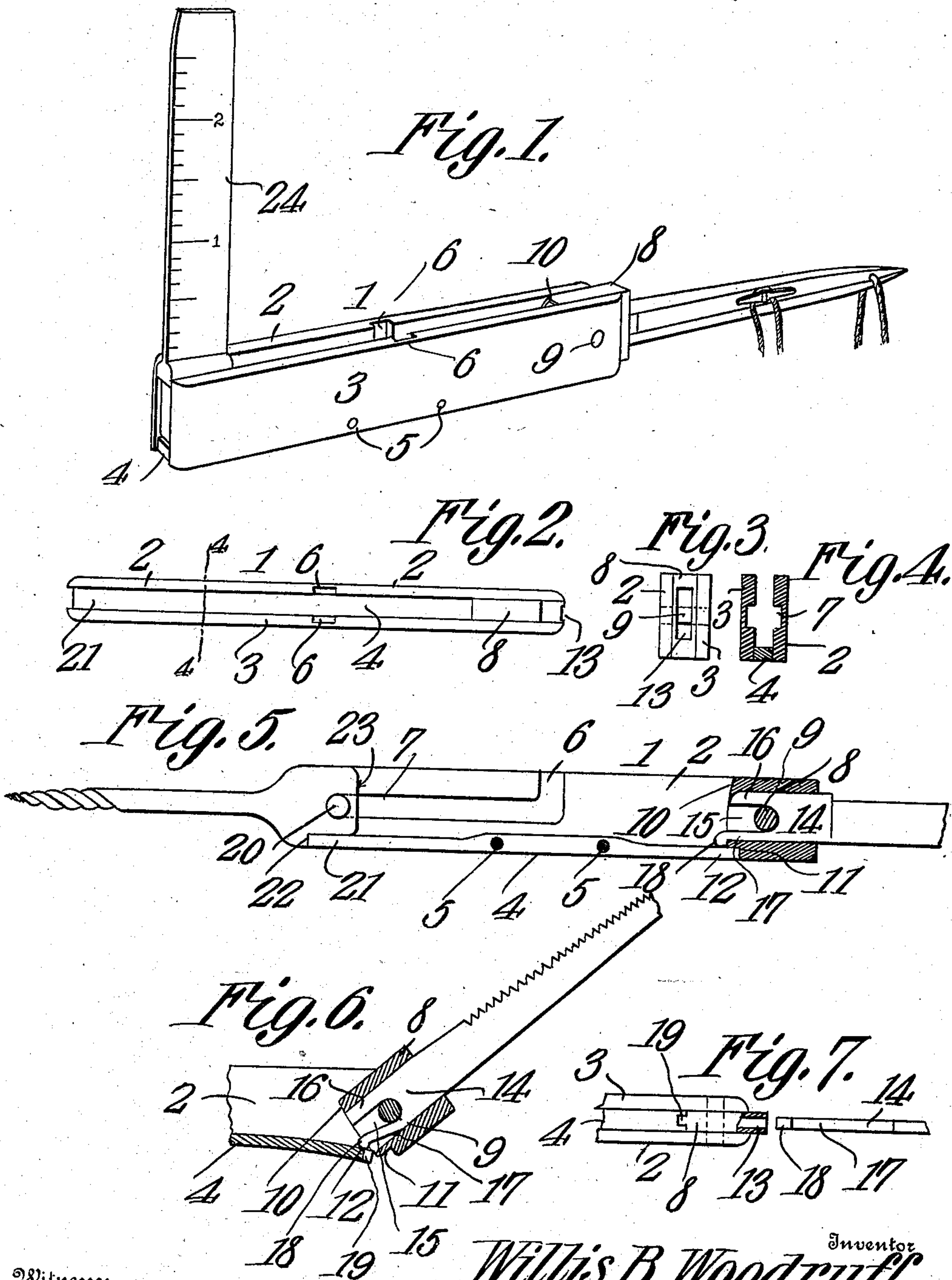


W. B. WOODRUFF.
TOOL HANDLE.
APPLICATION FILED NOV. 30, 1907.

900,339.

Patented Oct. 6, 1908.



Witnesses

E. J. Wood
J. P. Hellingworth

Willis B. Woodruff.

By

C. A. Snow

Attorneys

UNITED STATES PATENT OFFICE.

WILLIS B. WOODRUFF, OF CADIZ, KENTUCKY.

TOOL-HANDLE.

No. 900,339.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed November 20, 1907. Serial No. 404,624.

To all whom it may concern:

Be it known that I, WILLIS B. WOODRUFF, a citizen of the United States, residing at Cadiz, in the county of Trigg and State of Kentucky, have invented a new and useful Tool-Handle, of which the following is a specification.

This invention relates to a tool handle, and has for its object to provide an article, resembling in some respects, a pocket knife handle having means at each end for securely holding in operative position, one at a time, a variety of small tools which are capable of quick attachment to and removal from said handle. A back spring, similar to a pocket knife spring, is employed to hold the tools in place after being properly inserted in the ends of the handle.

