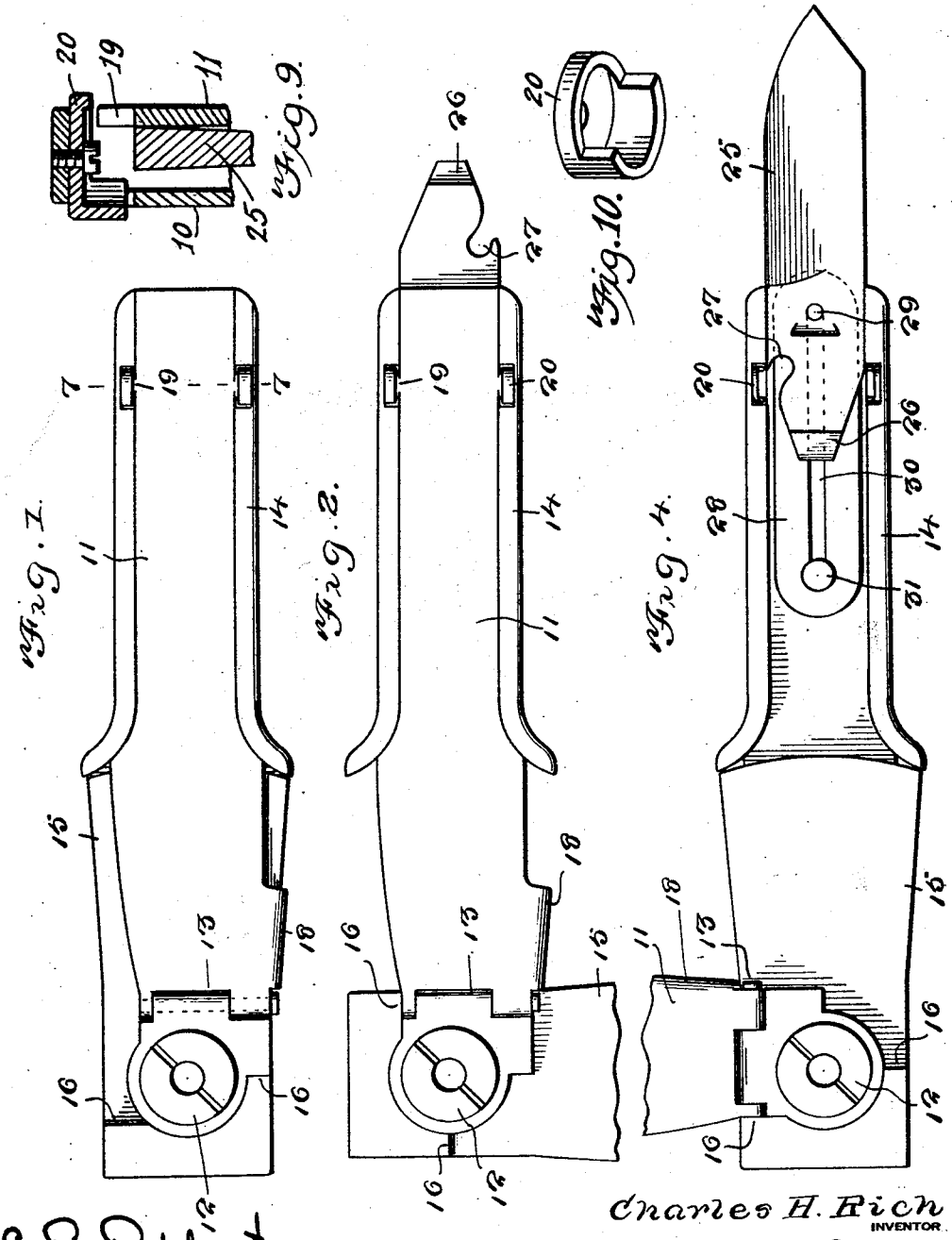
Nov. 3, 1925. 1,559,780

C. H. RICH

COMBINATION TOOL

Filed Nov. 15, 1920 2 Sheets-Sheet 1



E. R. Ruppert.

WITNESS:

