Oct. 21, 1941. C. P. BOHLANDER 2,259,922

FLYWHEEL ROTATING TOOL

Filed March 26, 1940 2 Sheets-Sheet 1

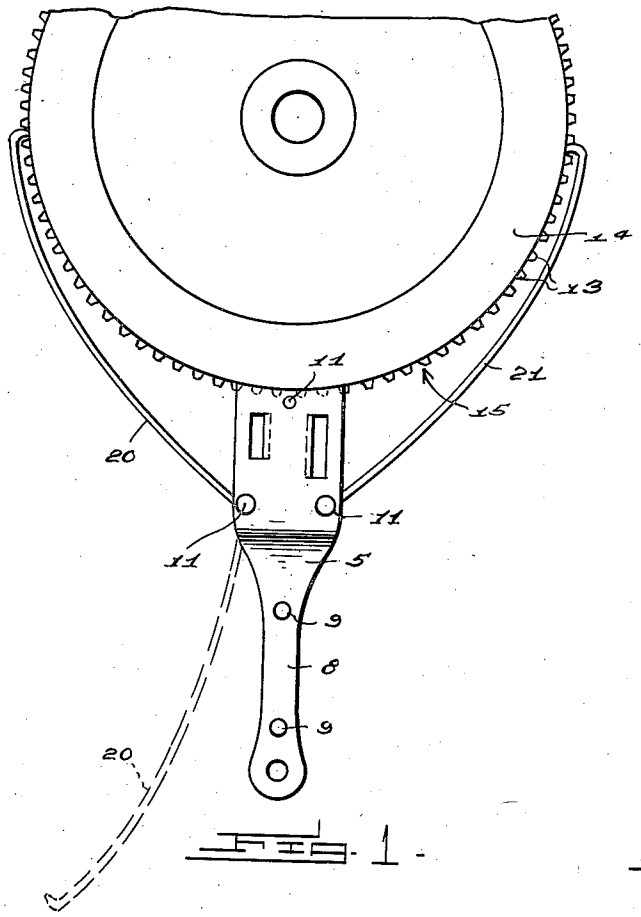


Fig. 1.

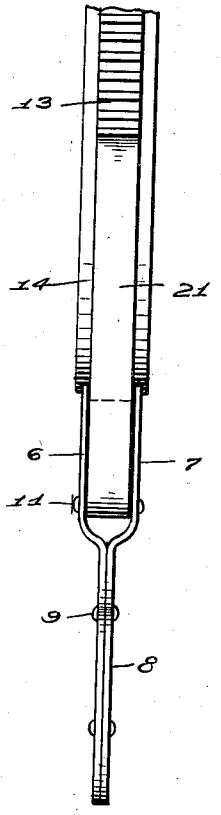


Fig. 2.

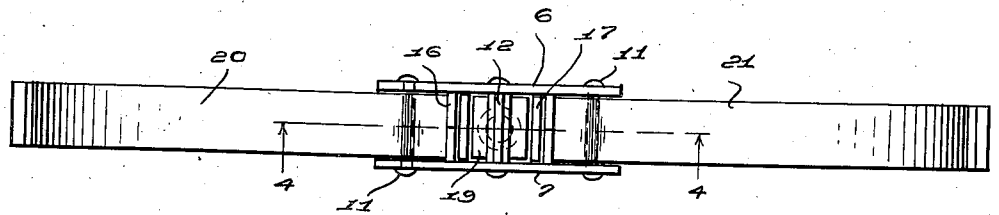


Fig. 3.

