

No. 655,007.

Patented July 31, 1900.

W. K. RAIRIGH.  
COMBINATION TOOL.

(Application filed Nov. 2, 1899.)

(No Model.)

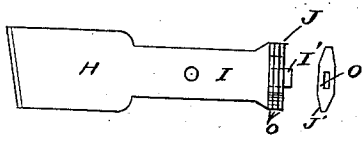


FIG. 5.

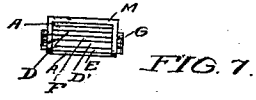


FIG. 7.

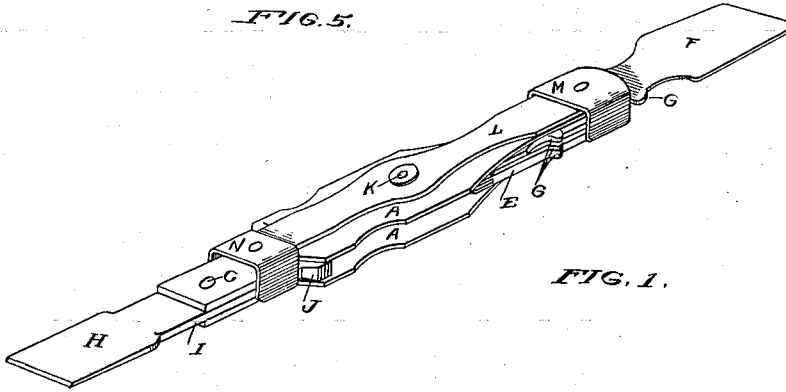


FIG. 1.

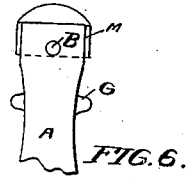


FIG. 6.

FIG. 4.

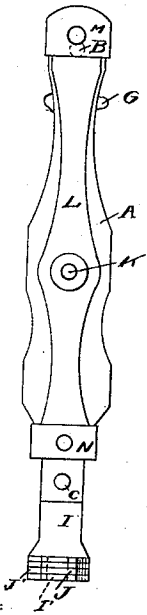


FIG. 3.

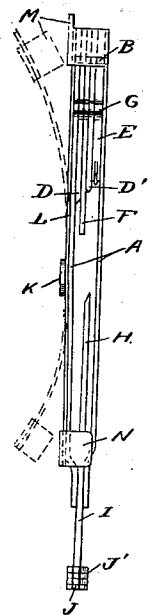
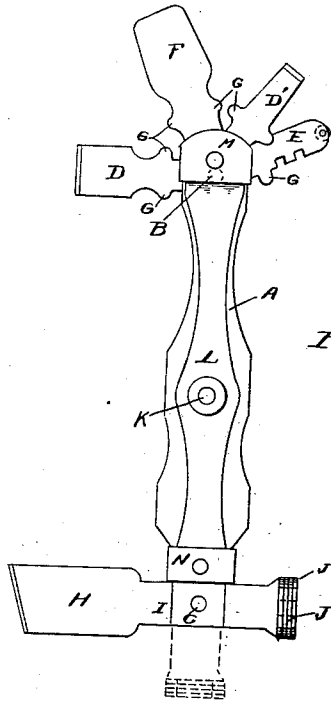


FIG. 2.



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# UNITED STATES PATENT OFFICE.

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## COMBINATION-TOOL.

SPECIFICATION forming part of Letters Patent No. 655,007, dated July 31, 1900.

Application filed November 2, 1899. Serial No. 735,574. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM K. RAIRIGH, a citizen of the United States, residing at Kittanning, in the county of Armstrong and State of Pennsylvania, have invented new and useful Improvements in Combination-Tools, of which the following is a specification.

This invention relates to combination-tools, and has for its object to assemble a number of tools in a handle or holder, in which they are adapted to be confined and protected when not in use and from which any one of the tools may be moved to and held in operative position.

The invention consists in the novel features of construction and in the combination and arrangement of parts hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of my improved device, which includes in addition to other tools a putty or glazier's knife, shown in operative position. Fig. 2 is a side elevation shown with its head turned to position for driving glazier's points and with the tools at the other end of the handle turned out, any one of which may be turned to operative position, with the others confined in the handle. Fig. 3 is an edge view. Fig. 4 is a side elevation with all the tools turned into the handle. Fig. 5 is a detail view of the glazier's knife, illustrating the construction of the driving-head. Fig. 6 is an elevation of one end of the tool, showing the reverse side from that illustrated in Figs. 2 and 4. Fig. 7 is an end view.

