



# UNITED STATES PATENT OFFICE.

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## COMBINATION WRENCH-TOOL.

SPECIFICATION forming part of Letters Patent No. 460,438, dated September 29, 1891.

Application filed June 9, 1891. Serial No. 395,623. (No model.)

*To all whom it may concern:*

Be it known that I, AARON C. HAUNTY, of Pott's Grove, in the county of Northumberland and State of Pennsylvania, have invented a new and useful Improvement in Combination Wrench-Tools, of which the following is a full, clear, and exact description.

This invention consists in a combination-tool of novel construction and which embraces an alligator burr-wrench, a pipe-wrench, a hammer, a tack-puller, and a screw-driver, or certain of these, together with special means of adjustment applied to the wrench portion of the tool, which wrench part is a prominent feature of the implement, it being essentially a wrench with other useful features combined, substantially as hereinafter described, and more particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a longitudinal side view of the tool complete; Fig. 2, a plan or longitudinal view in a plane at right angles to Fig. 1; Fig. 3, a sectional view of the hammer and pipe-wrench portion of the tool in part; and Fig. 4, a sectional view upon the line 4 4 in Fig. 3.

A B indicate two crossing levers pivoted together, as at *b*. These levers form the handles *c c* and jaw portions of the wrench and have integral with them other parts of the tool. Thus the lever A virtually forms a burr or nut wrench of what is known as the "alligator" description, it being constructed at its forward end with a fixed double jaw or mouth, the two opposing interior faces or jaws *e e* of which are serrated or toothed and taper backwardly toward each other, so as to enable the jaw-head *d* in which such toothed tapering mouth is formed to receive and firmly grip within it different-sized burrs or nuts. The jaw-head *d* of this lever A is also constructed on the reverse side of its inner jaw *e* to form a fixed concave-shaped and toothed single jaw *f* of a pipe-wrench.

The lever B is constructed at its forward end to form a hammer-head *g*, which will be found very convenient when using the tool as a hammer, which is almost a necessary ap-

pendage to a wrench. Said forward end of the lever B is also constructed to form the opposing concave-shaped and toothed jaws *f' f''* of the pipe-wrench, the forward portion *f'* of which is made to constitute an extension point or piece and is fitted to move longitudinally in and out within slideways in the hammer-head *g*, as shown in Figs. 3 and 4, a screw *h* fitting a threaded aperture in the extension-piece *f'* and operated by a milled head *i*, arranged within a through opening *k* in the fixed jaw portion and accessible from opposite sides, serving to provide for rotating the screw *h* by the thumb and finger to slide or adjust the extension-piece *f'* in or out, as required. This adjustment of the one pipe-wrench jaw or forward portion thereof adapts the pipe-wrench to different or irregular shaped pipes. The levers A and B are adjustable toward or from each other by a thumb-screw or screw *l* and thumb-nut *m* and spring *n* combined for increasing or diminishing the size or capacity of the wrench or pipe-wrench portion of the tool.

To further add to the utility of the tool, its one handle part *c* is constructed at its outer extremity to form a nail-puller *s* and its other handle part *c* to constitute a screw-driver blade or point *s'*. It will thus be seen that the tool combines in a simple and practicable manner many uses more or less connected with each other in general work, both indoor and outdoor, and whereby much time may be saved as compared with employing separate tools, besides saving room, expense, and admitting of being readily transferred from place to place or of being easily carried in the pocket.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a combination-tool, the crossed pivoted levers A B, a pipe-wrench jaw on the inner edge of the outer portion of lever B, a similar jaw *f* on the head *d* of lever A, and the alligator-wrench in the outer extremity of the head *d*, provided with serrated jaws *e e*, extending longitudinally of the head, the inner jaw *e* being formed by the outer edge of pipe-wrench jaw *f*, substantially as set forth.

2. A combination-tool comprising a lever

having a pipe-wrench jaw  $f$  and a crossing lever having an opposed fixed jaw-section  $f^2$ , an outward-projecting hammer-head  $g$  beyond said section, guideways across the inner end of the hammer-head, a movable jaw-section  $f'$  in said ways, and an adjusting-screw  $h$ , having an operating-head  $i$  in a recess back of the fixed section  $f^2$ , substantially as set forth.

3. The pipe-wrench portion of the tool, composed of a lever having at its forward end a fixed concave-shaped and toothed pipe-wrench jaw and of a crossing lever pivoted to the first one, constructed at its forward end with an opposing similar toothed jaw having an adjustable forward extension point or piece, substantially as specified.

4. A wrench comprising the crossed pivoted levers, one of which has a fixed serrated jaw  $f$  and the other a fixed jaw-section  $f^2$ , and a sliding section  $f'$ , movable toward and from

the section  $f^2$  and provided with the longitudinally-extending screw  $h$ , having an operating-head  $i$ , substantially as set forth.

5. A combination-tool consisting in the two crossed pivoted levers A B, a screw-driver  $s'$  and puller  $s$  at the inner extremities of levers B A, respectively, the alligator-jaws  $e e$  and the pipe-wrench jaw  $f$  at the forward extremity of lever A, the hammer  $g$  and fixed and movable pipe-wrench jaw-sections  $f^2 f'$  at the outer end of lever B, the screw  $h$  for operating the movable jaw-section, and the adjusting-screw  $l$ , connecting the two levers and provided with a thumb-nut  $m$ , substantially as set forth.

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Witnesses:

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