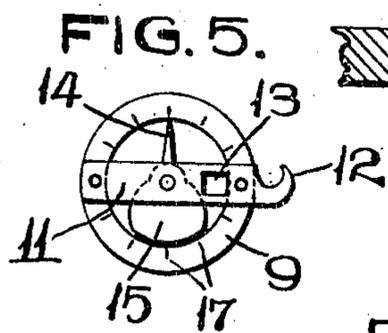
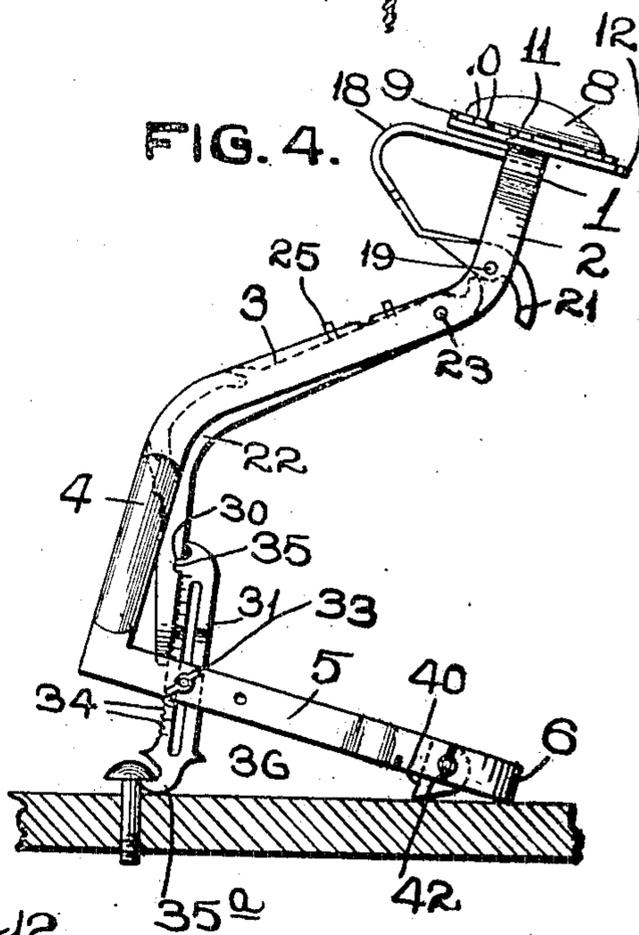
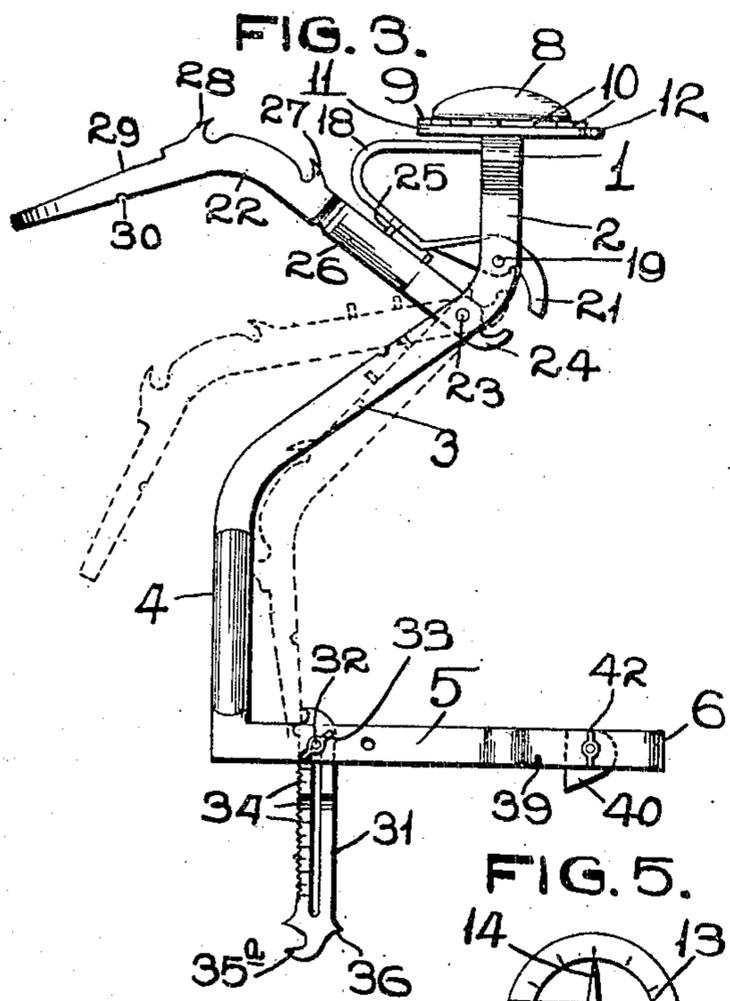
