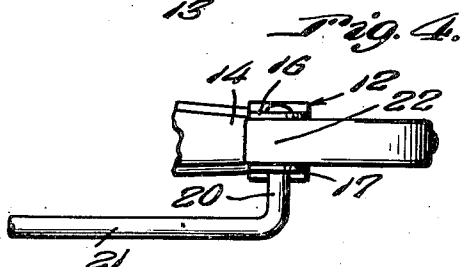
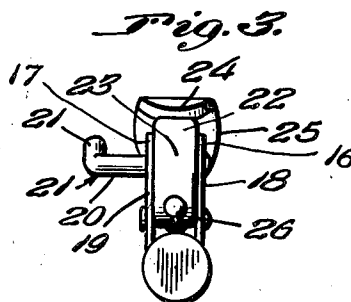
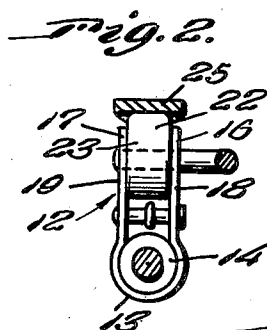
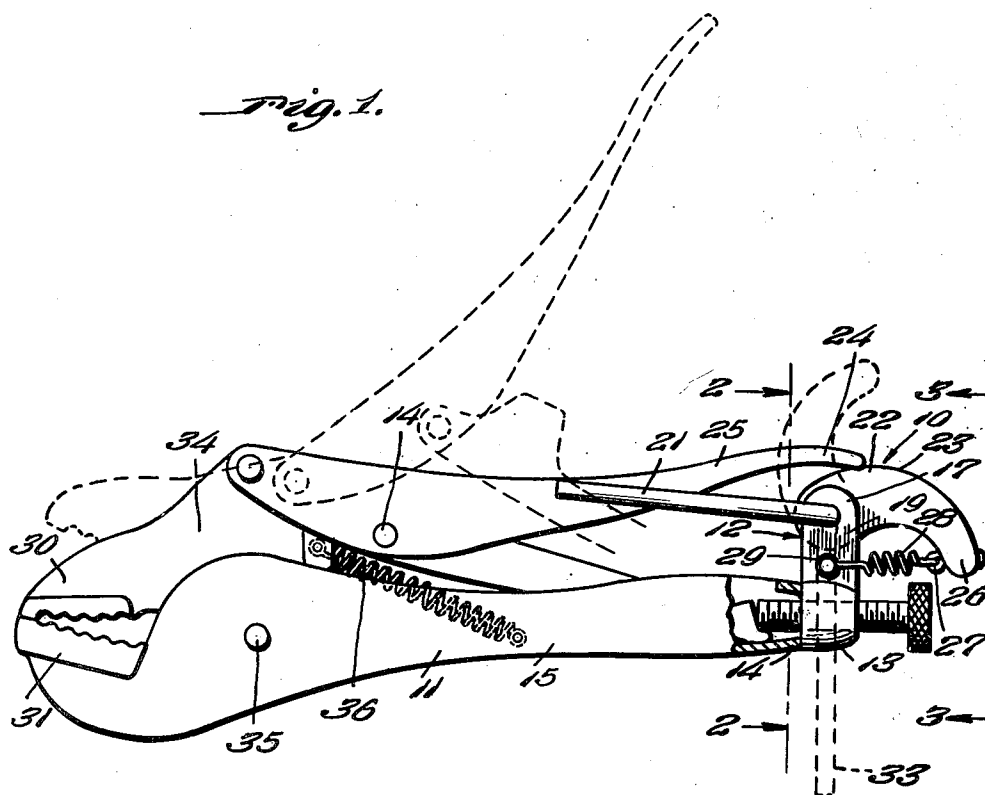


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R. L. PARKER
QUICK OPENING PLIERS

2,500,261

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QUICK OPENING PLIERS

Richard L. Parker, Knoxville, Tenn.

Application January 28, 1946, Serial No. 643,865

1 Claim. (Cl. 81—84)

1

One particular object of the herein described invention is the provision of means on a pair of pliers or the like whereby the same may be opened in an instant.

Another object of the invention is to provide in a pair of pliers a cam whereby the handles thereof may be quickly spread apart.

A further object of this invention is to provide in a pair of pliers a lever actuated cam for forcing the jaws apart.

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

Figure 1 is a side elevational view of a pair of pliers embracing my invention,

Figure 2 is a sectional view on line 2—2 of Figure 1,

Figure 3 is an end view of Figure 1 looking from line 3—3, and

Figure 4 is a top plan view of a broken away rear end of the pliers.

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 the invention and 11 in this instance indicates a pair of wire pliers of a well known form. These pliers as a rule have a cam or toggle action grip which must be released with the use of both hands to pry the handles apart which requires considerable work and time releasing the article gripped by the plier jaws.

In order to overcome the above difficulty the herein described addition to the pliers has been designed and consists of a substantially U-shaped bearing member 12, the lower end 13 of which is fixedly attached to an outer end 14 of a handle member 15 of said pliers. Between the upper ends 16 and 17 of arms 18 and 19 of member 12 is pivotally mounted a right-angular end 20 of a lever 21 upon which end 20 is fixed a cam 22 provided with an arcuate upper cam surface 23 which is in the path of a terminal end 24 of a lever handle 25 of the pliers.

To an under terminal 26 of the cam 22 is connected one end 27 of a coil spring 28, the other end 29 of which is fixed to the arms 18, 19 of the bearing 12, whereby the cam is drawn down in position against the action of lever 21. In closing the jaws 30 and 31 of the pliers, the terminal 24 of handle 25 bears upon the cam surface of the cam 22, and forces the cam outwardly and down as indicated in Figure 1 of the drawings, which action brings the lever 21, from its vertical position 33 (shown dotted), to its horizontal position directly under the thumb of the holder of the pliers. When it is desired to open the pliers to release its work all that the user has to do is to press down upon lever 21 with his thumb, which action raises the cam 22 and which in turn forces up handle 25 to spread the jaws

2

30 and 31. A jaw member 34 is pivoted at 35 and connected to its heel above said pivot is one end of a spring 36, the other end of which is secured to a shank 37 of the handle 15, whereby when handle 25 is raised the spring 36 will pull said heel down to raise jaw 30.

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 the invention that which is claimed to be new and desired to be procured by Letters Patent is:

In a pair of pliers, the combination of a pair of jaw actuating handles movable toward and away from each other to respectively close and open jaws actuated thereby, a substantially U-shaped bracket having one of said handles positioned in its bight portion and affording a pair of spaced arms which extend toward the remaining handle, a transverse pin extending through intermediate portions of said arms and clamping said bracket to the associated handle, a transverse shaft rotatably journaled in free end portions of said arms, an angulated extension provided at one end of said shaft and constituting an actuating lever, a segment-shaped cam secured to said shaft between said arms and operatively engageable upon rotation of said lever with said remaining handle whereby said handles may be spread apart, and a tension spring having one end thereof anchored on said pin and connected at its remaining end to said cam for returning the latter and said lever to their initial positions.

RICHARD L. PARKER.

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