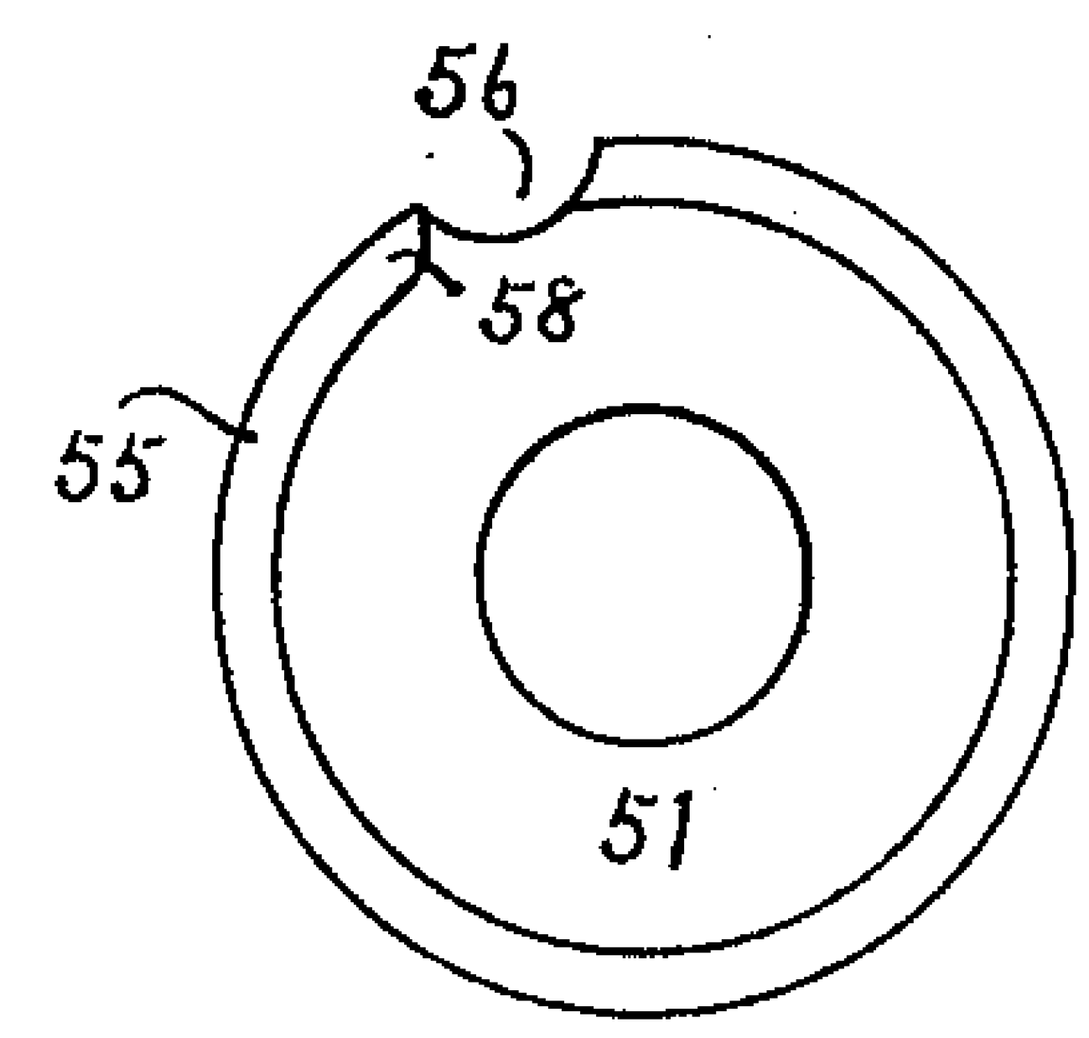
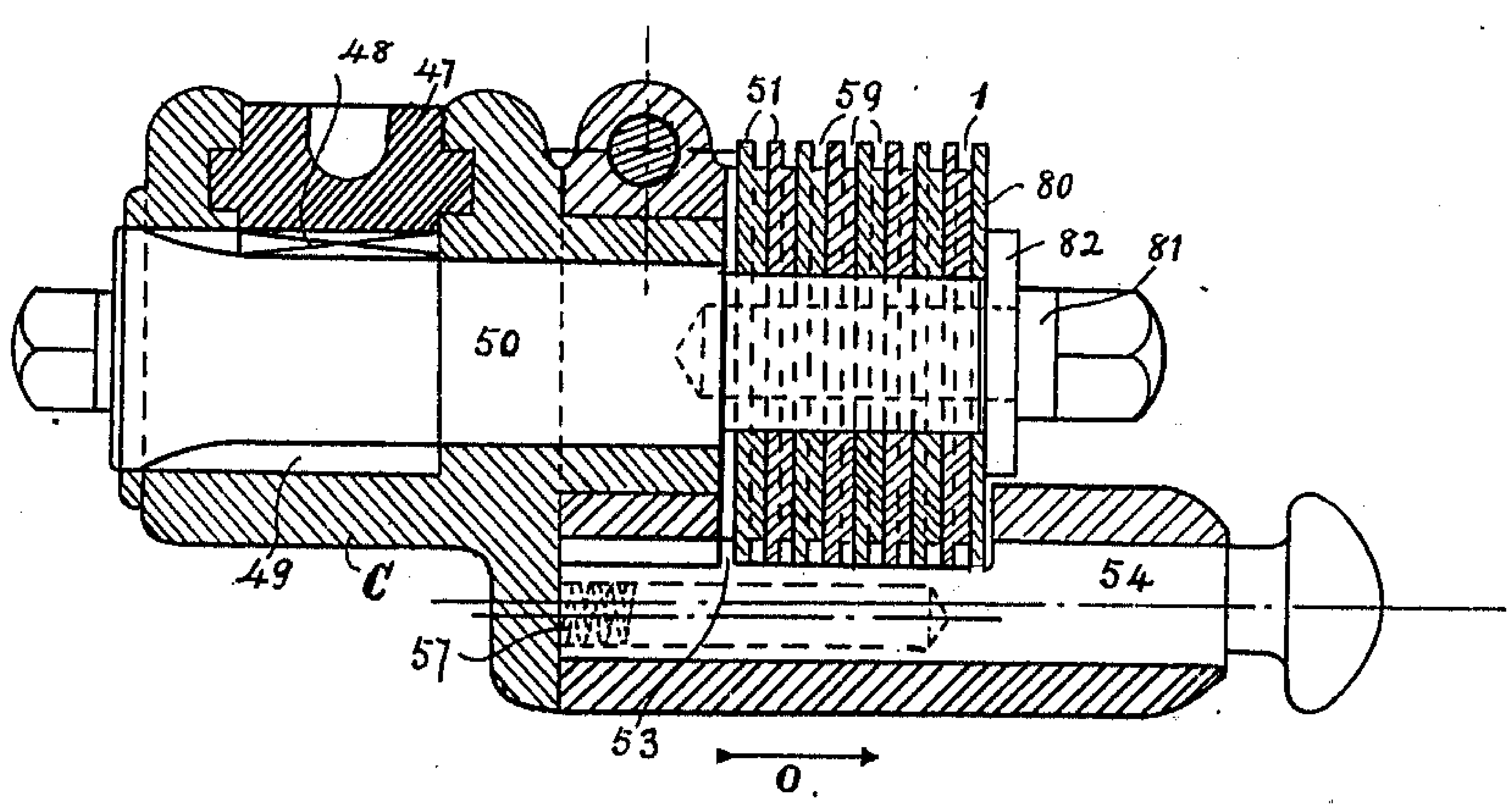


