(No Model.)

S. L. HEINOLD.

COMBINATION TOOL.

No. 401,821. Patented Apr. 23, 1889.

Fig. 1.

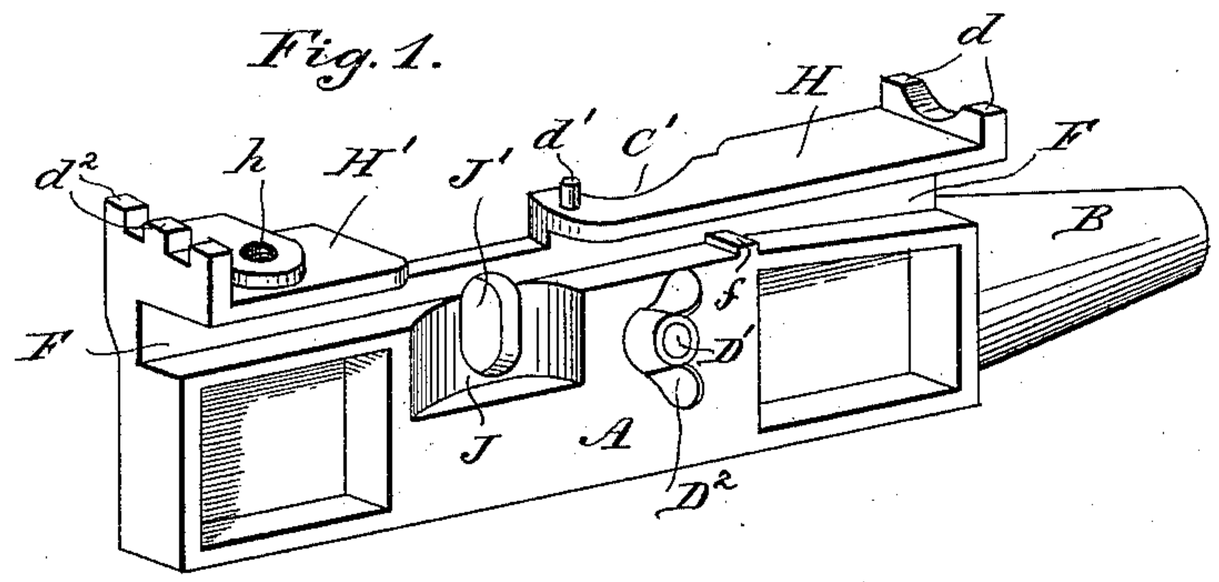


Fig. 2.

