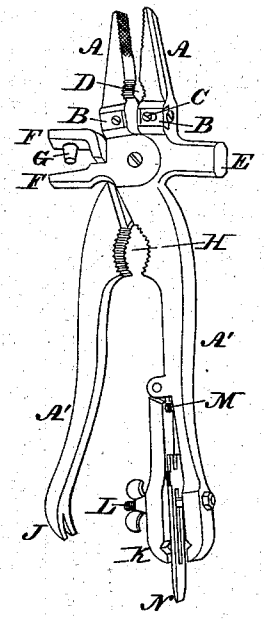
(No Model.)

R. ERDMAN & W. PHILLIPS.

COMBINATION TOOL.

No. 276,793. Patented May 1, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ROBERT ERDMAN AND WILLIAM PHILLIPS, OF PHILADELPHIA, PA.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 276,793, dated May 1, 1883.

Application filed March 17, 1883. (No model.)

To all whom it may concern:

Be it known that we, ROBERT ERDMAN and WILLIAM PHILLIPS, both citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Combination-Tools, which improvement is fully set forth in the following specification and accompanying drawings, in which the figure is a perspective view of the combination-tool embodying our invention, the same being constructed and operating substantially as hereinafter fully set forth.

Referring to the drawing, A A represent two jaws, which are pivoted together and formed with handles A′, constituting a pair of pinchers.

B represents blades, which are fitted in lugs on the sides of the jaws A A, constituting cutters for wire, &c., one or both of said blades being slotted, as shown, for the reception of the holding screw or bolts C, and admitting of the adjustment of the blades when first connected with the jaws and afterward worn. The inner side of each jaw A is recessed at coincident places, as at D, with serrated faces, forming gas-pliers. From one jaw A projects a hammer-head, E, and from each jaw, on the side opposite to the head E, project jaws F, one of said jaws having a tubular cutter, G, and the other jaw constituting the bed therefor, thus forming a punch for leather, &c. On the inner side of the handles A′ are recesses with serrated faces, forming gas-pliers H, it being noticed that the two pliers D H are of different sizes. The end of one handle has a claw, J, for extracting nails, tacks, &c., and the end of the other handle has a jaw, K, pivoted to it, so that said jaw and its connected handle, as the opposite jaw, form a vise, the bolt thereof being shown at L and the opening-spring at M.

N represents a screw-driver, which is adapted to be located between the jaws of the vise when not in use. For this purpose said screw-driver is longitudinally slotted to receive the bolt L of the vise. When the screw-driver is not required it is slipped back between the jaws of the vise and held by the bolt L. When the screw-driver is required the bolt is loosened and the driver drawn out to full extent, or nearly so, as shown in the drawing. The bolt is then tightened and the driver is in operative position. Again, the bolt may be loosened and the screw-driver moved back inwardly, whereby the jaws of the vise are free for service required of a vise, the bolt being provided with a thumb-nut, or screwing into the handle or jaw, as desired, for holding purposes.

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

1. In a combination-tool, the combination of the handles A′, pivoted together, and having recesses which form pliers H, the pincher-jaws A, having recesses which form pliers D, and provided on their sides with lugs, the wire-cutters B, fitted to said lugs, the projecting jaws F, the punch G, connected with one of said jaws, and the hammer-head, said pliers H D being of different sizes, substantially as and for the purpose set forth.

2. In a combination-tool, the combination of the handles A′ A′, pivoted together, one of said handles having a jaw, K, pivoted thereto, with the bolt L and thumb-nut, substantially as and for the purpose set forth.

3. In a combination-tool, the combination of the pivoted handles A′ with the pincher-jaws A, the jaws F, and punch G, and the jaw K, which is pivoted to one of said handles, the bolt L, and the thumb-screw, substantially as and for the purpose set forth.

4. In a combination-tool, the handle A′, jaw K, and an operating bolt or screw, forming a vise, in combination with a screw-driver fitted between said handle and jaw, and provided with a slot through which said bolt or screw is passed, substantially as and for the purpose set forth.

ROBT. ERDMAN.
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Witnesses:
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