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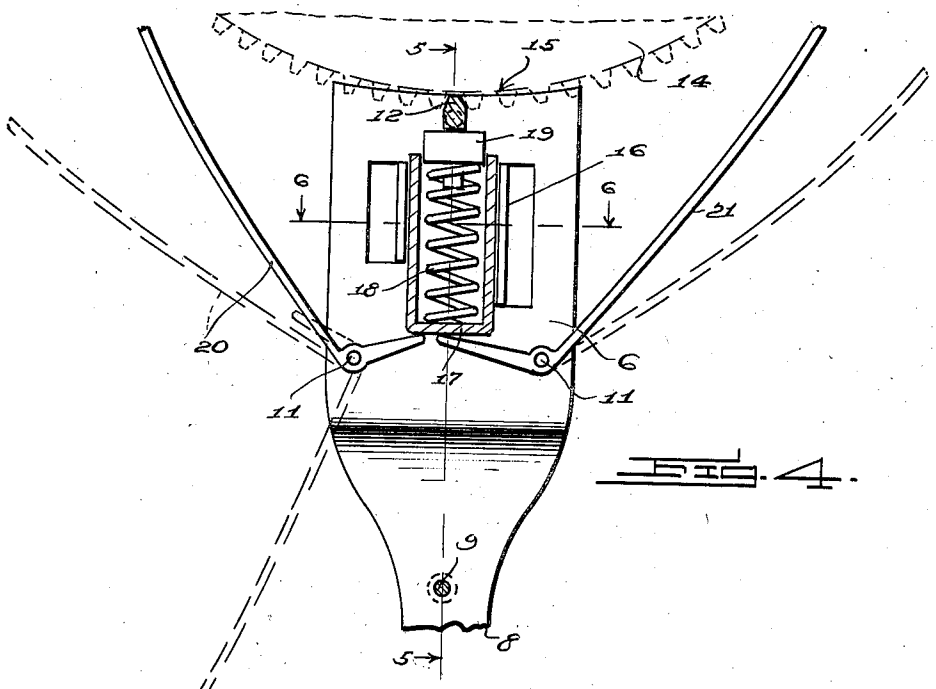


Fig. 4.

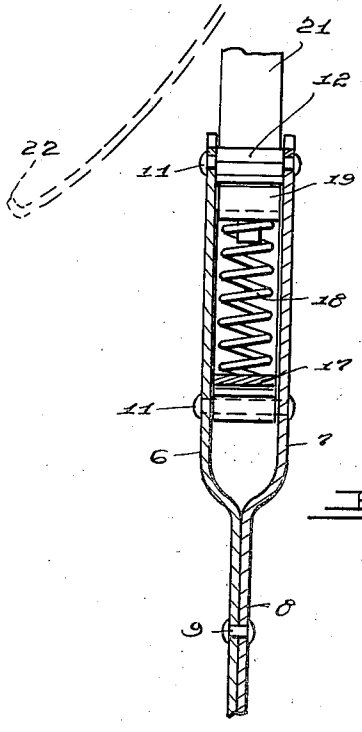


Fig. 5.

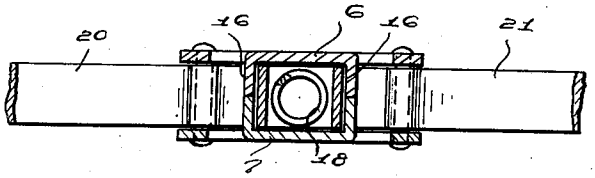


Fig. 6.

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FLYWHEEL ROTATING TOOL

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Application March 26, 1940, Serial No. 326,070

4 Claims. (Cl. 81—90)

The present invention relates to tools for rotating the fly-wheels of internal combustion engines while the engine is being inspected or repaired.

An important object of the present invention is to provide a tool of this character embodying a manipulating handle having a pair of jaws pivotally attached thereto and having free ends engageable with the teeth of the ring gear of the fly-wheel to enable the rotation of the fly-wheel in either direction.

A further object of the invention is to provide a tool of this character in which either of the jaws may be selectively used for engaging and rotating the fly-wheel in one direction.

A still further object is to provide a tool of this character of simple and practical construction, which is strong and durable, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a fragmentary front elevational view of a fly-wheel showing the tool in position for engaging the fly-wheel.

Figure 2 is an edge elevational view thereof.

Figure 3 is a top plan view of the tool.

Figure 4 is a fragmentary sectional view taken substantially on a line 4—4 of Figure 3.

Figure 5 is a vertical sectional view through the handle of the tool taken substantially on a line 5—5 of Figure 4, and

Figure 6 is a transverse sectional view through the handle taken substantially on a line 6—6 of Figure 4.

