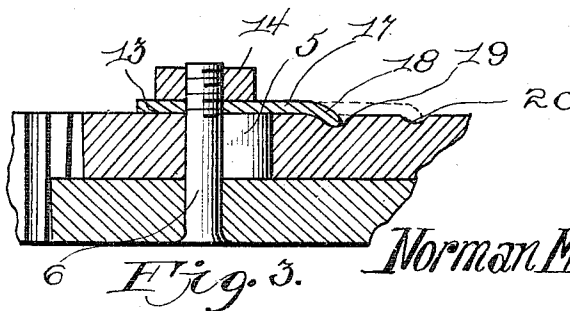
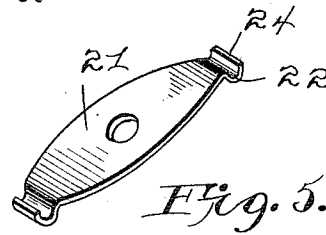
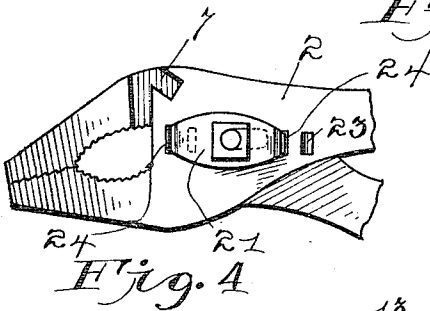
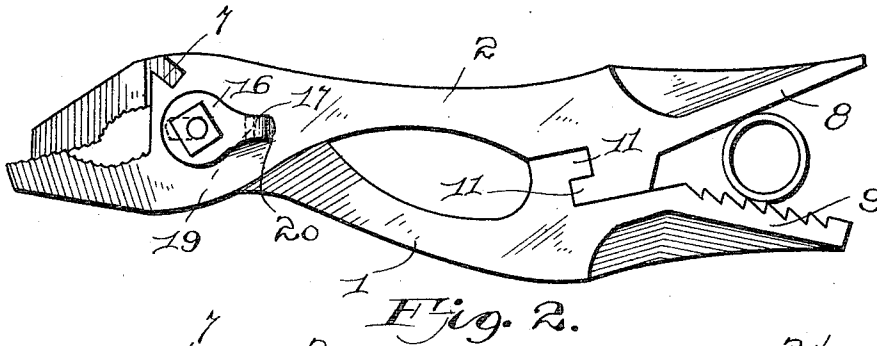
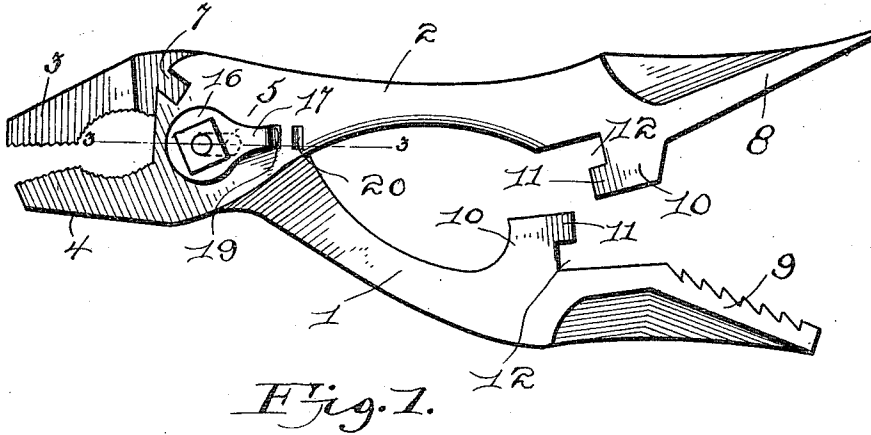


N. McASLAN.
COMBINATION TOOL.
APPLICATION FILED JULY 9, 1909.

964,532.

Patented July 19, 1910.



Witnesses
J. W. Lee

Dr. L. W. Cathman,

By

E. C. Vrooman,
his Attorney

Inventor
Norman McAslan.

UNITED STATES PATENT OFFICE.

NORMAN McASLAN, OF YORKSHIRE, IOWA.

COMBINATION-TOOL.

964,532.

Specification of Letters Patent.

Patented July 19, 1910.

Application filed July 9, 1909. Serial No. 506,891.

To all whom it may concern:

Be it known that I, NORMAN McASLAN, a citizen of the United States, residing at Yorkshire, in the county of Harrison and State of Iowa, have invented certain new and useful Improvements in Combined Tools, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in combined tools, and has for its object the provision of means for facilitating the adjustment of the tool, and means for holding the same in an adjusted position.

Another object of this invention is the production of a combined tool of the plier type, which is efficient and useful for a variety of purposes, and which is comparatively simple and inexpensive to construct.

With these and other objects in view, this invention consists of certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described and claimed.