Charles H. Rich
INVENTOR

BY Victor J. Evans
ATTORNEY

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2 Sheets-Sheet 2

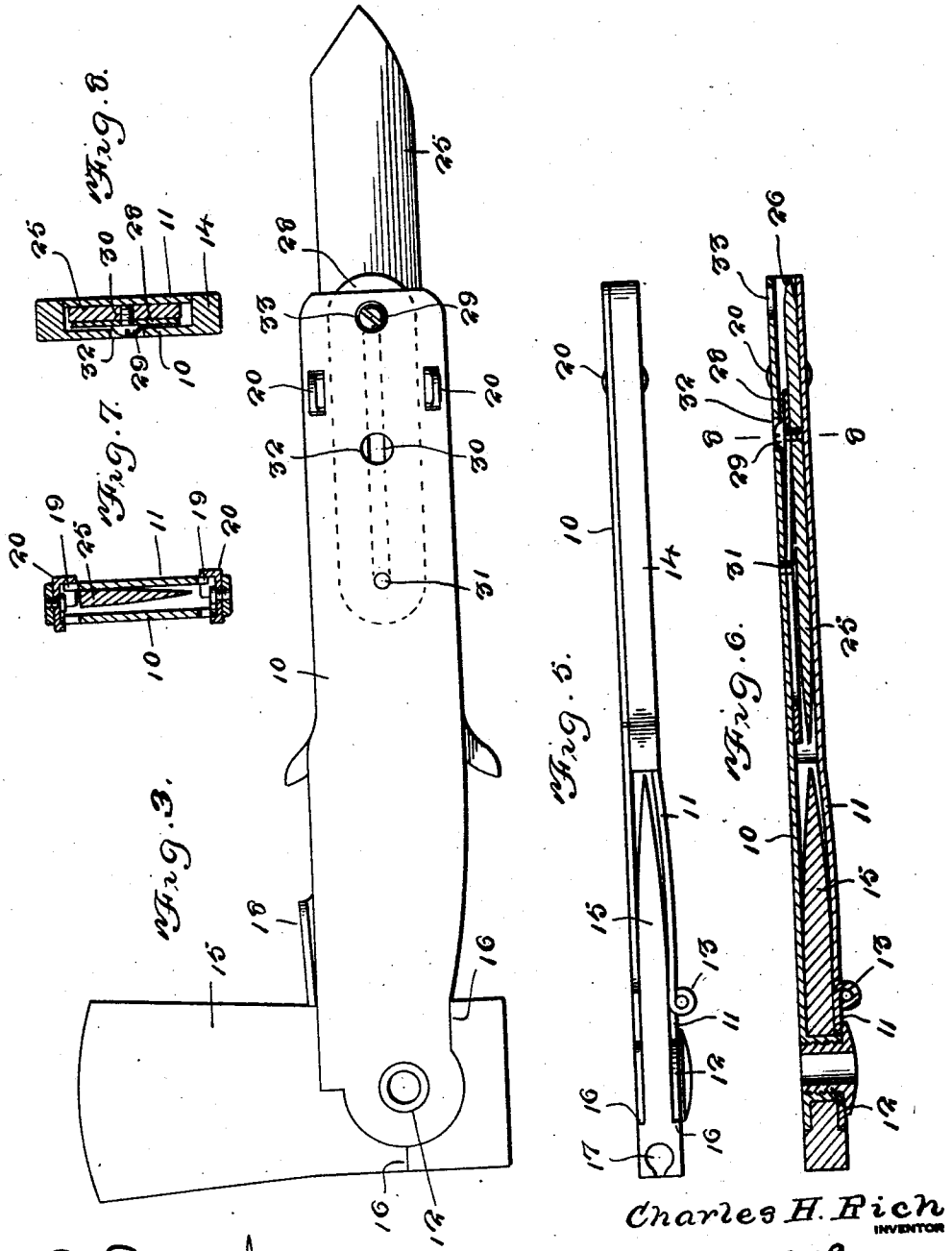


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Charles H. Rich
INVENTOR

BY Victor J. Evans
ATTORNEY

WITNESS:

Patented Nov. 3, 1925. 1,559,780

UNITED STATES PATENT OFFICE.