FIG. 3.

FIG. 2.



Witnesses:
Fred S. Greenleaf.
Joseph M. Ward.

Inventor.
Mark T. Denne,
by Crosby Gregory.
Attys.

UNITED STATES PATENT OFFICE.

MARK THOMAS DENNE, OF RUSHDEN, COUNTY OF NORTHAMPTON, ENGLAND.

EDGE-GAGE FOR USE ON SLUGGING, NAILING, OR LIKE MACHINES.

993,764. Specification of Letters Patent. Patented May 30, 1911.

Original application filed October 22, 1907, Serial No. 398,589. Divided and this application filed December 18, 1909. Serial No. 533,964.

To all whom it may concern:

Be it known that I, MARK THOMAS DENNE, a subject of the King of Great Britain and Ireland, residing at Rushden, Northampton county, England, have invented new and useful Improvements in Edge-Gages for Use on Slugging, Nailing, or Like Machines, of which the following is a specification.

This invention has reference to an improved edge gage suitable for use on slugging or nailing machines or the like, in which the gage is set for the different rows of slugs to be driven by the operator merely pressing on a rod or a knob or equivalent thereon and which rows of slugs may be spaced apart to—within limits—any desired and predetermined extent and in which the gage is reset, after say one boot has been completed ready for the next, by the operator merely pulling out the bar carrying the edge roll.