In the drawings: Figure 1 is a plan view of the tool, showing the alligator-jaws in an open or extended position; Fig. 2 is a plan view of the tool, showing the alligator-jaws in a locked position; Fig. 3 is a longitudinal section of the tool taken on line 3—3 of Fig. 1; Fig. 4 is a plan view of the tool, showing a modification of the locking clip applied thereto; Fig. 5 is a detail perspective of said modification, depicted in Fig. 4.

Referring to the drawings by numerals, 1 designates the primary handle and 2 the auxiliary handle of the tool. Upon one end of the handles 1 and 2 there are formed integral plier-jaws 3 and 4 respectively. The jaw 4 is provided with a horizontal or longitudinally-extending slot 5, and the jaw 3 is provided with a headed pin 6, extending through the slot 5 and slidably connecting the plier-jaws together. Each jaw 4 is provided with a wire cutter notch 7. The other ends of the primary and auxiliary handles are provided with integral pipe-gripping jaws 8 and 9 respectively.

The jaws 8 and 9 are provided with inwardly-extending lugs or portions 10, which are provided upon one side with laterally-extending portions 11, which portions are adapted to interlock and hold the alligator-jaws in a fixed position, as clearly shown in Fig. 2 of the drawing. By having the inwardly-extending lugs 10 provided with lat-

erally-extending portions 11, it will be noted that recesses 12 will be formed upon one side of each of said inwardly-extending lugs 10, which recesses will receive the laterally-extending portion of the adjacent jaw thereby firmly holding the same together.

A securing clip 13 is secured to the pivoted pin 6, and firmly held thereon by means of a nut 14. The securing clip comprises an enlarged body portion 16, which terminates, near one side, in a narrowed laterally-extending portion 17, which portion is provided with an outer depending end 18. Upon the upper surface of the auxiliary jaw 2 are formed notches 19 and 20, which notches are adapted to be engaged by the depending portion 18 of the securing clip for holding the jaws in a set position.

When it is desired to use the alligator-jaws 8 and 9 the depending portion 18 of the securing clip is brought into engagement with the outer notch 20, by sliding the auxiliary jaw upon the primary jaw, thereby causing the laterally-extending portions 11 formed upon the lug-portions 10 to interlock. When the handles are shifted to this position the alligator-jaws can be freely used for the reason that the handles will be firmly locked in an adjusted position by means of the spring clip or securing member 13.

When it is desired to use the plier jaws, and have the handles pivotally secured together the auxiliary handle is drawn backward, so as to disengage the interlocking lugs 10, thereby causing the depending portion 18 of the securing clip to come in engagement with the inner notch 19 upon the upper surface of the auxiliary handle thereby allowing the free pivotal movement of said handle. It will, therefore, be obvious that by having the securing clip as hereinbefore described the auxiliary jaw can be readily and easily shifted upon the primary jaw, thereby allowing the tool to either be used as a pipe wrench or pliers, for the reason that the pivot pin 6 will readily work within the longitudinally-extending slot 5 of the auxiliary jaw and the depending end will engage one of the notches 19 or 20 and lock the jaws in an adjusted position. It will also be obvious that when the depending portion 18 engages the notch 19 the interlocking lugs 11 will be held out of contact with each other when the handles are being actuated and when the tool is being used as pliers.

In Fig. 4 I have shown a modification of the spring clip, which comprises a body portion 21, which terminates at each end into a depending bulged portion 22, which
5 bulged portion is adapted to engage notches 23 formed upon the upper surface of the auxiliary jaw 2. When using a spring clip, as depicted in the embodiment shown in Figs. 4 and 5, it is desirous of using a plu-
10 rality of notches upon each side of the pivot pin as shown in Fig. 4, thereby allowing the clip to grip the jaw or notches upon each side of the pivot pin for more firmly holding the same in a set position. By having the
15 outer ends of the securing clip 21 bulged downwardly and having the outer ends 24 extending upwardly the bulged ends 22 will more easily ride over the notches and the jaws can thereby be easily and quickly shift-
20 ed from one position to the other.

From the foregoing description, it will be readily seen that I have produced an efficient securing clip for combined tools where-
by the same will be firmly locked in an ad-

justed position for allowing the same to be 25
used as a pipe wrench or merely as a pair of pliers.

What I claim is:

A tool of the plier type comprising han-
dles having gripping jaws at one end and 30
inclined jaws at the other end, a lug ad-
jacent each inclined jaw adapted for inter-
locking engagement to retain said inclined
jaws in alligator shape, a pintle carried by
one of said handles, the other handle hav- 35
ing a slot permitting a slidable engagement
on said pintle and having notches formed in
its outer surface, and a clip carried on said
pintle and adapted to engage said notches
to hold said lugs in or out of interlocking 40
engagement.

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

NORMAN McASLAN.

Witnesses:

GRANT CAVE,
ROBERT IVENS.