No. 637,253. Patented Nov. 21, 1899.

J. A. HARRIS.

COMBINATION TOOL.

(Application filed Sept. 14, 1897.)

(No Model.)

Fig: 1.

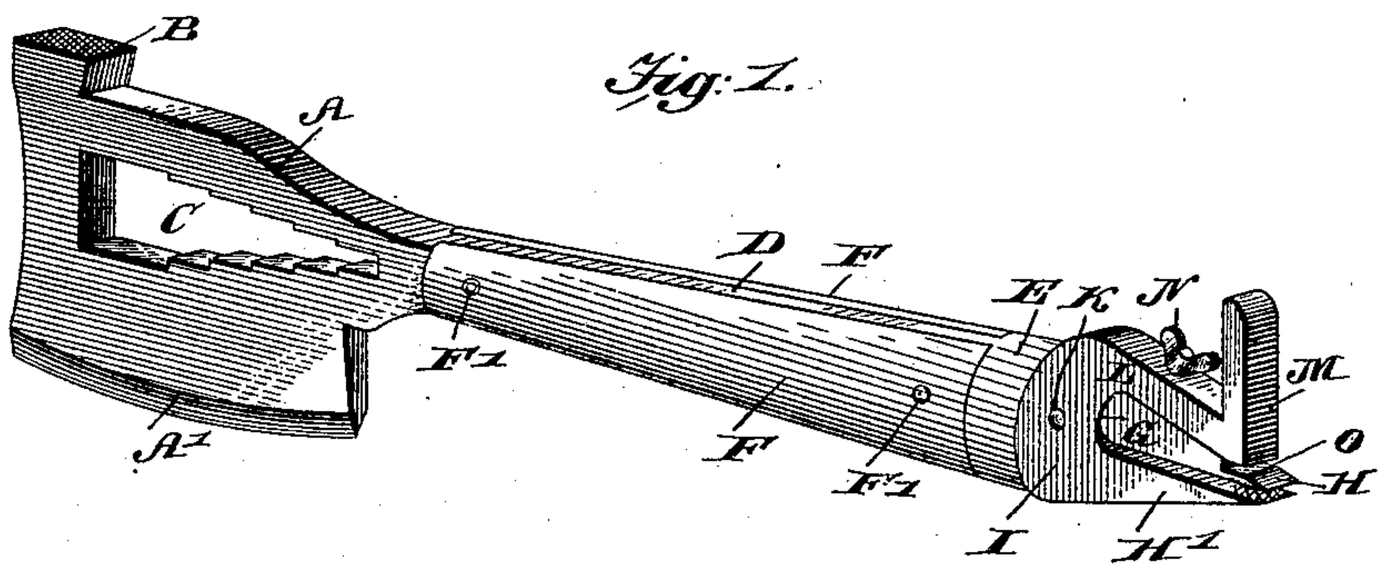


Fig: 2.

