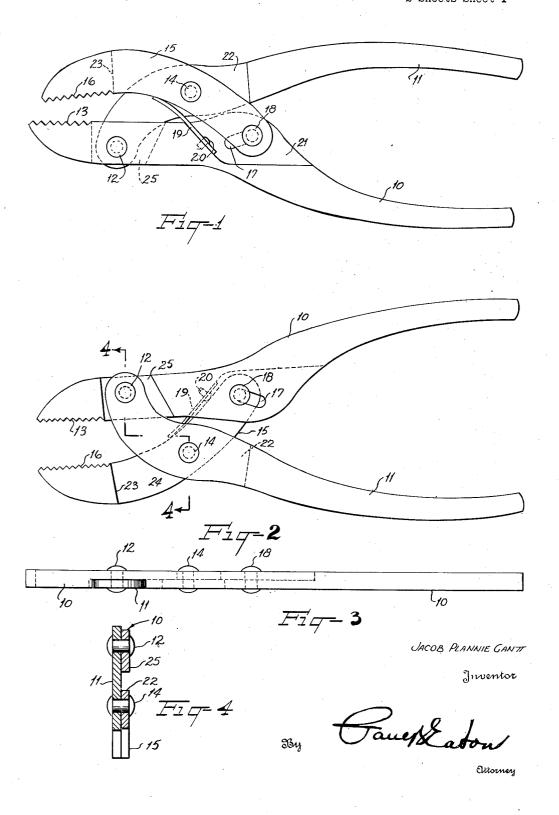
## July 20, 1948.

#### J. P. GANTT PIVOTED JAW PLIER, WRENCH WITH SLOTTED FULCRUM GUIDE

2,445,480

Filed Nov. 2, 1944

2 Sheets-Sheet 1



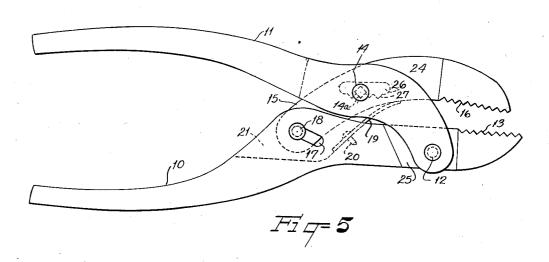
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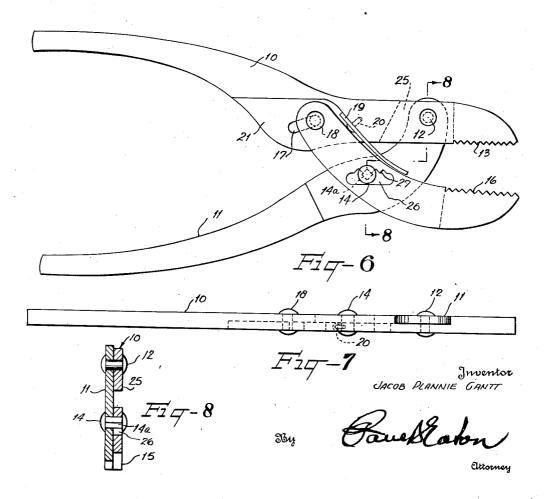
J. P. GANTT PIVOTED JAW PLIER WRENCH WITH SLOTTED FULCRUM GUIDE

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# UNITED STATES PATENT OFFICE

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#### PIVOTED JAW PLIER WRENCH WITH SLOTTED FULCRUM GUIDE

Jacob Plannie Gantt, Rock Hill, S. C. Application November 2, 1944, Serial No. 561,520

1 Claim. (Cl. 81—78)

1 ..... This invention relates to a set of pliers or a wrench being especially adapted for use for loosening the nuts on the threaded bolts in battery cable terminals where they clamp onto the terminal posts of storage batteries. Such nuts on the bolts on the clamps of the battery cables usually become corroded and are very hard to loosen, and it is an object of this invention to provide a set of pliers which can exert a gripping and crawling action on these nuts to firmly grip 10 the same and loosen the same where an ordinary wrench would ordinarily slide off the nut or disfigure it to the point where a wrench cannot engage it properly.

It is an object of this invention to provide a 15 wrench or set of pliers wherein the jaws are adapted to slide relative to each other as they are moved toward closed position to thus firmly grip a nut and turn the same relative to the bolt on which it is situated.