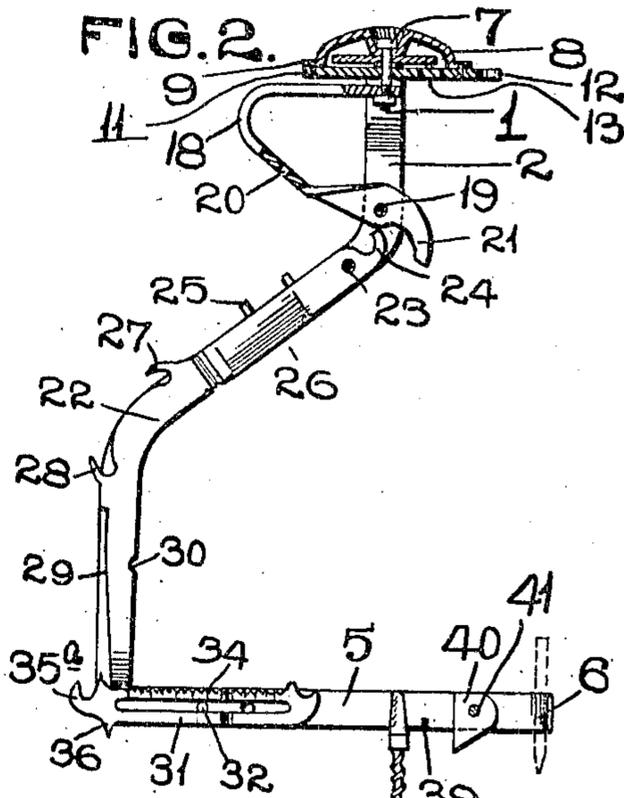
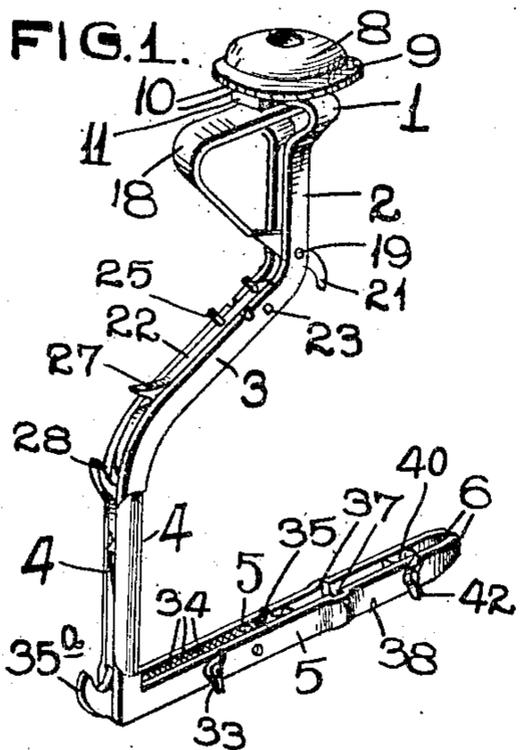