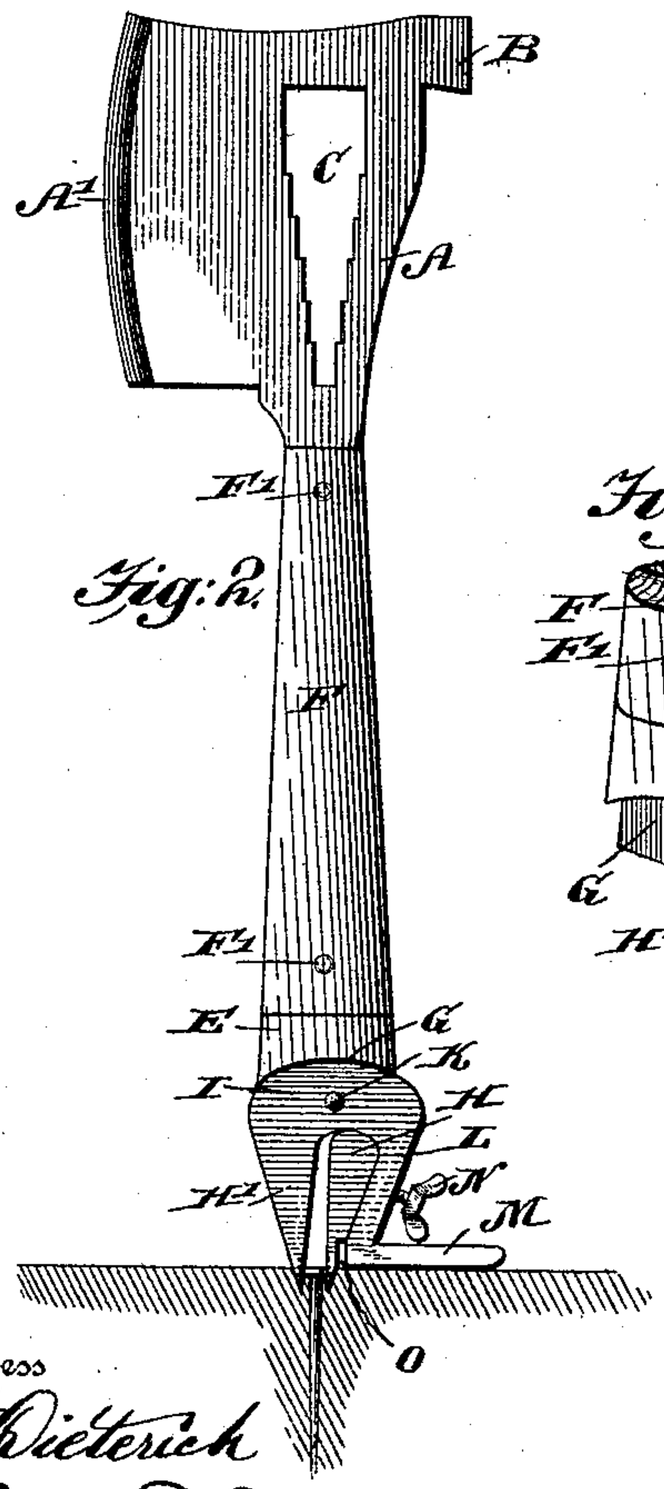


Fig: 3.

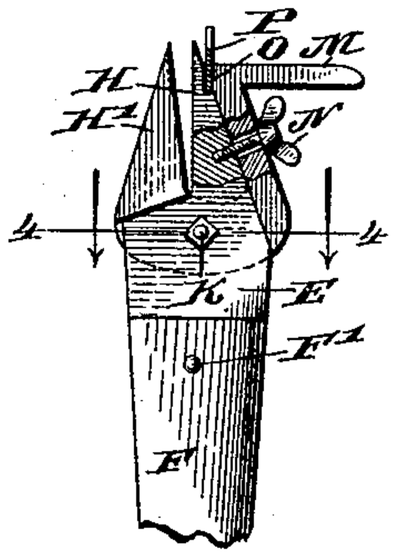


Fig: 5.

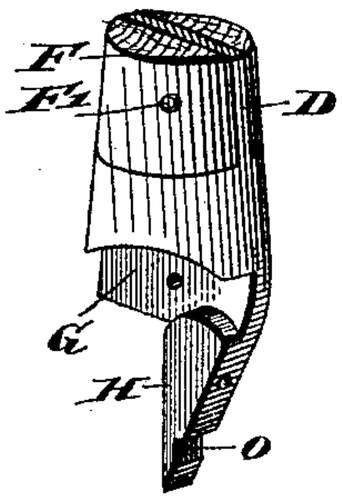
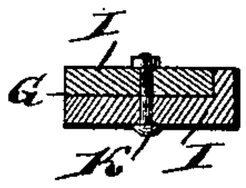


Fig: 4.



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UNITED STATES PATENT OFFICE.