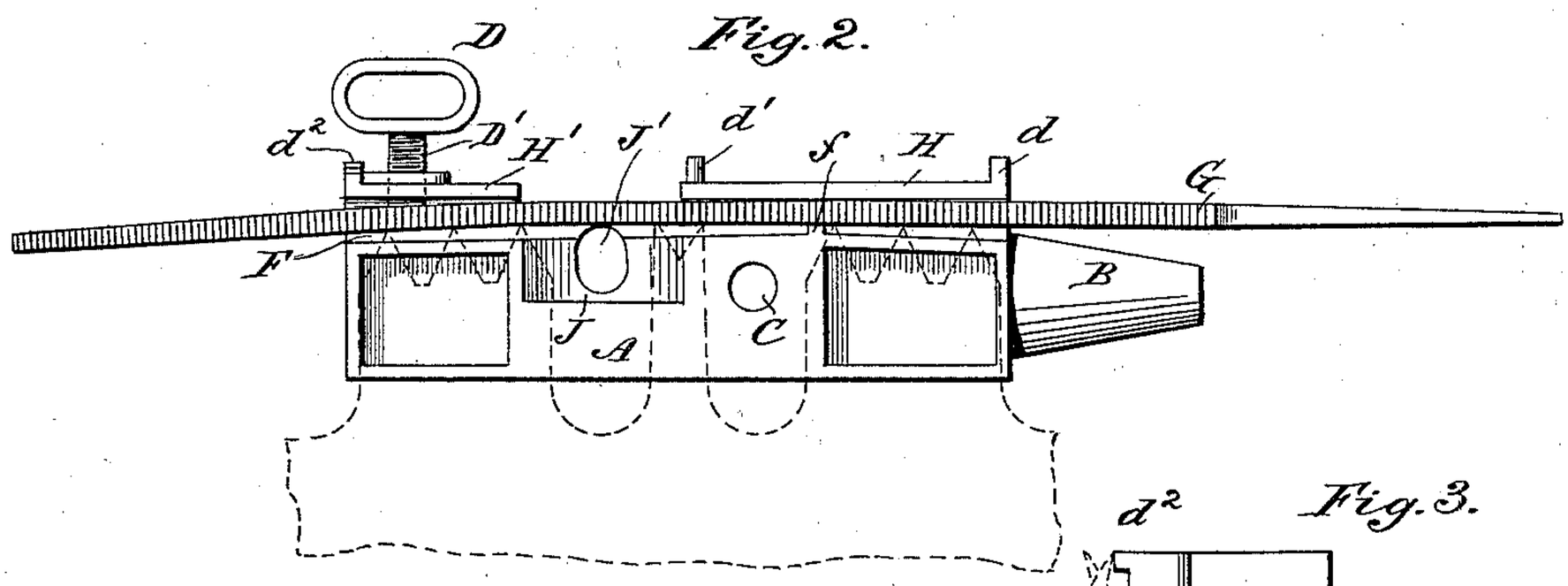


Fig. 3.

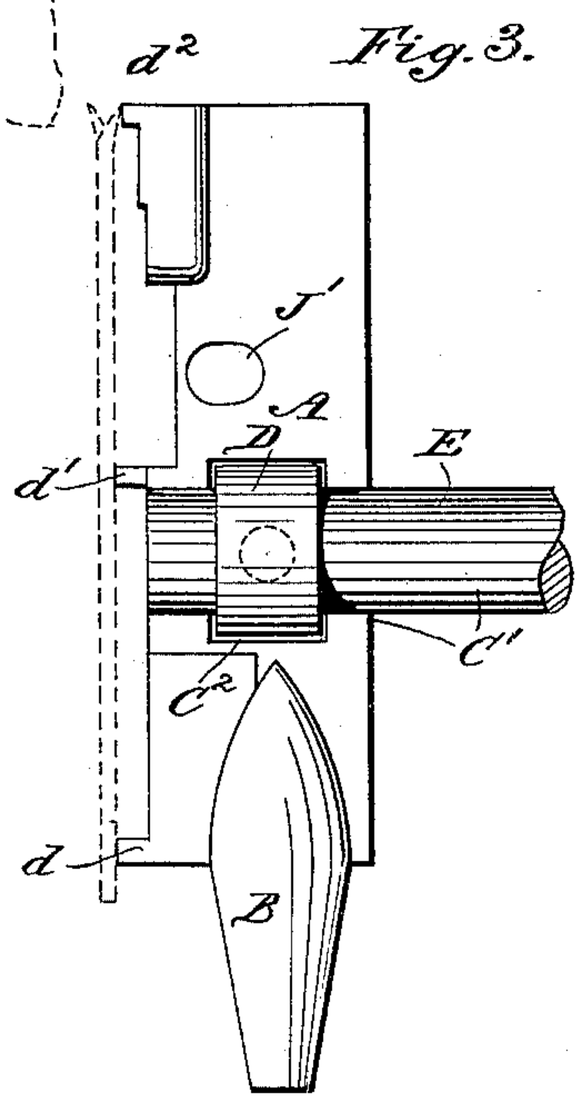


Fig. 4.

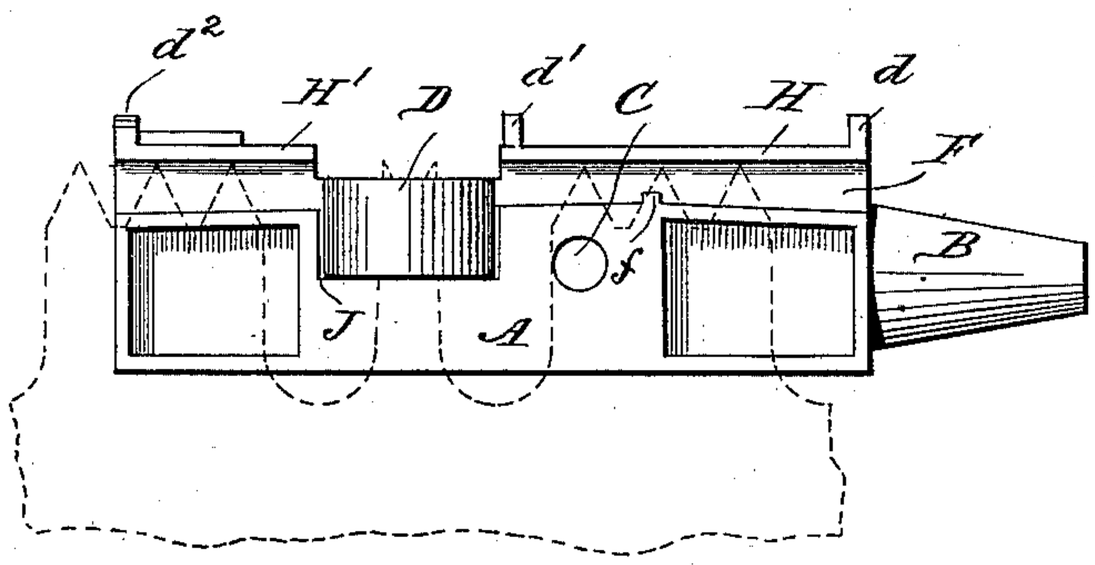
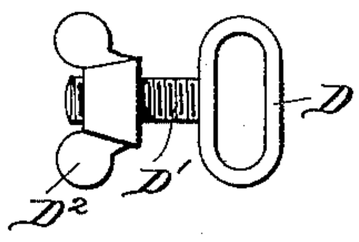


