

E. W. LOUDER.
 DEVICE FOR TURNING CRANK PINS.
 APPLICATION FILED AUG. 7, 1911.

1,042,578.

Patented Oct. 29, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

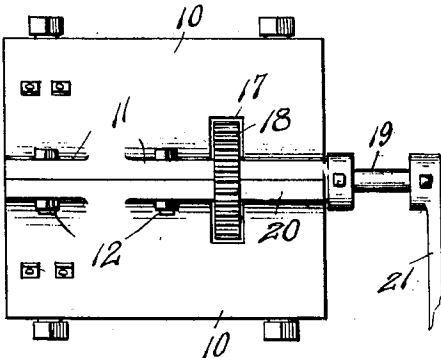
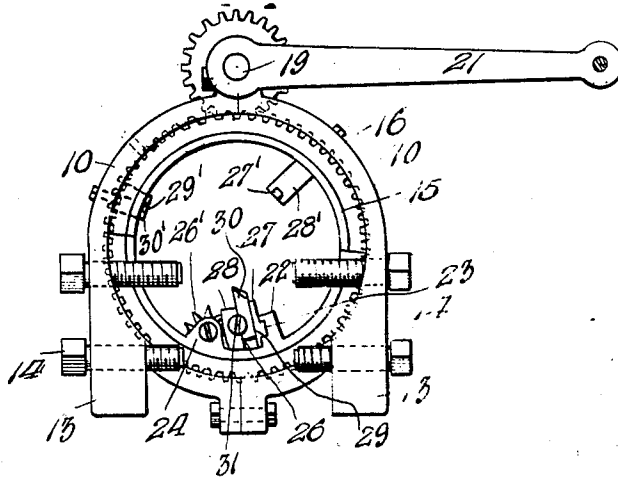
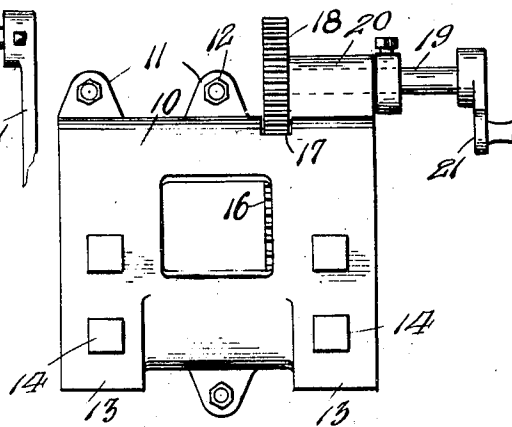


Fig. 2.

Fig. 3.



WITNESSES

G. M. Spring
 A. E. Barkley

INVENTOR

Emanuel U. Louder,
 by Frank A. Anderson
 Attorney

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2 SHEETS-SHEET 2.

Fig. 4.

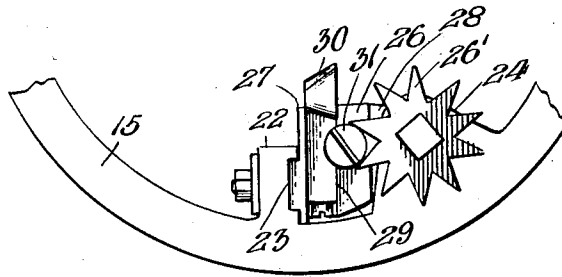


Fig. 5.

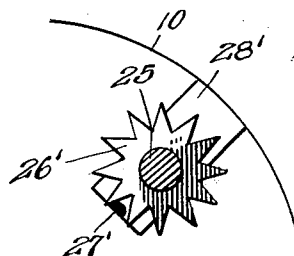
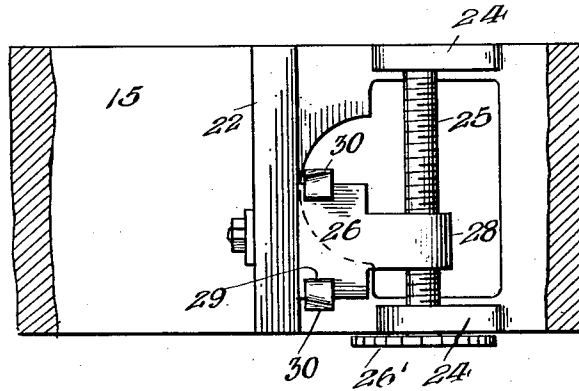


Fig. 6.

