(No Model.)

A. PATTERSON.

COMBINATION TOOL.

No. 361,446. Patented Apr. 19, 1887.

Fig. 1.

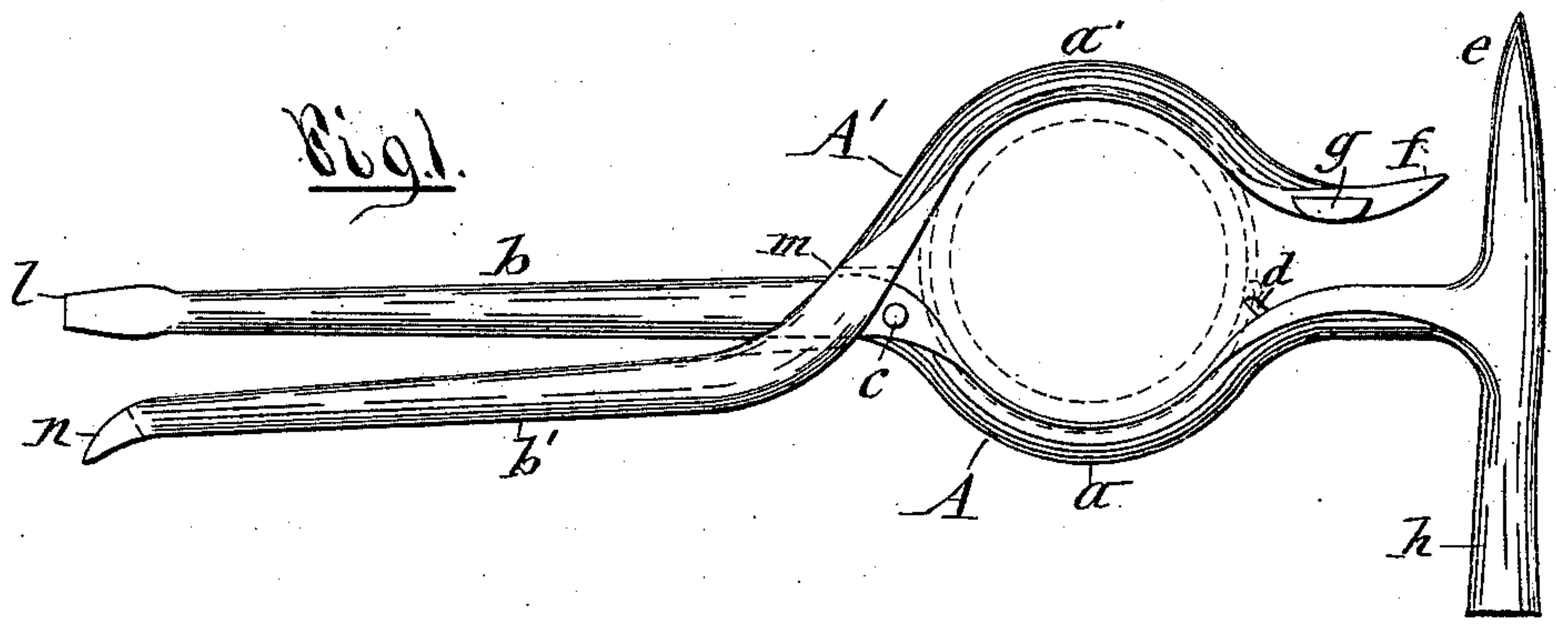


Fig. 3.