Another object of this invention is to provide a wrench or set of pliers in which the size of bolts or nuts to be gripped can be most effectively handled by a quick adjustment of the position the jaws will occupy apart from each other with the handles in a given position.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds and when taken in connection

with the accompanying drawings, in which—
Figure 1 is a side elevation of the wrench or pliers showing the same in closed position;

Figure 2 is a side elevation of the other side of the wrench or pliers showing the same inverted and in open position:

Figure 3 is a bottom plan view of Figure 1; Figure 4 is a vertical sectional view taken along a line 4—4 in Figure 2;

Figure 5 is a side elevation of a modified form of the invention showing the same in closed posi-

Figure 6 is a side elevation of the reverse side of Figure 5 showing the same inverted and in open position;

Figure 7 is a bottom plan view of Figure 5; Figure 8 is a vertical sectional view taken along a line 8-8 in Figure 6.

Referring more specifically to the drawings. Figures 1 to 4 inclusive show a type of pliers or wrench having handles 10 and 11, the handle 11 50 being pivoted as at 12 to the handle 10 immediately back of the serrated or jaw portion 13. The handle II has pivotally secured thereon as at 14, a jaw member 15 having serrations 16 for

portion of handle 10. The handle 10 has an elongated slot 17 therein in which a pin 18 is slidably mounted, pin 18 also penetrating and being secured in the rear end of jaw member 15.

If desired for holding jaw member 15 in normally open position, a leaf spring member 19 can be provided and suitably fixed to the handle member 10 as at 20. The handle member 10 in that portion where the slot 17 occurs, is cut away as at 21 and the handle portion 11 is cut away as 22 all the way to the pivot point 12 to provide lesser thickness to the same. Also the jaw member 15 is cut away from line 23 all the way to the pivot pin 18 to provide a thinner portion 24 for cooperation with the thinner portion 22 on handle member 11. The handle 10 is cut away around pivot 12 to provide a thin portion.

In Figures 5 to 8, inclusive, like reference characters will apply to like parts except that the pin 14 is squared as at 14a and is adapted to have movement in a slot 26 provided in the jaw member 15 and one edge of this slot 26 has notches or serrations 27 in which the squared portion 14a of pin 14 is adapted to have movement and the 25 spring 19 holds the jaw member 15 in such position that when the squared portion 14a of pin 14 is adjusted in a particular notch 27 that the parts will be held in this adjusted position to thereby adjust two jaws of the wrench apart from each 30 other to the desired amount for a particular size of nut to be operated upon by the wrench or pliers.

It is thus seen that I have provided a wrench or set of pliers which exerts a crawling action on a bolt, that is, as will be observed in Figures 2 and 35 6 where the jaws are in open position, the tip ends are approximately even with each other, whereas, as they move toward closed position, the jaw member 15 moves rearwardly or to the right in Figure 1, relative to the handle 10 and thus there is a crawling or gripping or twisting action applied to the bolt as the handles 10 and 11 are brought toward each other. This has a tendency to firmly embed the serrations in the nut and 45 prevent slipping of the jaws relative to the nut, thus giving a very firm grip on the nut and thus providing a wrench or set of pliers which will turn nuts which are corroded onto battery terminal bolts where an ordinary end wrench or an ordinary set of pliers would not do the job.

In the drawings and specification, there has been set forth a preferred embodiment of the invention, and although specific terms are employed, they are used in a generic and descriptive cooperating with the serrations 13 on the jaw 55 sense only and not for purposes of limitation,

the scope of the invention being defined in the claim.

I claim:

A wrench comprising a handle member having a jaw on one end thereof, a jaw member having 5 a jaw on one end thereof cooperating with the jaw on the handle member, the other end of the jaw member being pivoted on an intermediate portion of the handle member, a second handle member having one end pivotally secured to the 10 first handle member at a point between the jaw on the first handle member and the point where the jaw member is pivoted on the first handle member and extending past an intermediate portion of the jaw member, a pivotal connection 15 between an intermediate portion of the jaw member and an intermediate portion of the second handle member, the pivotal connection between the jaw member and the first handle member being a slot and sliding pin connection, and the  $\,_{20}$ pivotal connection between the jaw member and the second handle member being a slot in the jaw member having one of its sidewalls serrated

and a pin mounted in the second handle member and extending through the slot having the serrated sidewall, the serrated sidewall of the slot in the jaw member being engageable by the pin when the second handle member is moved towards the first handle member.

JACOB PLANNIE GANTT.

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