JAMES A. HARRIS, OF CORNSVILLE, VIRGINIA.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 637,253, dated November 21, 1899.

Application filed September 14, 1897. Serial No. 651,602. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. HARRIS, a citizen of the United States, residing at Cornsville, in the county of Scott and State of Virginia, have invented a new and useful Combination-Tool, of which the following is a specification.

My invention is in the nature of a combination-tool, and has for its object to furnish a device of this class which will perform all the functions of several separate tools, in this instance a hatchet, hand-ax or cleaver, a wrench for different sizes of nuts, a hammer, a nail-puller, and a saw-set.

With this object in view my invention consists in a combination-tool comprising a hatchet or cleaver, as aforesaid, having a graduated wrench-slot through its body and a hammer on the opposite side from the blade attached to one end of a handle, upon the other end of which is provided an improved nail-puller and saw-set.

My invention further consists in the improved construction, arrangement, and combination of parts, hereinafter fully described, and afterward specifically pointed out in the appended claim.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a combined tool constructed in accordance with my invention. Fig. 2 is a side elevation of the same in position to be operated as a nail-puller. Fig. 3 is a fragmentary detail view illustrating the manner in which my combination-tool is used as a saw-set. Fig. 4 is a horizontal transverse section on the line 4 4 of Fig. 3, looking in the direction of the arrows. Fig. 5 is a detail perspective view of the head and one jaw of the nail-puller.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the drawings by letters, A is the body of a hand-ax, hatchet, or cleaver provided with a suitable edge A′ on one side and a hammer B on the other, a slot C being formed therein, consisting of graduated sections to embrace nuts of different sizes and to be used as a wrench. The body A of the ax, as aforesaid, is connected to one end of a thin strip D of steel, which has connected to or formed with its opposite end a head E, the space on each side of the strip D, between the body A and head E, being filled in with blocks of wood F, secured to the strip by means of rivets F′, whereby the handle is rounded out. The head E is of the same size as the adjacent end of the wooden handle, so that the surface thereof will be flush with the surface of the wooden plates F, and extending forwardly from the head is a flange G, upon which is formed one point H of the nail-puller. The other point H′ of the nail-puller is projected forward from a block I, which is pivotally connected by a pin K to the flange G, the point H′ resting against one side of the point H and the block being provided with an arm L, which passes around the outside of the point H and is provided with an angular projection M. A set-screw N passes through an opening in the arm L and is threaded into the point H, whereby the arm L may be thrown tightly against the side of the point H. A notch O is cut out of the outer side of the point H, which provides a recess in which to place a saw-blade P, which may be set by punching alternate teeth against the forward edge of the point H, the position of the saw being shown in Fig. 3.

The operation of my invention will be obvious from the foregoing description. To use the device as a cleaver, hatchet, or small ax, the handle will be grasped in the usual way. As a wrench it will only be necessary to adjust the device over the nut and bring it into a recess of a size to suit it, when it may be turned at will in either direction. For use as a hammer it is only necessary to reverse the position of the blade. For use as a nail-puller the points are placed by the side of a nail and thrust into the wood, when by using the arm M as a fulcrum the points will be caused to more tightly clamp the nail as more pressure is applied. The use of the device as a saw-set, as illustrated in Fig. 3, has been before described.

While I have illustrated and described what I believe to be the best means for carrying out my invention, I do not wish to be

understood as limiting myself to the exact construction and arrangement shown and described, but hold that such slight changes and variations as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

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

In a device of the kind described, a handle, a flange secured to said handle at one end thereof and carrying a point, a substantially U-shaped block I, pivotally connected to said flange, said block having one of its members formed into a point and a right-angular arm or fulcrum secured at the free end of the other member, and adapted to be clamped to the side of the first-named point, by means of the set-screw N, substantially as described.

JAMES A. HARRIS.

Witnesses:
W. C. R. STRONG,
W. P. HORTON.