Other objects of invention not hereinabove recited will be presented in the description following, reference being had to the accompanying drawing, in which,

Figure 1 is a perspective view of the invention with a tool in position in either end; Fig. 2 is a top plan view of the handle alone; Fig. 3 is a view of one end of the handle; Fig. 4 is a vertical cross section on the line 4-4, Fig. 2; Fig. 5 is a longitudinal section of the tool handle showing how the tools are applied to the handle and held therein; Fig. 6 is a view of one end of the tool handle illustrating the manner of removing a tool, and Fig. 7 is a rear view of the same end of the handle.

Similar reference numerals are used for the same parts in all the figures.

The tool handle as a whole is indicated by the numeral 1 and comprises two side plates 2 and 3 and a back spring 4 fastened to the plates by rivets 5, resembling in general appearance a pocket knife handle. The side plates 2 and 3 are separated to width of the back spring 4, and each is provided on its inner face with a straight transverse groove 6 about the middle of the plate running from the front edge of said plate to its center where it meets a longitudinal groove 7 extending nearly to one end of the plate. These connected grooves 6 and 7 form a guide way for certain tools as they are slid to position at one end of the handle. At the opposite end of the tool handle 1 and between the plates 2 and 3 is a block 8 pivotally supported on a pin 9 extending through said plates. The block 8 is slightly curved on the end 10 which is innermost when in operative position, and has a notch 11 at one corner into which one

end 12 of the back spring 4 enters and holds the block fixed after the manner of a knife blade. Through the block 8 is made a rectangular opening 13 in which the shanks of the tools carried at this end of the handle are placed, and locked against removal while in operative position. To secure a firm connection between the blades and the block 8, the shank 14 of each blade is made to fit snugly the opening 13 and provided with a longitudinal slot 15, thus dividing the end of the shank into two fingers 16 and 17. The finger 17 is the narrower and has on its end a lug 18 directed rearwardly.

When the shank is slipped into the block 8, the pivot pin 9 enters the slot 13 and the fingers 16 and 17 pass on opposite sides of said pin which latter is nearer the rear wall of the slot than its front wall. This prevents the incorrect insertion of a tool into the slot 13. After the tool shank has been pushed in as far as it will go, the lug 18 on the smaller finger 17 springs behind the edge of the slot 13, see Fig. 5, and prevents the tool from being withdrawn or falling out of the block. The tool may be inserted in the block in any position of the latter, but it can be withdrawn only when the block is in one particular position, that illustrated in Fig. 6, because the lug 18 on the spring finger 17 remains locked at all times except when passing the end 12 of the back spring at which time the lug, bearing on the spring, causes the finger 17 to yield and disengage the lug from behind the block so that the tool may be removed. The finger 17 it will be observed projects beyond the curved end of the block, therefore, to enable the spring to bear on the block at the same time the finger 17 is under tension, the end 12 of the back spring is notched as at 19 to equalize the pressure of said spring on the block and finger.

There being nothing between the side plates 2 and 3 at the grooved end of the handle, the space for the tools is wider, and for this reason the heavier tools are secured in this end. The shank of each tool designed for this end of the handle is as thick as the space between the plates is wide and it has a pin or stud 20 projecting from each side adapted to enter the grooves 6 and 7 in the side plates. A tool is held perpendicular to the handle and the pins 20 on the tool shank inserted in the grooves 6 and then, holding the tool in the same position, it is moved to the

end of the grooves 7, as shown in Fig. 1, and opened out like a knife blade, the end 21 of the back spring 4 interlocks with a corner notch 22 on the shank and holds the tool 5 firmly in operative position. The grooved end of the handle is adaptable for tools extending in line with the handle or at right angles thereto by making the end 23 of the shank flat so that the back spring 4 will bear 10 squarely thereon in the manner represented in Fig. 1 where a flat blade 24 with parallel edges is used as a try-square, in connection with the handle. This blade has a measuring scale on one side and its end fashioned 15 into a screw driver.

A tool handle constructed as above described is an exceedingly convenient and useful article, very simple in its construction and so designed that any one of a great variety of tools such for instance as the combined rule, square and screw driver above 20 mentioned, knife blades, punches, gimlet, awl, saw, cork screw et cetera may be quickly secured therein and disengaged therefrom. 25 It can be carried in the pocket like a knife and the tools packed closely in a suitable case in a coat pocket or other convenient place about the person. A tool may also be carried in each end of the handle, the two 30 folded like knife blades. This arrangement is rendered possible by the use of the back spring in preference to other forms of spring fastening means.

Having thus described my invention, what

I claim as new and desire to secure by Letters-Patent is:—

1. A tool handle comprising a pair of spaced plates, a back spring between said plates and fastened thereto at its middle, each plate having on its inner face a transverse groove and a central longitudinal groove extending from said transverse groove to one end of the handle, and a block pivoted on a pin at the other end of the handle, said block having a through opening for 45 a tool and a shoulder to engage with one end of said spring.

2. A tool handle comprising a pair of spaced plates, a back spring between said plates and fastened thereto at one edge 50 thereof, a block pivoted between said plates on a through pin at one end of the handle and provided with an opening to receive a tool and a shoulder to engage with one end of said spring, and a tool having a shank 55 fitted to said opening in the block and divided by a slot into two fingers adapted to straddle said pivot pin, one of said fingers having a lug to engage behind said block and prevent its withdrawal. 60

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIS B. WOODRUFF.

Witnesses:

FELIX B. WILKINSON,
WALLIS G. SHAW.