

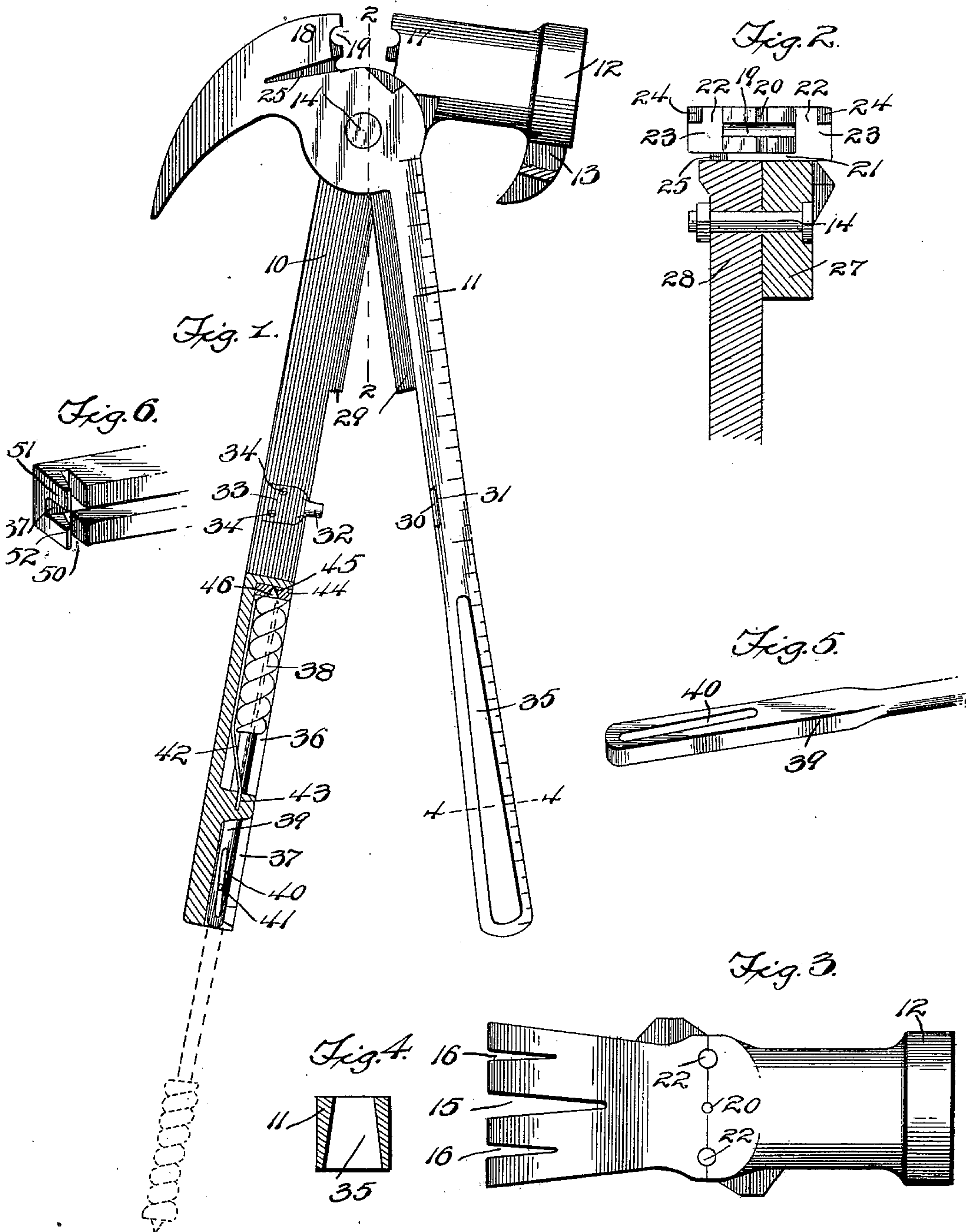
No. 635,307.

Patented Oct. 24, 1899.

T. H. EWING.
TOOL.

(Application filed May 31, 1899.)

(No Model.)



Witnesses

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

THOMAS H. EWING, OF ELRENO, OKLAHOMA TERRITORY.

TOOL.

SPECIFICATION forming part of Letters Patent No. 635,307, dated October 24, 1899.

Application filed May 31, 1899. Serial No. 718,854. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. EWING, a citizen of the United States, residing at Elreno, in the county of Canadian, Territory of Oklahoma, have invented a new and useful Combination-Tool, of which the following is a specification.

This invention relates to combination-tools; and it has for its object to provide in a single implement means and mechanism for a variety of purposes hereinafter specified.

The invention consists of two principal elements or members pivotally connected to form nippers or tongs the jaws of which are peculiarly formed for a variety of uses, one of said members carrying a hammer-head or nail-driving portion of a hammer-head, the other member carrying the claw portion. The first-named member is also provided with a supplemental claw. The handles of the members are constructed to form shears, a punch, an auger, and other useful tools, and the entire implement is so constructed as to form a compact and efficient tool.

In the drawings forming a portion of this specification, and in which like numerals of reference designate corresponding parts in the several views, Figure 1 is a side elevation of the tool, having one of the jaws of the supplemental claw in section. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a top plan view with the members closed. Fig. 4 is a section on line 4 4 of Fig. 1 looking downwardly. Fig. 5 is a detail perspective of the shank and the auger. Fig. 6 is a detail perspective of the extremity of one of the members.