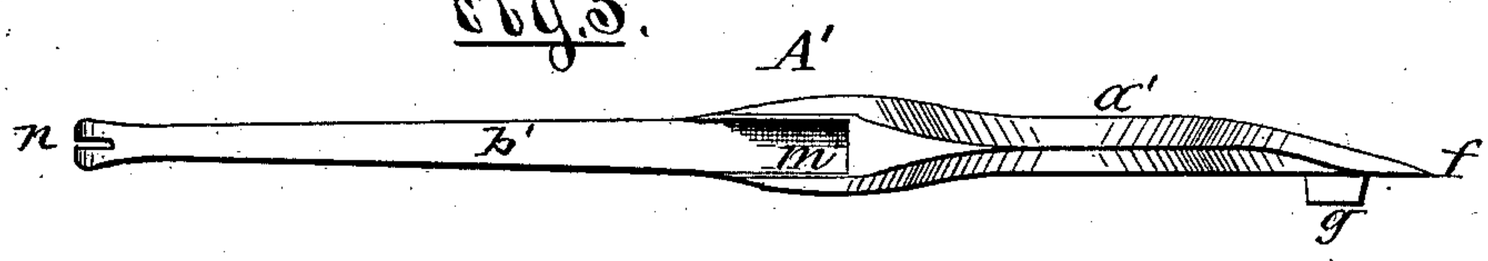
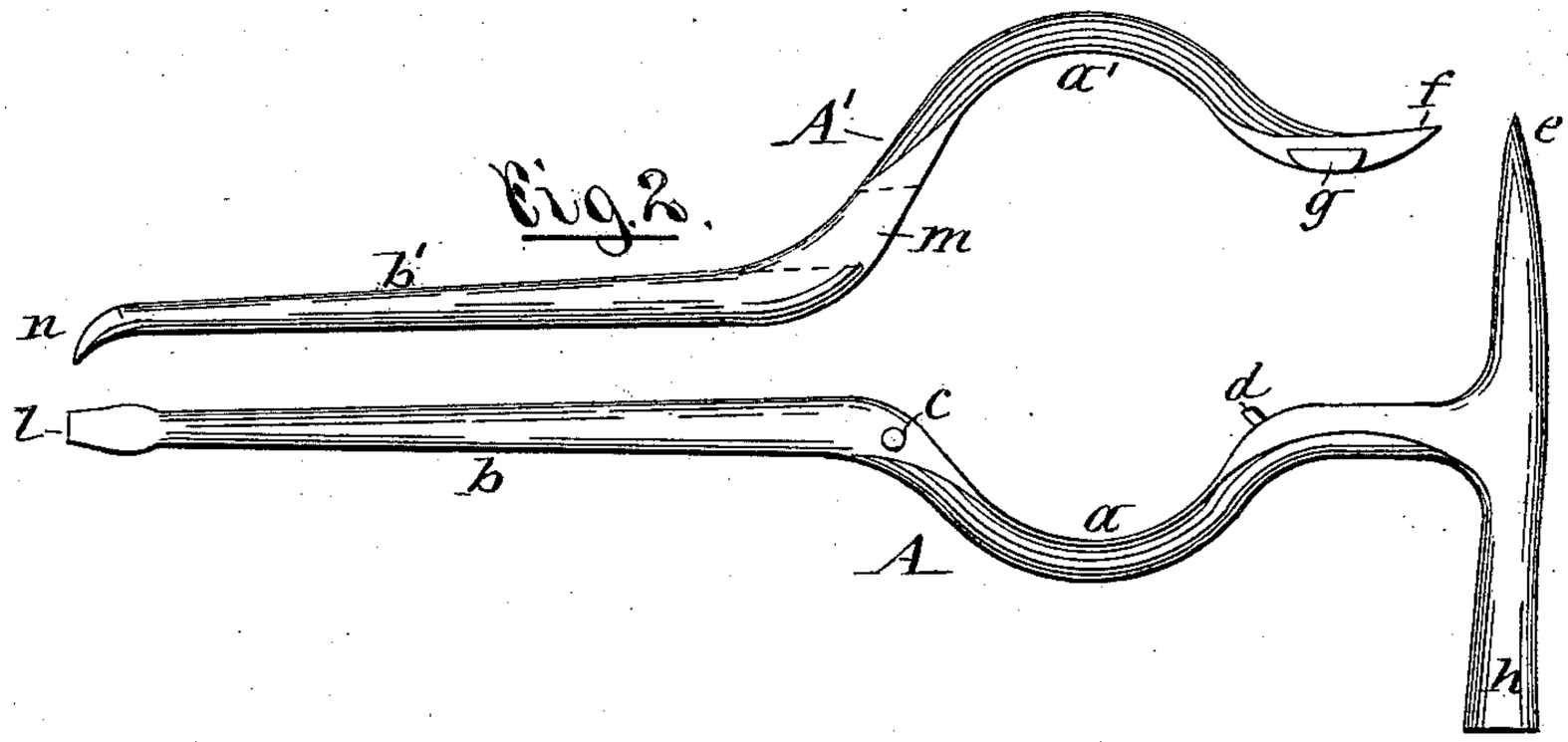


Fig. 2.



WITNESSES:

C. Bendixon

A. F. Walz

INVENTOR

Alexander Patterson

BY

Dewell, Laass & Dewell.

ATTORNEYS

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ALEXANDER PATTERSON, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF TO PENN & LEE, OF SAME PLACE.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 361,446, dated April 19, 1887.

Application filed January 29, 1887. Serial No. 225,845. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER PATTERSON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Combination-Tools, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists in a novel construction of two metal bars which can be used separately to serve the purposes of either an ice-pick or a tack-hammer, or a can-opening knife, or a screw-driver, or a tack-drawer, and are also adapted to be operated conjointly for tightening and for unscrewing screw-caps of cans.

The invention is fully illustrated in the annexed drawings, in which—

Figure 1 shows the component parts of the invention united to serve the purposes of either tightening or unscrewing screw-caps from cans. Fig. 2 shows the parts separated, and Fig. 3 is an edge view of that part which serves as a can-opener and a tack-drawer.

Similar letters of reference indicate corresponding parts.