WITNESSES
 G. M. Spring
 R. E. Barkley.

INVENTOR
 Emanuel W. Louder,
 by Frank A. Hallman
 Attorney

UNITED STATES PATENT OFFICE.

EMANUEL W. LOUDER, OF SOUTHFORK, PENNSYLVANIA.

DEVICE FOR TURNING CRANK-PINS.

1,042,578.

Specification of Letters Patent.

Patented Oct. 29, 1912.

Application filed August 7, 1911. Serial No. 642,736.

To all whom it may concern:

Be it known that I, EMANUEL W. LOUDER, a citizen of the United States of America, and resident at Southfork, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Turning Crank-Pins, of which the following is a specification.

This invention relates to tools and has special reference to a device for turning crank pins.

The principal object of the invention is to provide an improved form of crank pin turner which can readily be placed in position and may be manually operated.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates an end elevation; Fig. 2 illustrates a plan view; Fig. 3 illustrates a side elevation; Fig. 4 illustrates a detail end elevation of the tool carrier; Fig. 5 illustrates a detail side view of the tool carrier and its operating screw; and Fig. 6 illustrates a detail of an operating means for said screw.

The invention consists more particularly in a casing formed of two parts 10, each provided with ears 11 and these parts are secured together with bolts 12 passing through said ears. The casing, when assembled, resembles in end elevation an inverted letter U, the legs of the U being formed by supporting legs 13 perforated for the reception of bolts 14 whereby the device may be attached to the frame of an engine or other suitable object adjacent the crank pin to be turned.

Within the casing is fitted a sectional sleeve 15 adjacent one end whereof there is provided a gear ring 16 opposite which the casing is provided with an opening 17 to permit the ring 16 to mesh with a driving

pinion 18, the latter being carried on a shaft 19 supported in bearings 20 formed on the casing. On the shaft 19 is fixed an operating crank 21 so that by turning the crank 21, the sleeve 15 is caused to rotate. On the inner side of the sleeve 15 is a rib 22 having a channel 23 cut therein. Spaced from the rib 22 and disposed opposite each end of the channeled face are bearings 24 wherein is mounted a feed screw 25. At 26 is a duplex tool carrier which is provided on one side with a lug 27, fitting the channel 23, and on the other side with a threaded ear 28, operatively engaged by the screw 25 so that as the screw is rotated, the tool carrier moves longitudinally of the casing. At each end of the carrier is a transverse slot 29 for the reception of two similar tools 30, the tools being held in adjustable position by screws 31.

The distance between the cutting points of the tools is approximately equal to the combined width of the ear 28 and the bearings 24; or, in other words, the body of the tool carrier extends slightly beyond the outer surface of the bearings and of the casing when the tool carriage is at either limit of its movement along the slotted rib and along the impeller screw 25. Therefore, by adjusting both tools to cut to the same depth, a crank pin or bearing may be "turned" equally throughout its entire length; that is, it may be turned all the way up to the crank, to which it is secured.

On the end of the feed screw 25 is a star wheel 26' which is adapted to contact alternately with a projection 27' on a bracket 28' and a projection 29' on a bracket 30', these brackets being secured in spaced relation within the casing.

In the operation of the device, the tools are adjusted so as to permit the first to pass over the pin to give a roughing cut while the remaining tool gives the finishing cut. The star wheel is turned by hand until the tool carrier is at the end of the crank pin. The crank handle is then turned. This not only revolves the sleeve and tools about the crank pin but the carrier advances along the pin by reason of the star wheel contacting with the projections on the bracket.

There has thus been provided a simple

and efficient device of the kind described and of the character specified.

I claim—

In a turning machine, a casing, a gear
5 ring operating in said casing, a sleeve movable within the gear ring, an angularly disposed tool support carried by the sleeve, the said tool support having a channel, a tool having a rib adapted to engage the walls of

said channel, means for moving the tool 10 longitudinally of the sleeve, and means for operating the gear ring.

In testimony whereof, I affix my signature in the presence of two witnesses.

EMANUEL W. LOUDER.

Witnesses:

A. J. OAKS,
JAMES GREGORY.