CHARLES H. RICH, OF WOOLRICH, PENNSYLVANIA.

COMBINATION TOOL.

Application filed November 15, 1920. Serial No. 424,207.

To all whom it may concern:

Be it known that I, CHARLES H. RICH, a citizen of the United States, residing at Woolrich, in the county of Clinton 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 embodies amongst other features, a handle of novel construction in which the tools are normally arranged, the handle being designed to allow said tools to be readily and easily extended to a position for use, and subsequently locked against movement with relation to the handle.

More specifically stated the invention embodies a tool mounted upon a handle for both sliding and pivotal movement, so that either end of the tool may be presented for use, the tool being equipped with means for cooperating with the handle and holding the tool fixed relatively to the handle in either its normal or active position.

In carrying out the invention, I provide a device including a plurality of cutting tools, normally arranged in a two-part handle, one of the tools being mounted for sliding movement and adapted to be projected beyond one end of the handle, while the other tool is pivotally mounted and adapted to extend perpendicularly from the opposite end of the handle, said handle being designed to permit access to either of the tools, and cooperating with means carried by the tools for holding the latter fixed with respect to the handle in their given positions.

One of the chief characteristics of the invention resides in providing a tool including a two-part handle between which a cutting element is normally arranged, the latter being pivoted and adapted to be projected perpendicularly from the handle for use, and one part of the handle being pivoted with respect to the other and designed to engage the cutting element to move it to an active position when swung upon its pivot, and subsequently cooperating with said cutting element to hold it immovable with respect to the handle, means being also provided for holding the respective parts of the handle operatively associated.

Other objects and advantages will appear as the following detail description is read in connection with the accompanying drawings, the invention residing in the combination, construction and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate the similar parts in the several views and wherein:

Fig. 1 is a plan view of the tool forming the subject-matter of my invention with the parts in normal or closed and inactive position;

Fig. 2 is a view similar to Fig. 1, showing the reversed position of one of the cutting elements and the active or extended position of the other;

Fig. 3 is a view, partly in section, showing the cutting elements extended for use;

Fig. 4 is a plan view showing the extended position of one of the cutting elements and also the normal position of one part of the handle which is utilized to move the other cutting element to an active position;

Fig. 5 is an edge elevation of the tool;

Fig. 6 is a longitudinal sectional view;

Fig. 7 is a sectional view taken on line 7—7 of Fig. 1; and

Fig. 8 is a sectional view taken on line 8—8 of Fig. 6.

Figures 9 and 10 are detail views of the latch means embodied in the invention.

The tool forming the subject-matter of my invention comprises a handle made up of two parts or sections indicated at 10 and 11 respectively, the corresponding extremities of which are pivoted as at 12. The section 11 of the handle is hinged as at 13 so that it can be moved toward and away from the section 10 for a purpose to be hereinafter described. The section 10 also has secured thereto flanges or side members 14 which are considerably shorter than the length of this section.

Pivoted between the sections of the handle and associated with the pivot 12 thereof, is a cutting element 15 herein illustrated as an ax. The opposed sides of the ax are recessed to accommodate the adjacent ends of the handle sections, and thus define shoulders 16. The pivot 12 is hollow so that a flexible element such as a chain or the like (not shown) may be used for carrying the tool in a convenient manner. One end of the ax 15 is provided with a claw 17 by means of which tacks, nails or the like may be extracted. The hinged section 11 of the handle is also provided with a lip 18 project-

ing from one side and normally bearing against the adjacent edge of the ax 15 for the purpose to be hereinafter described.

In the normal position of the parts the ax or hatchet 15 is arranged between the respective sections of the handle longitudinally thereof as shown in Fig. 1, while the sections of the handle are arranged parallel. When use of the hatchet is desired, the section 11 of the handle is swung upon its hinge away from the section 10, to space the lip 18 from the ax 15, and subsequently turned upon the pivot 12 through a right angle and swung down on its hinge 13 to a plane substantially parallel to the section 10, as shown in Fig. 4, in which position one end of the lip 18 bears against the adjacent edge of the ax 15. When the section 11 is returned to its normal position in parallelism with the section 10, the ax 15 is swung upon its pivot to project perpendicularly from the handle in its active position as shown in Figs. 2 and 3. In this position of parts the adjacent edges of the handle sections bear against the shoulders 16 of the ax, while the lip 18 is in contacting engagement with the adjacent edge of the ax, and in this manner the latter is held immovable in its given position.