Referring now to the drawings, the implement comprises a nail-driving element 10 and a claw element 11, of which the former has upon its outer end a nail-driving terminal 12, from which are disposed downwardly and inwardly claws 13, adapted for the drawing of tacks, small nails, &c. The members 10 and 11 are pivotally connected adjacent their upper ends, through the medium of a pivot 14, to form, when the members are in mutual engagement, a complete hammer, the member 11 having its outwardly and downwardly extending tapered portion provided with a tapering slot 15 and an additional smaller slot 16 at each side thereof, the central slot being adapt-

ed for the drawing of nails and the smaller slots for the drawing of smaller bodies.

The material of each member is extended above the pivot 14, resulting in the formation of two mutually-engaging jaws 17 and 18. In the face of each of said jaws is formed a transverse slot 19, which slot is substantially semicircular in cross-section, resulting in the formation of a transverse perforation when the engaging faces or jaws of the tool are in mutual contact. This slot is adapted to receive and hold wires while making a splice or for other purposes. Extending outwardly and at right angles to the slots 19 is formed a second slot 20 in each face, crossing the slots 19 and terminating at their lower ends in lower transverse slots 21, which latter extend entirely across the faces of the jaws. The slots 20 are substantially semicircular in cross-section and are adapted to receive and hold any small body, and through the medium of said slots a nail may be held with its head lying in the slot 21 and in this position may be manipulated as a drill.

At each side of the slot 20 is an additional slot 22, opening into a transverse recess 23 in each side face of each member, resulting in the formation of clips 24, forming staple-pullers, said clips or teeth being forced with a squeezing action beneath the arch of a staple. Extending from recess 23 and at one side of the member 11 is a tapered slot 25, the walls of which are beveled inwardly for the reception of the head of a nail and through the medium of which a nail may be held temporarily by the implement and may be forced into a body to start it, the head being then disengaged and being struck with the portion 12 of the element 10. Similarly the element 10 has a like slot 25 on the opposite side thereof opening into its recess 23 for a like purpose.

The pivot-pin 14 is passed through perforations formed in downwardly-extending lugs 27 and 28 upon the heads of the members, and from which lugs extend operating handles, as shown, the upper portions of said handles directly adjacent the lugs being provided with cutting edges 29, forming snips for the cutting of metal or other material. Below one of the cutting edges 29 and in the member 11

is seated a lead plate 30, held in place through the medium of its beveled edges, which engage and are held by the correspondingly-beveled edges of a transverse recess 31 in the member 11. This plate or pad is in direct alinement with a hollow punch 32, springing from a plate 33, connected directly with the handle of the member 10 by means of attaching-screws 34.

The lower end of the member 11 is provided with a slot 35, tapered from the lower end upwardly thereof, said slot being also tapered from one side to the other of the element, as shown in Fig. 4 of the drawings. This double taper of the slot 35 enables the application of the member 11 to any one of a number of angular bodies of various diameters for rotation thereof, it being especially designed as a wrench.

In the inner face of the lower end of the member 10 is formed an angular recess 36, the lower portion 37 of which is reduced in lateral diameter, and in the portion 36 is the web and cutting portion of an auger 38, the shank 39 of which extends into the reduced portion 37 of said recess and has a slot 40 disposed at an angle to the axis of the shank, and through which slot is passed a securing-pin 41, having its ends fixed in the side walls of the recess. The pin is adapted to play in the slot as the auger is reciprocated and forms a hinge-pin for the latter when it is rotated to the position shown in dotted lines in Fig. 1 of the drawings.

A flat spring 42, having one end seated in a slot 43 in the member 10, is engaged by the auger lying in the major portion of the recess 36, and this spring tends normally to throw the auger outwardly and toward the position shown in dotted lines. In order to hold the auger against this outward movement, I arrange at the upper end of the recess a metallic pad 44, of lead or other suitable material, having a perforation 45 therein adapted to receive the screw 46 of the auger. Thus when the screw is engaged with the plate or pad it is held against outward displacement by the spring 42. If, however, the auger be drawn outwardly and longitudinally of the member 10, the screw 46 will be disengaged from said pad, when the spring will force it outwardly, and it may be then rotated into an opposite position. After the auger has been moved into alinement with

the member 10 it is pushed rearwardly to cause the pin 41 to approach the cutting end of the auger, the angular arrangement of the slot 40 forcing the shank of the auger against the adjacent portion of the base of the reduced portion 37 of the recess in the member 10 and holding the auger against vertical displacement. When desired, the auger may be drawn outwardly and longitudinally, and then rotated into the position shown in full lines in Fig. 1, where it will remain until again drawn from engagement with its retaining plate or pad.

Transversely of the lower end of the element 10 is formed a slot 50, intersecting the reduced portion 37 of the recess in said member, the lower wall of said slot being beveled outwardly toward the face of the lower end of the element to form two screw-drivers 51 and 52, as shown.

It will be readily understood that the different features of my invention may be employed for whatever purpose to which they may be adapted and that in practice I may vary the specific construction and arrangement of the parts as I may desire without departing from the spirit of the invention.

Having thus described the invention, what is claimed is—

The combination with a handle having a longitudinal recess comprising a narrowed portion and a wider portion, of a soft-metal block arranged at one end of the wider portion of the recess, an auger having a slot disposed at an angle to the axis thereof, the slotted portion of the auger lying in the narrowed portion of the recess, a pin passed through the walls of the recess and the slot of the auger, and adapted to play in the slot of the auger, said auger having a reduced extremity adapted to enter a perforation in the yieldable block, to hold the auger against displacement, and a spring in the wider portion of the recess adapted for engagement by the auger, whereby the spring will throw the auger outwardly when disengaged from the block.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS H. EWING.

Witnesses:

E. T. MARSH,
FRANK CARTER.