A designates the separated sides of the tool or holder connected at opposite ends by rivets B and C. Any desired assortment of tools may be pivotally mounted on rivet B to turn between sides A; but as the tool here illustrated is designed especially for glazier's use I have shown a chisel D, screw-driver D', a glass-cutter E, and an extension-handle F. Each of these devices is pivoted at its shank end on rivet B, as shown, and each is provided on its opposite edges with a nib or projection G. These projections protrude beyond the longitudinal edges of handle or holder A and afford ready and convenient means for starting the tools out of the handle from closed position as they are required for use.

Pivoted at the opposite end of the handle on rivet C is putty-knife H, having elongated shank I, which terminates in head J. Secured centrally to the outer side of the handle at K is elongated flat spring L, carrying at its opposite ends the inwardly-projecting angular clips M and N. These clips are of sufficient size to embrace the handle or holder extremities and also the shanks of the several tools when turned entirely inward or entirely outward, thus firmly holding the tools either in operative position or turned into the handle and out of the way. The spring ends may be readily sprung outward sufficiently to permit of the tools being turned, while at the same time the spring constitutes an automatic lock for holding the tools in the position desired.

It will be observed that clip N is positioned inward from rivet C and from shank I of putty-knife H, and thus serves to embrace the handle end and shank I for holding the knife turned either inward or outward and at the same time may embrace the handle end alone and secure the knife in position at right angles to the handle, as in Fig. 2, whereby head J may be utilized for driving glazier's points.

With a view to economic manufacture all portions of the tool, save the rivets, may be formed by stamping, head J being made of three or more stamped sections O, centrally apertured to fit on reduced extremity I' of shank I, the end of reduced portion I' being upset to secure the sections in place. It will be observed that head J is beveled on opposite sides at J', whereby it may face the glass in proper manner for driving the points. Extension-handle F may be turned outward, as in Fig. 2, and secured by clip M, as above described, at the convenience of the user.

While I have here illustrated and described a tool adapted particularly for glaziers, I do not wish to be understood as restricting my invention thereto. Any convenient number of blanks may be mounted to turn on pivots B and C, and these blanks may be formed into tools of various kinds, and combinations of tools may thus be assembled with particular reference to a diversity of uses. Thus for hunters' use the blanks may be formed into several sizes of knife-blades, hooks, saws, &c.,

and instead of putty-knife H a stout chisel may be provided, which, in conjunction with a head corresponding to head J, may be used by the hunter as a hatchet.

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

1. The combination of a handle, tools pivoted to turn therein, a flat spring secured to the handle, and a device carried by a free portion of the spring for rigidly uniting the handle and tools, substantially as shown and described.

2. The combination of a handle, tools pivoted in the handle and adapted to turn therein, and a laterally-movable clip open on one side to embrace the tools and handle adjacent the pivotal point and hold the tools either in inwardly or outwardly turned position, substantially as shown and described.

3. The combination of a handle, tools pivoted to turn therein, a flat spring secured to the outer side of the handle, and a clip secured to a free portion of the spring and maintained by the latter normally in engagement with the tools for holding them in position rigid with the handle, substantially as shown and described.

4. The combination of a handle, tools pivoted to turn in opposite ends of the handle,

an elongated flat spring secured between its ends to the outer side of the handle, and tool-embracing clips on the extremities of the spring for engaging the tools and holding them in position, substantially as shown and described.

5. In an implement of the character described, the combination of a handle, tools pivoted therein, an elongated spring secured to one side of the handle, and a clip carried by the said spring, said clip having an open side to removably embrace the tools, substantially as shown and described.

6. In an implement of the character described, the combination of a handle, tools pivoted in opposite ends thereof, an elongated flat spring secured between its ends to one side of the handle, and a clip at each end of the spring for the corresponding ends of the handle, each of said clips having an open side to removably embrace the tools for rigidly holding them in adjustment, substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM K. RAIRIGH.

Witnesses:

J. H. PAINTER.

W. H. McLAUGHLIN.