Any suitable means may be employed for holding the respective sections of the handle operatively associated, but as shown in this specific instance the section 11 is provided with projections 19 adapted to be engaged by the cams or locking latches 20 which are rotatably mounted in recesses which are formed in the sides of the handle as shown. The construction is such that the section 11 can be very easily locked with the section 10, or separated therefrom to permit of its use in the manner just described for projecting the ax to its active position. It will be observed that the elements 20 are cam shaped upon their inner faces and that they project beyond the member 11, so that they can be engaged by the operator's fingers and rotated to engage the projections 19. Subsequent to the use of the ax, the section 11 of the handle is again swung upon its hinge 13 to a position at right angles to the section 10 and then turned upon the pivot 12 and swung down on its hinge so that the lip 18 is disposed to engage the opposite edge of the ax for the purpose of returning the same to normal position when the section 11 is swung down to its normal position into parallelism with the section 10.

Arranged between the sections of the handle is a cutting element 25 in the nature of a blade, and one end of the same defines a screw-driver 26 having a notch 27 to permit the use of this element in the capacity of a bottle-cap remover. The cutting element is secured to a resilient plate 28 by means of a headed fastening element 29, which allows the blade 25 to be swung upon the plate for a purpose to be presently described. The resilient plate is longitudinally slotted as at 30 and receives a headed pin 31 carried by the section 10 of the handle, this pin limiting the sliding movement of said plate in opposite directions. The section 10 of the handle is provided with spaced openings 32 and 33 respectively, and these openings alternately receive the head of the fastening element 29 to hold the plate and said cutting element against sliding movement in either of its adjusted positions. Normally the cutting element 25 is wholly disposed between the sections of the handle, and the head of the fastening element 29 positioned in the opening 32. However, when the cutting element is projecting beyond the handle, the head of the element 29 is received in the opening 33. As shown in Fig. 2 the cutting element is projected for use as a screw-driver and bottle-cap remover, while in Fig. 3 the opposite end of the cutting element is projected for use as a knife blade. In order to project either end of the cutting element 25 beyond the handle, the said element is swung upon its pivot 29. It is of course understood that the hinged section 11 of the handle is separated from the section 10 in order to permit access to be had to the cutting element 25, and subsequent to the adjustment of this element the section 11 is locked in its normal position.

While it is believed that from the foregoing description the nature and advantages of the invention will be readily apparent, I desire to have it understood that I do not limit myself to what is herein shown and described, and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What I claim is:—

1. A tool comprising a two-part handle, a tool proper pivoted between said parts adjacent one end of the handle and adapted to be normally arranged parallel with the latter, one part of said handle being hinged and pivotally mounted with respect to the other part, means for projecting said tool from between the respective parts of the handle, when said movable part is swung upon its pivot in one direction, and means for holding said parts of the handle parallel.

2. A tool comprising a two-part handle, one part being hinged and pivotally mounted with respect to the other part, a tool proper pivoted between said parts, and means on said movable part for projecting the tool from the handle when said part is moved in one direction, and for returning said tool to its normal position upon movement of said part in an opposite direction.

3. A tool comprising a two-part handle, one of said parts being movable with respect

to the other, a tool pivoted between the parts, means for moving said tool from between the handle and for returning it to normal position when said part of the handle is moved in opposite directions, and means for locking said parts of the handle in parallel relation.

4. A tool of the character described comprising a two-part handle, a tool pivoted between said parts, one of said parts being pivoted with respect to the other, a lip carried by said movable part of the handle and adapted to alternately engage the opposite sides of the tool to project the latter from the handle and to return the same to normal position when said pivoted part of the handle is moved in opposite directions.

In testimony whereof I affix my signature.

CHARLES H. RICH.