E. F. CHAPMAN.
COMBINATION TOOL.
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COMBINATION-TOOL.

No. 849,723.

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To all whom it may concern:

Be it known that I, EUGENE F. CHAPMAN, a citizen of the United States, and a resident of Keytesville, Chariton county, Missouri, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a combination-tool; and the object of my invention is to construct a simple inexpensive frame, which is equipped with a number of different attachments, thus providing in a single implement means whereby various operations are performed which would ordinarily require a large number of different tools and instruments.

A combination-tool of my improved construction is adapted for use as a brace to hold a bit or drill for boring in wood and iron, a hand-vice to hold any small article while being filed or riveted, a tool for ringing hogs, leather or tin cutting tool, a wire-twister, a screw-driver or reamer, a nail or bolt puller, a leather-punch, a saw-set, a plumb-bob, a rotary measuring device, dividers, and various other tools.

To the above purposes my invention consists of certain novel features of construction and arrangement of parts, which will be hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a combination-tool constructed in accordance with my invention. Fig. 2 is a vertical section taken through the center of the combination-tool. Fig. 3 is a side elevation of the tool, showing one of principal arms or levers of the tool elevated and shown in various other positions in dotted lines. Fig. 4 is a side elevation of the tool in use as a nail or bolt puller. Fig. 5 is an elevation of the portion of the tool that is used as a plumb-bob.

In the construction of my combination-tool the main frame is preferably constructed of a single piece of suitable material, such as a flat metal bar bent double, with the central portion forming a head in the shape of a loop 1, which forms the upper end of the frame. In some instances the frame may be constructed of two pieces of suitable material welded or riveted together. From this loop the parts of the frame extend parallel with

one another downwardly, as indicated by 2, and from thence they extend laterally and downwardly at an angle of approximately forty-five degrees, as indicated by 3, and from thence vertically downward, as indicated by 4, and the side faces of these portions 4 are rounded, so as to form a handle, by means of which the frame is manually engaged when the tool is used as a brace to receive a bit or drill.

From the lower ends of the portions 4 the parts of the frame extend horizontally, as indicated by 5, and the extreme ends of these parts being bent inwardly toward one another, as indicated by 6.

Passing vertically through the center of the loop 1 is a bolt 7, on which is pivotally mounted a convex disk 8, provided on its edge with an integral flange 9, and the edge of said flange is provided with a series of graduated marks 10.

Fixed to the under side of the disk is a diametrically-arranged plate 11, one end of which is provided with a hook 12, and formed through this plate is an aperture 13.

A pointer 14, provided on its lower end with a weight 15, is pivotally arranged within the disk on the inside of the plate 11 and upon the bolt 7, and the end of this pointer is normally positioned adjacent the inner edge of the flange 9, on the under side of which is located a series of radially-arranged graduated marks 17.

When the disk 8 is held vertically by being set upon edge, the weighted finger 14 will assume a vertical position and may be used as a plumb-bob, and to ascertain a vertical line or surface the disk is held with the plate 11 approximately vertical, and when the end of the pointer 14 is in the center of the opening 13 the vertical line or surface is established.

18 designates a bracket, one end of the horizontal arm of which is fixed on the lower end of the bolt 7 beneath the loop 1 and the opposite end of which is held, by means of a pin or rivet 19, between the lower portions of the parallel members 2. Formed through the inclined portion of this bracket 18 is an aperture 20, and the end of said bracket that projects through the parts 2 is formed into a hook or jaw 21.

22 designates a lever that is bent to conform with the parts 3 and 4 of the frame, and the upper end of said lever is pivotally mounted on a pin 23, which passes through

the upper portions of the parts 3. The end of the lever above the pin where it is pivoted is formed into a jaw 24, which is directly opposite the jaw 21. Integral with and projecting upwardly from the top side of the lever 22 is a pin 25, which when the lever is riveted to the position seen in Fig. 3 is adapted to pass through the aperture 20 to punch holes in leather, thin sheet metal, and the like.