Fig. 5.



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SAMUEL L. HEINOLD, OF ANDERSON, INDIANA.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 401,821, dated April 23, 1889.

Application filed October 26, 1888. Serial No. 289,233. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL LUDWIG HEINOLD, of Anderson, in the county of Madison and State of Indiana, have invented a new and Improved Combination-Tool, of which the following is a full, clear, and exact description.

My invention consists of a combination-tool comprising a hammer, crosscut-saw set, and gage, and constructed, also, to hold a file for dressing and pointing saw-teeth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my invention without a handle. Fig. 2 is a side view of the same provided with a file, and Fig. 3 is a side view showing the tool provided with a handle and illustrating its use as a saw-gage. Fig. 4 shows the tool applied to the raker-teeth, and Fig. 5 is a detailed view of the eye.

A represents the main body of the tool, formed at one end with the hammer-head B, and in the center with an aperture, C, concave C′, and socket C^2, to receive the eye D, and screw-shank D′, to hold the handle E.

Along one side of the tool is formed a groove, F, to receive a file, G. In the lower surface of this groove is formed the stud *f*, to act as a fulcrum to the file, the same being held by the flange H. In flange H′ is formed a screw-threaded opening, *h*, to receive the screw-shank D′ to act upon the file for curving the same to fit the curve of a crosscut-saw, as illustrated in Fig. 2. The tool when thus provided with a file is adapted for dressing the cutting-teeth of a saw all to a uniform length.

A considerable space is left between the adjacent ends of the flanges H H′, and coincident with this space is formed the concaved recess J, and in the wall of which is formed the aperture J′. This aperture permits the eye D to be fastened in the recess J by the shank D′ and thumb-screw D^2. When so placed in the recess J, the upper edge of the eye D′ stands somewhat lower than the lower surfaces of the flanges H H′, and when these flanges rest upon the cutting-teeth of the saw, as shown in Fig. 4, the points of the drag-teeth will stand somewhat above the eye D′, which becomes a gage by which to shorten the drag-teeth. The aperture J is elongated, so that the eye D′ may be adjusted and held by nut D^2 at different positions relative to the under surface of the flanges H H′.

The use of the tool as a saw-gage is illustrated in full and dotted lines in Fig. 4. For this purpose the tool is provided at one end with the lugs *d* and centrally with the lug *d*′, which lugs are in the same plane. At the opposite end lugs d^2 are provided, which lugs do not project to the plane of the lugs *d d*′, being somewhat shorter, and, as shown most clearly in Fig. 1, vary slightly in length, so that a saw may be set for use on different kinds of wood.

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

1. The combination-tool herein shown and described, the same consisting of a main body, A, hammer, file-holding groove F, gage projections, and an eye, D, adapted for holding a handle and for dressing the drag-teeth, as set forth.

2. The main body A, formed with spaced flanges H H′ and aperture J′, in combination with the gage-eye D, substantially as described.

3. The main body A, formed with flanges H H′ and fulcrum *f*, the flange H′ being provided with the threaded opening *h*, in combination with a screw, D′, substantially as described.

4. The body A, formed with recess J, flanges H H′, and slot J′, in combination with the eye D, having threaded shank D′, and the nut D^2, substantially as described.

5. The body A, formed with the concave C′, socket C^2, and aperture C, in combination with the handle E, eye D, having threaded shank D′, and the nut D^2, substantially as described.

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Witnesses:
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