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Patented Sept. 12, 1899.

J. A. SCHMIDT.

POCKET KNIFE.

(Application filed Mar. 13, 1899.)

(No Model.)

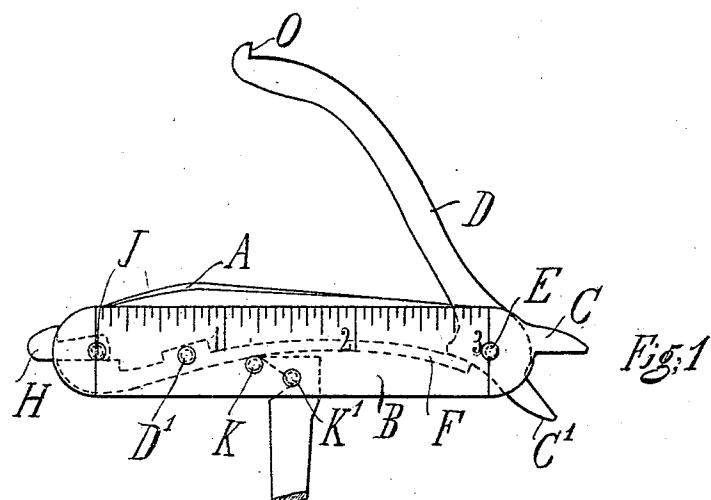


Fig. 1

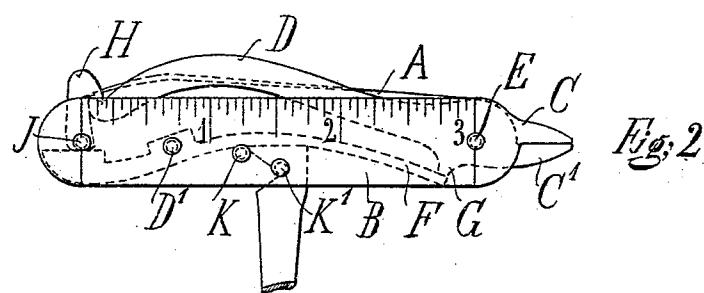


Fig. 2

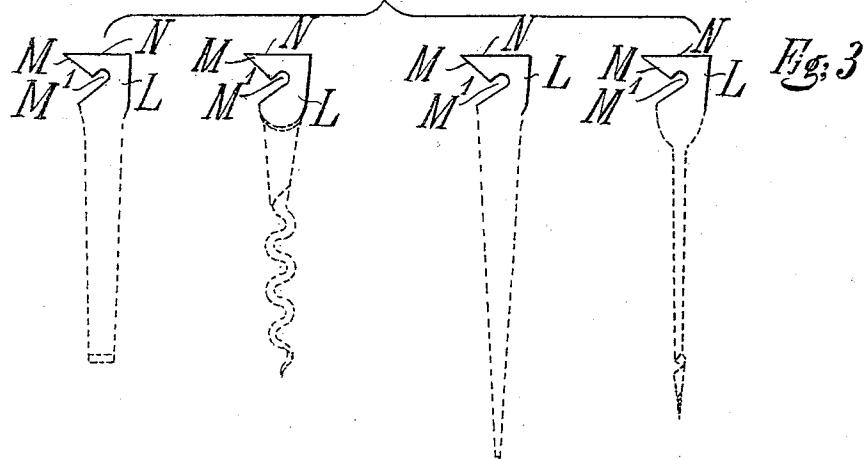


Fig. 3

Witnesses:

*John
O'Conor*

Inventor:

John Albert Schmidt

UNITED STATES PATENT OFFICE.

JACOB ALBERT SCHMIDT, OF SOLINGEN, GERMANY.

POCKET-KNIFE.

SPECIFICATION forming part of Letters Patent No. 632,792, dated September 12, 1899.

Application filed March 13, 1899. Serial No. 708,878. (No model.)

To all whom it may concern:

Be it known that I, JACOB ALBERT SCHMIDT, a subject of the Emperor of Germany, residing at Solingen, in the Province of Rhenish 5 Prussia, Germany, have invented certain new and useful Improvements in Pocket-Knives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in 10 the art to which it appertains to make and use the same.

My invention relates to an improved pocket-knife which is especially intended for artisans, mechanics, gas-fitters, and like work people 15 who have often outdoor work to do, whereby they require various small instruments—such as various knives, pincers, screw-drivers, gimlets, awls, and similar small tools—and my object is to combine these tools with a pocket- 20 knife in such a manner that certain of them—*i. e.*, the usual cutting-blades—are permanently fixed to the knife, whereas others, which are not so regularly used—as, for instance, gimlets, screw-drivers, and corkscrews—can 25 be connected to the knife in an exchangeable manner, so that they can be conveniently fixed thereto or taken off and exchanged for others. One main tool, which, however, must 30 form a permanent fixture of the same, is a set of pincers, the movable shank of which serves indirectly for securely fixing the exchangeable tools.