The invention is composed of the two parts A and A′, consisting of two metallic bars, the part A being formed with a lateral deflection, *a*, which may be either of segmental form, as shown, to fit around one side of an annular screw-cap of a can, or it may be of angular shape, to conform to one side of a hexagonal or other polygonal-shaped screw cap or nut. When of segmental form, I provide it with a cam, *d*, to engage with either a notch or a projection on the screw-cap, as represented by dotted lines in Fig. 1 of the drawings. The part A, I further form with a shank, *b*, and with a lug, *c*, at the junction of the shank with the deflection *a*. The shank *b*, I terminate in the shape of a chisel-point, *l*, and the opposite end of the part A, I form with a hammer-head, *h*, and pick *e*. The part A′, I form with a similar deflection, *a′*, reverse from the deflection *a* of the part A, and also form said part A′ with a shank, *b′*, and with a mortise, *m*, at the junction of said shank with the deflection *a′*, said mortise being of a proper size to receive through it the shank *a* of the part A. By slipping the latter shank through the mortise *m* until the lug *c* is brought to bear on the part A′, the two parts A and A′ become hinged to each other without the aid of a rivet or pin passing through the said parts at their point of crossing, as in ordinary hinged or jointed analogous tools, the parts being disconnected from each other with equal facility. The end of the shank *b′*, I form chisel-pointed, and bifurcate it, as shown at *n* in Fig. 3 of the drawings, for the purpose hereinafter explained. The opposite end of the part A′, I form with a knife, *f*—such as are used for opening soldered can-covers—and with the shoulder *g*, similar to that formed on the side of ordinary can-openers of the class aforesaid.

By hinging the two parts A A′ together in the manner hereinbefore described I form a species of tongs adapted to grasp by the deflections *a a′* a screw-cap of a can. By compressing the two shanks *b b′* a firm hold is obtained on said screw-cap, and, by pressing the aforesaid shanks conjointly laterally in one direction while firmly holding the can from turning, the screw-cap can be either firmly screwed on the can or unscrewed from the same.

By separating the two parts A A′ from each other I am enabled to use the part A as a screw-driver, by inserting the chisel-point *l* in the usual slot in the head of the screw, the T-shaped opposite end of the part A, obtained by the laterally-projecting portions *h e*, forming a convenient handle for operating the screw-driver. By reversing the part A end for end I can bring into use either the hammer-head *h*, for driving tacks, or the pick *e*, for breaking up ice. The part A′ can be employed either as a tack-drawer, by means of its bifurcated chisel-point *n*, or as a can-opener by means of the knife *f* and shoulder *g* at the opposite end of the part A′.

I do not claim, broadly, a combination-tool comprising two limbs adapted to be hinged to each other and formed with a screw-driver, a tack-claw, and a hammer-head, as I am aware the same is not new; but

What I do claim as my invention is—

1. The combination of the part A, formed with the lateral deflection *a* and shank *b*, and the part A′, formed with the lateral deflection *a′* and shank *b′*, and one of said parts being pro-

vided with a mortise at the juncture of the deflection and shank, and the other part being provided with the lug *c*, as set forth.

2. The combination of the part A, formed with the lateral deflection *a*, shank *b*, cam *d*, and lug *c*, and the part A′, formed with the lateral deflection *a′*, shank *b′*, and mortise *m*, substantially as described and shown.

3. In a multiplex tool, the combination of the part A, formed with the lateral deflection *a*, shank *b*, lug *c*, and hammer-head *h*, and the part A′, formed with the deflection *a′*, shank *b′*, and mortise *m*, substantially as described and shown.

4. In a multiplex tool, the combination of the part A, formed with the deflection *a*, shank *b*, lug *c*, and pick *e*, and the part A′, formed with the deflection *a′*, shank *b′*, and mortise *m*, substantially as described and shown.

5. In a multiplex tool, the combination of the part A, formed with the deflection *a*, shank *b*, lug *c*, and chisel-point *l* on the end of the shank, and the part A′, formed with the deflection *a′*, shank *b′*, and mortise *m*, substantially as described and shown.

6. The combination of the part A, formed with the deflection *a*, shank *b*, lug *c*, hammer-head *h*, pick *e*, and chisel-point *l*, and the part A′, formed with the deflection *a′*, shank *b′*, and mortise *m*, substantially in the manner set forth and shown.

7. The combination of the part A, formed with the deflection *a*, shank *b*, and lug *c*, and the part A′, formed with the deflection *a′*, shank *b′*, mortise *m*, and knife *f*, as set forth and shown.

8. The combination of the part A, formed with the deflection *a*, shank *b*, and lug *c*, and the part A′, formed with the deflection *a′*, shank *b′*, mortise *m*, knife *f*, and shoulder *g*, substantially as described and shown.

9. The combination of the part A, formed with the deflection *a*, shank *b*, and lug *c*, and the part A′, formed with the deflection *a′*, shank *b′*, mortise *m*, and bifurcated chisel-point *n*, substantially as shown and set forth.

10. The within-described multiplex tool, composed of the part A, formed with the deflection *a*, shank *b*, chisel-point *l*, lug *c*, cam *d*, hammer-head *h*, and pick *e*, and the part A′, formed with the deflection *a′*, shank *b′*, bifurcated chisel-point *n*, mortise *m*, knife *f*, and shoulder *g*, substantially as described and shown, for the purpose set forth.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 15th day of January, 1887.

ALEXANDER PATTERSON. [L. S.]

Witnesses:
C. BENDIXON,
H. P. DENISON.