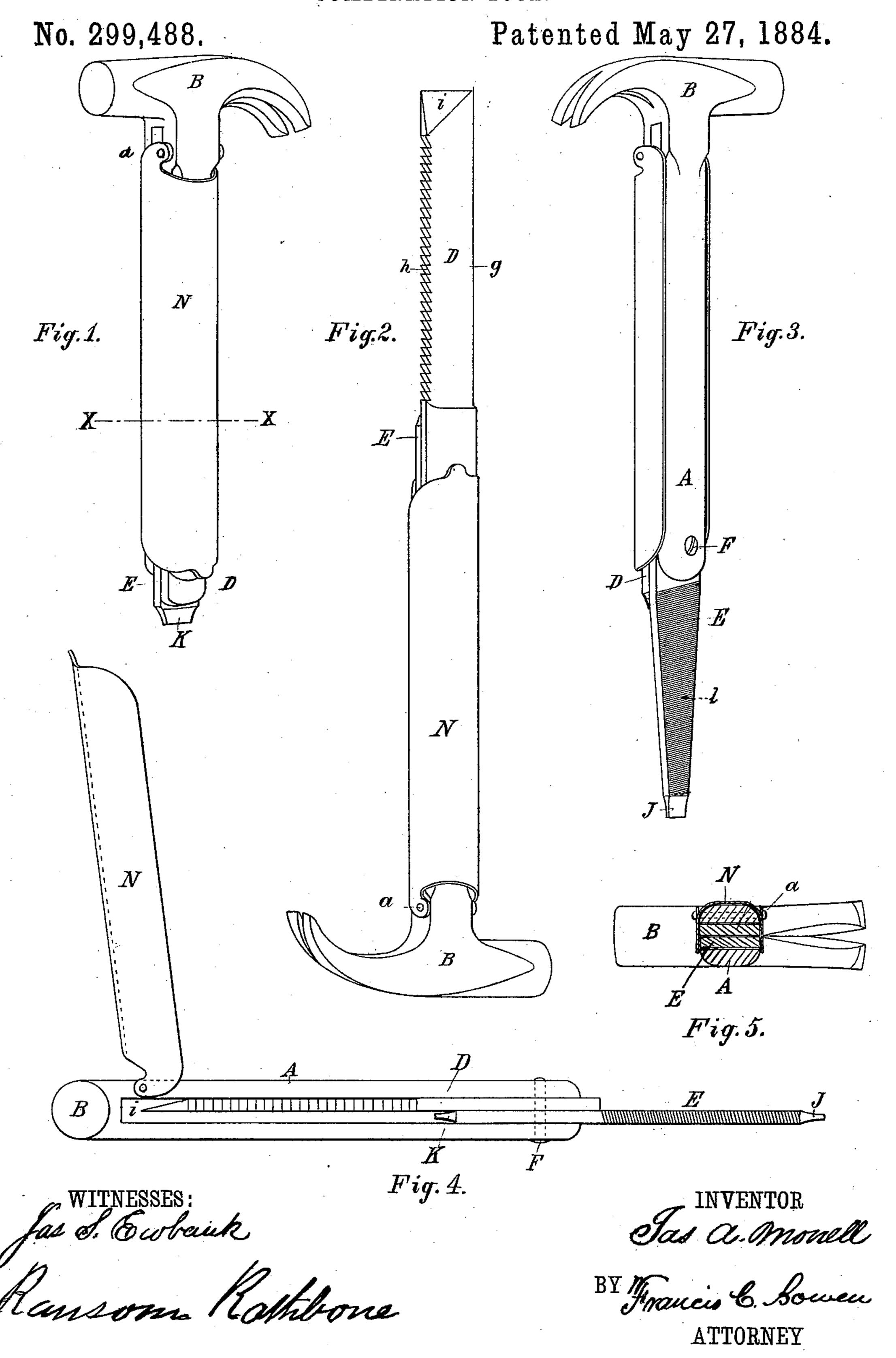
J. A. MORRELL.

COMBINATION TOOL.



United States Patent Office.

JAMES A. MORRELL, OF NEW YORK, N. Y.

COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 299,488, dated May 27, 1884.

Application filed September 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, James A. Morrell, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Combination-Tools, of which the following is a specification, reference being had therein to the accompanying drawings.

The primary object of my invention is to combine in one and the same tool a hammer, knife, saw, chisel, screw-driver, and file in such a manner that while the parts named are interchangeable in use, they occupy the least possible space. This object I have accomplished by the novel means hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing the movable parts of the tool folded. Fig. 2 is a similar view showing the knife, saw, and chisel unfolded. Fig. 3 is a similar view showing the screw-driver unfolded. Fig. 4 is an inverted plan view corresponding to Fig. 3, showing also the clasp unfolded. Fig. 5 is a cross-section on line x x, Fig. 1.

Similar letters indicate similar parts.

The letter A designates the handle of my tool, having one end fitted with a head, B, to 30 form a hammer and having its opposite end bifurcated inward to a point near the hammerhead to receive two blades, DE, which are pivoted at or near the extremity of the handle, as, by a screw, F, to fold into or unfold from the 35 handle, as the case may be. The blade D is sharpened on one edge, as at g, to form a knife, and serrated on the opposite edge, as at h, to form a saw, while it is also sharpened at the outer or free end, as at i, to form a chisel. The 40 blade E is beveled at both ends, as at J K, to form a double-ended screw-driver, one end thereof being also usually made wider than the other to vary the capacity of the tool thus obtained, while one side of this blade is rough-45 ened, as at *l*, to form a file.

It will be seen that when the blade D is unfolded from the handle, the knife g, the saw h, or the chisel i may be used. When the blade E is unfolded, one or the projecting end J or K

thereof or the file *l* may be used, the handle A 50 being common to all the several parts, while the screw-driver blade may also be utilized to form an extension to the handle. Either part named, moreover, is not liable to interfere with the use or operation of the other, while, when the 55 blades D E are folded into the handle A, the tool is brought into the smallest possible compass.

For the purpose of holding the blades D E either in a folded or unfolded position, I make use of a clasp, N, which is pivoted to the han-60 dle A, near the end, having the hammer-head B, as at a, and is made substantially U-shaped in cross-section to embrace the handle, while it is preferably extended to a point beyond the pivot F of the blades, so that when this clasp 65 is adjusted upon the handle it effectually opposes the movement of the blades in any direction, while, due to the position, it is naturally grasped by the hand in which the tool is held.

In the manufacture of my tool, steel of good quality and of the proper temper should be used, to insure the strength and durability of the parts.

If desired, the bifurcated handle may be pro- 75 vided at the inner end with a guard to prevent the knife-edge of the blade D from passing through the handle when such blade is folded.

What I claim, and desire to secure by Letters 80 Patent, is—

1. The combination, with the handle fitted with the hammer-head at one end and bifurcated at the opposite end, of the pivoted blade D, comprising the knife g, saw h, and chisel i, 85 substantially as described.

2. The combination, with the handle fitted with the hammer-head at one end and bifurcated at the opposite end, of the blade D, comprising a knife, saw, and chisel, and the U-90 shaped clasp pivoted to the handle, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES A. MORRELL.

Witnesses:

FRANCIS CLARE BOWEN, JAS. S. EWBANK.