My invention is illustrated in side elevation in Figure 1 of the accompanying drawing Fig. 2 being a sectional view on line X—X of Fig. 1; and Fig. 3 is a face view of one of the disks hereinafter to be referred to.

In carrying my invention into practice I mount an edge roll 46 or equivalent on a bar 47 which latter is slidably carried by a suitable frame C to be attached to the slugging or other machine. The edge roll 46 or equivalent is to serve as the guide against which the work is held when being operated on and the frame, it will be understood, must be fixed to the machine so that the said edge roll or equivalent is supported and adapted to move in proper relation to the horn D or other work support in the usual manner.

The bar 47 is formed with a rack 48 with which a toothed pinion 49 gears and I provide a spring 61 attached at one end to the bar 47 and at its other end to a stationary part for example to the frame C, which spring serves to move the bar 47 and consequently the edge roll in the direction of the arrow G, *i. e.* away from the horn, when the pinion 49 is set free as will be hereinafter explained.

On the extension of the shaft 50 on which the pinion 49 is fixed I mount a series of disks 51 each of which is formed at one edge with a flange or rim 55 so that when the disks are placed together as shown a series of peripheral grooves 59 are formed between the flanges or rims of the disks. Each flange or rim 55 has a part cut out so as to form a gap 56 and the disk at one edge of the gap is formed with a projection or stop 58 said stop being flush with said edge.

At a suitable position, for example below the disks 51, I provide a slidable rod 54 having a finger 53 to project into one or other of the grooves 59 and which rod is normally impelled in the direction indicated by the arrow O by a spring 57 the rod 54 being incapable of rotary movement.

It will be evident that the spring 61 will have the effect to rotate the disks 51 until the finger 53 is contracted by the stop 58 in the particular groove 59 in which the finger is for the time situated, said finger preventing further rotation of the disks and consequently preventing further movement in the direction of the arrow G of the bar 47 and its edge roll. Assuming that the rod 54 is in the position so that its finger 53 is in the first groove 59 (marked 1) the stop on the disk will be against the said finger and the gap 56 in the rim of said disk will be opposite or in alinement with said finger. If now the rod 54 be pushed in the direction opposite to that indicated by the arrow O, *i. e.* in opposition to the spring 57, the finger 53 will pass through the gap in the rim 55 of the first disk and will enter the grooves 59 of the second disk. The effect of this will be that the disks will be permitted to rotate until the stop 58 on the second disk contacts with the finger 53 the extent or amount of rotation being according to the angular distance between the stop in the groove of the first and that in the groove of the second disk, and consequently the bar 47 and its edge roll will have moved away from the horn a proportional distance so that the distance from the edge of the work at which the second row of slugs is to be driven will have been determined. If the rod 54 be again depressed as described, its finger will pass into the third groove and the edge gage will move a farther distance from the horn, and so on.

The disks will of course be so adjusted on their shaft 50 that the edge roll will move the requisite distance when the rod 54 is operated.

In order to move the edge roll toward the horn it is only necessary to pull it in that direction—against the action of spring 61—and to facilitate this I provide the bar 47

with a lug 62 which may be engaged by the operator's finger. The pulling of the edge roll as described is to rotate the pinion 49 shaft 50 and disks 51 and as these latter by this rotation will in succession bring their gaps 56 opposite the finger 53 of the rod 54 the spring 57 will in succession push said finger through the said gaps until the pull on the lug 62 ceases or until the finger 53 has passed through the gaps of all the disks when it will come in contact with a plate 80 which I provide on the outside of the disks 51.

The disks may be held frictionally together and in engagement with the shaft 50 by a set-screw 81 and washer 82 or by any other known means.

What I claim as my invention and desire to secure by Letters Patent is:—

An edge gage for use on slugging, nailing or like machines, comprising an edge roll carried on a bar slidable in a frame, a spring tending to move the said bar in a direction away from the work support of the machine to which the gage is applied, a rack on said bar gearing with a toothed pinion fixed on a spindle rotatably carried by the said frame, a series of disks adjustably fixed on said spindle and having projecting rims formed with gaps and with stops adjacent to said gaps, and a spring-operated slidable rod having a finger to project between said rims, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARK THOMAS DENNE.

Witnesses:
W. H. Seahy,
F. Hood.