The jaws 21 and 24 provide means whereby a pipe, bolt, or similar device may be engaged and firmly held.

A portion of the lower edge of the upper end of the lever 22 is sharpened or provided with a knife-edge, as indicated by 26, and provides means for cutting leather, sheet metal, and the like when the lever is moved downwardly, so that said knife-edge passes between the parts 3. A hook 27, formed on the top side of the lever 22, provides means for lifting it out of position from between the parts 3 and 4 of the frame. A claw 28, which is for the purpose of pulling tacks or nails, is formed on the top side of the lever 22, and formed immediately below this claw is a flat face 29, against which a square bolt or the like is engaged and held when the lever 22 is moved through the frame to the right, the opposite side of the bolt being positioned against the sides of the portions 4 of the frame. Formed in the right-hand side of the lever 22, adjacent its lower end, is a notch 30.

31 designates a slotted lever that is held to operate between the horizontal parts 5 of the frame upon a bolt 32, which passes through said parts 5 and through the slot in the slotted lever and receives a winged nut 33 on its outer end. This lever is provided on one face with a series of graduated marks 34, which form a simple measuring device. Formed integral with the upper end of the lever 31 is a lug 35, which is adapted to enter the notch 30 in the lever 22, and a hook 35^a is formed on the lower end of the lever 31 and is for the purpose of engaging beneath the head of a bolt when the same is withdrawn from its seat. A point 36 is formed on the end of the lever 31 adjacent the hook 35^a, and when said lever is swung into a horizontal position and so held by tightening the winged nut 33 this point forms the center or pivot on which the device is moved to describe a circle, there being a pencil arranged and held between the outer ends 6 of the parts 5. (See dotted lines in Fig. 2.)

Formed on the inner faces of the parts 5 and in alignment with the parts 2 are recesses 37, in which is arranged the shank of a bit or drill such as seen in Fig. 2 and which is used

for boring purposes. Arranged in the under side of the portions 5 adjacent these recesses 37 are the notches 38, which are arranged to receive a small knife 39, that is utilized for cutting narrow strips of leather to be used as belt-lacings and the like. A block 40 is located between the parts 5 adjacent the notches 38 and is held upon a bolt 41, passing through the parts 5 and provided on one end with a winged nut 42, which clamps said parts together. The block 40 is shifted upon the bolt 41 in order that leather strips of different sizes may be cut by means of the knife 39.

A combination-tool of my improved construction is simple, strong, and durable, is very compact, can be readily shifted into position for the different uses to which it is put, and combines a number of useful tools in a single-handed and convenient structure.

I claim—

1. In a combination-tool, a frame constructed of a single piece of material bent double and having a vertical portion and a horizontal portion, a disk pivotally mounted on the upper end of the vertical portion, and means whereby tools are clamped between the horizontal portions; substantially as specified.

2. In a combination-tool, a frame consisting of parallel members shaped to form a bit-stock and suitably placed to receive a series of pivoted tools which, when in inoperative position, sustain said members, and means for clamping said members upon the tools, as set forth.

3. In a combination-tool, a frame consisting of parallel members shaped to form a bit-stock, a pivoted disk at one end thereof, means for clamping the members upon a bit together with other tools mounted between the bit-supporting sections of the frame and adapted to give rigidity to the frame in inoperative position while cooperating with the same when projected, as set forth.

4. In a combination-tool, a frame consisting of two parallel members shaped to form a bit-stock, a slotted lever pivoted in the lower section of the members and having hooked extremities, a series of pivoted tools adapted to swing between the frame members and thereby support the same, and means for clamping said members on the tools, as set forth.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

EUGENE F. CHAPMAN.

Witnesses:

M. P. SMITH,
JOHN C. HIGDON.