On the accompanying drawings, Figure 1 shows the new pocket-knife with the pincers 35 open and the spring throwing them open in such a position that the exchangeable tools can be put in place or taken out thereof. Fig. 2 shows the same with the pincers closed and the exchangeable instrument—an awl in 40 the case represented—held so that it cannot be taken out and securely fixed for use; and Fig. 3 shows various tools as examples which can be used.

The handle of my new pocket-knife is by 45 preference made of metal, so that at the same time it can serve as a scale or measuring-ruler.

Like ordinary pocket-knives, my new knife consists of two or more compartments between 50 the two outside covering-plates which form the handle, and separated from each other by intermediate plates. In these compartments

are laid the different cutting-blades, as usual, so that they can be opened and closed by turning them on a pin or rivet, and they are held in either position by the ordinary spring. 55

In Fig. 1, A shows the usual big knife-blade. B indicates the cover or handle plate, which in this case is wholly of metal and provided with a scale to serve as a measuring-rule. At one end one of the plates B ends in a thumb-like projection C, which, together with a similar projection C' of the shank or lever D in the first compartment nearest to the plate B and turning on a pin E, forms a pair of tongs which can be opened and closed, as indicated 60 in Figs. 1 and 2. A spring F, (indicated in dotted lines and placed below the lever D,) held fast in the same compartment of the knife by a pin D' and bearing against a finger G of the lever D, throws this outward 65 when it is not pressed down by hand and held in this closed position, Fig. 2, by a pawl H, held movably on a pin J at the other end of the knife. 70

Below the spring F are arranged two pins 75 K and K'. The pin K serves as an abutment for the spring F, and at the same time, in connection with the pin K', its object is to serve as a support for the exchangeable tools, which are fixed to the knife in the following 80 manner: These tools, as indicated in Fig. 3, are all provided with a flat head L, fitting in thickness exactly into the open space below the spring F in the first compartment of the knife. At one side this head is beveled or 85 tapered, the oblique edge M ending in a recess M' of the width of the pin K'. The upper side N of the head is straight, whereas the other side ends in a suitable tool, as shown in dotted lines in the drawings in the four examples shown. When the tongs are open, the head of any one of these tools is inserted into the knife with its recess M' upon the pin K', its oblique side bearing against the pin K. Then the lever D is pressed down, its finger G 95 pressing down the spring F, so that the lower side of the spring presses upon the side N of the tool-head, and thus holds it firmly and securely in place. The pawl H is then placed over the end of the lever D and is held there 100 also by a catch O at the end of this lever, so that now the tool in the knife stands out per-

pendicularly from the same, Fig. 1, while the knife itself forms a true handle for the respective tool.

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

1. In a pocket-knife, a handle having compartments for the blades, a flat spring attached at one end within said handle, two pins passing transversely through said handle, one obliquely above the other, a tool-head provided with a recess on one side and a projection above said recess, said recess being adapted to fit over the lower of said pins, and said projection to rest against the upper pin, and means for pressing down and fastening the free end of said spring so as to clamp the said tool-head in place, substantially as set forth.
2. In a pocket-knife, a handle, a tool-head adapted to be detachably inserted perpendicularly in said handle, a flat spring in said handle above said tool-head, and a lever adapted to depress one end of said spring and thus clamp the tool-head in position, substantially as set forth.
3. In a pocket-knife, a covering-plate B having a projection C, a lever D having a finger G at its lower side, a catch O at one end and a projection C' at the other end

forming together with the projection C a set of pincers, a pin E on which said lever turns, a spring F, a pin D' for holding the same, said spring engaging the finger G of the lever, a pawl H for engagement with the catch O in the lever end, pins K and K' passing through the knife in the hollow space below spring F and a tool-head L having a straight top N, an oblique side M and a recess M' fitting upon pin K' so that when the spring F is pressed down the oblique side M rests upon the pin K thereby being connected rigidly to the knife, the whole as described and illustrated and for the purpose set forth.

4. In a pocket-knife, a handle, a projection on said handle forming a pincer-jaw, a lever pivoted in said handle, one end of said lever forming the other pincer-jaw, a flat spring fastened in said handle, and a tool-head adapted to be detachably inserted in said handle and clamped therein by said spring, said lever being adapted to depress one end of said spring to effect said clamping, substantially as set forth.

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

JACOB ALBERT SCHMIDT.

Witnesses:

R. C. JAHN,
OTTO KÖNIG.