Referring now to the drawings in detail, the numeral 5 designates the handle portion of the tool which is constructed of a pair of duplicate plates 6 and 7, the handle including a hand-grip portion 8 in which the sections 6 and 7 are secured flatwise to each other by means of rivets or the like 9, the other ends of the handle portions 6 and 7 being spaced substantially in parallelism and secured in spaced relation by means of rivets 11.

One of the rivets 11 is positioned adjacent the outer end of the handle and is provided with a substantially wedge-shaped spacing member 12 adapted for engagement between the teeth of the ring gear 13 formed on the fly-wheel 14, as more clearly shown in Figure 4 of the drawings.

The adjacent edge portion of the handle members 6 and 7 are of arcuate form as shown at 15 and adapted to bear against the edge surface of the fly-wheel at opposite sides of the ring gear 13.

Portions of the handle members 6 and 7 are struck inwardly as shown at 16 to provide inwardly projecting lugs having their inner edges in abutting relation and cooperating to form guides for a U-shaped spring retaining member 17 having a coil spring 18 positioned therein, the upper end of the coil spring bearing against a block 19 which abuts the wedge-shaped spacing member 12, the other end of the spring engaging the bight portion of the spring retainer for urging the same downwardly.

Jaws 20 and 21 are pivotally mounted on a pair of the rivets 11, the jaws being of substantially bell-crank form and having one end engaged under the lower end of the spring retainer 17, the other ends of the jaws being of slightly arcuate form and provided with inwardly projecting extremities 22 for engaging between the teeth of the fly-wheel.

As more clearly illustrated in Figure 4 of the drawings, the inner end portion of the jaw 20 is shorter than the inner end of the jaw 21, whereby to permit said jaw 20 to be swung outwardly into the lowermost dotted line position as shown in Figure 4, for disengagement from the spring guide 17 and thus enable the rotation of the fly-wheel 14 through the use of only the jaw 21.

When both of the jaws are moved into fly-wheel engaging position, as shown by the full lines in Figure 1 of the drawings, the fly-wheel may be moved in a back and forth motion to facilitate proper adjustment of the engine.

It is believed the details of construction, manner of operation and advantages of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention, what I claim is:

1. A tool for rotating a toothed fly-wheel comprising a handle including spaced parallel sides at its outer portion, fixed means at the outer portion of the handle for engaging the teeth of the fly-wheel, a pair of jaws pivoted intermediate their ends between said parallel sides of the handle and projecting outwardly from opposite sides of the handle, the outer ends of the jaws being adapted for gripping engagement with the fly-wheel, spaced guide members be-

tween the parallel sides of the handle and spacing said sides apart, a spring retainer slidably positioned between said guide members and bearing against the inner ends of said jaws and a spring acting on the retainer to urge the jaws into gripping position.

2. A tool for rotating a toothed fly-wheel comprising a handle, a pair of substantially L-shaped jaws pivoted to the handle intermediate the ends of the jaws and projecting from opposite sides of the handle, the outer ends of the jaws being adapted for gripping engagement with the toothed edge of the fly-wheel, fixed means on the handle for engaging the fly-wheel teeth to cooperate with the jaw and spring means slidably carried by the handle, the inner ends of said jaws projecting inwardly under one end of the spring means at opposite directions and responsive to action by the spring means for closing the outer ends of the jaws against the fly-wheel, one of said inner ends of the jaws being movable independently of the other jaw out of the path of the spring means upon a predetermined retracting movement of said spring means.

3. A tool for rotating a toothed fly-wheel comprising a handle, a fixed means on the handle for engaging the teeth of the fly-wheel, independent members pivoted on the handle and projecting from opposite sides of the handle with one end of each of said members adapted for movement into and out of fly-wheel gripping engagement and spring means abutting said fixed means and engaging the other ends of said members to urge the latter into engagement with the fly-wheel.

4. A tool for rotating a toothed fly-wheel comprising a handle, fixed means on the handle for engaging the teeth of the fly-wheel, a pair of substantially L-shaped jaws pivoted on the handle and projecting from opposite sides thereof with one end of each of said jaws adapted for movement into and out of fly-wheel gripping engagement and spring means abutting said fixed means and engaging the other ends of said jaws to urge the latter into engagement with the fly-wheel.

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