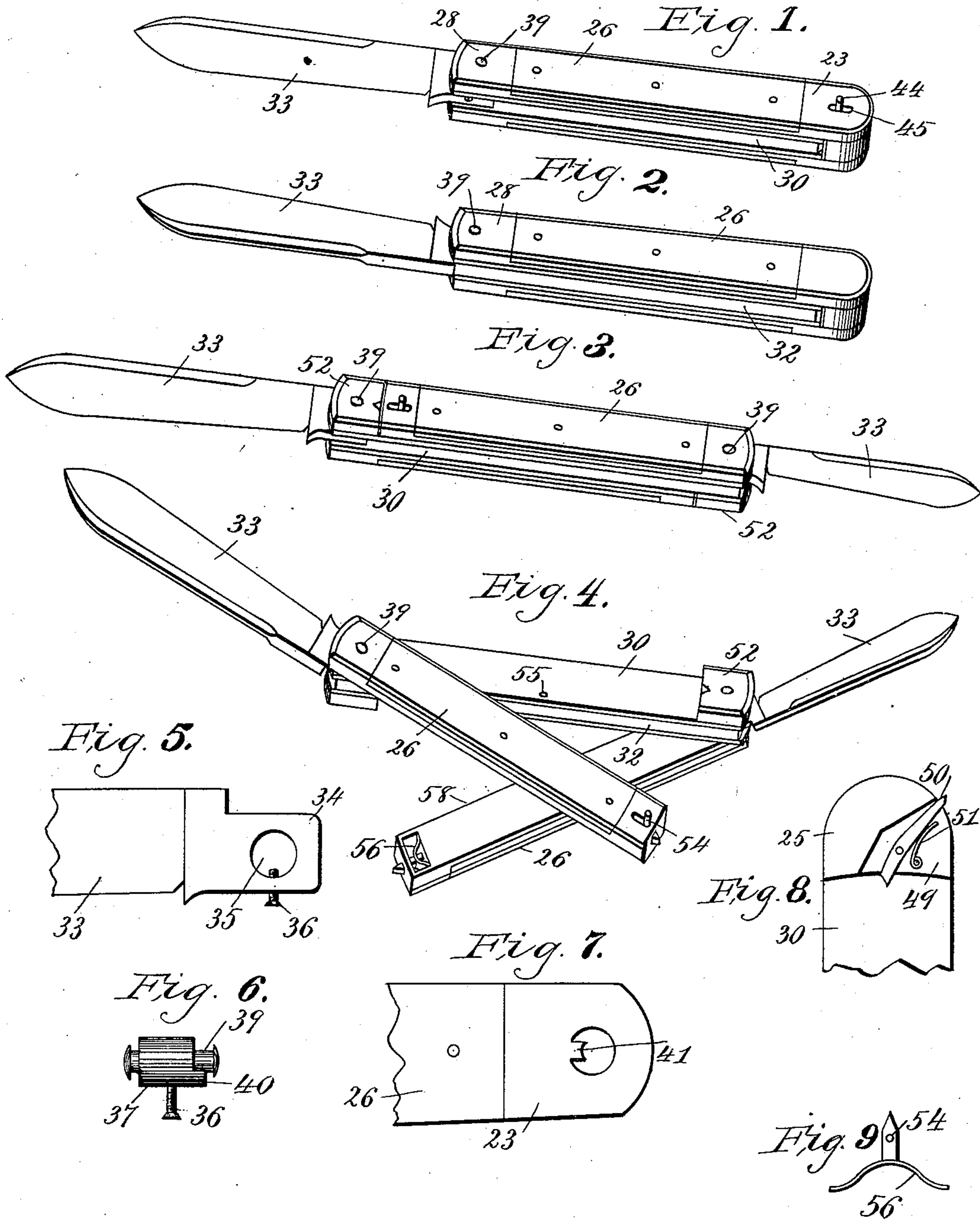


(Model.)

J. C. F. SCHENCK.
POCKET KNIFE.

No. 404,870.

Patented June 11, 1889.



Witnesses:
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Chas Hibbard

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UNITED STATES PATENT OFFICE.

JOHN C. F. SCHENCK, OF MOLINE, ILLINOIS.

POCKET-KNIFE.

SPECIFICATION forming part of Letters Patent No. 404,870, dated June 11, 1889.

Application filed January 10, 1889. Serial No. 296,039. (Model.)

To all whom it may concern:

Be it known that I, JOHN C. F. SCHENCK, a citizen of the United States, residing at Moline, in the county of Rock Island and State of Illinois, have invented a new and useful Improvement in Knives, of which the following is a specification.

My invention relates to that class of pocket-knives consisting of the blade-carrier handle and blade pivotally attached thereto; and the objects of my improvements are, first, to swing the knife-blade upon its pivoted bearing through the leverage of an arm against the blade-sleeve, supported on a blade-rivet; second, to provide means for securing the arm by the side of the blade-carrier handle when not used in swinging the blade, and, third, to apply means for applying my invention to pocket-knives having one or more blades. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view from the front of a single-blade knife. Fig. 2 is a perspective view from the back of the same. Fig. 3 is a perspective view from the front of a knife carrying two blades. Fig. 4 is a perspective view from the back of the same, the blades being partially swung open. Fig. 5 is a view of the shank of the knife-blade and its shoulders. Fig. 6 is a view of the blade-sleeve and blade-rivet. Fig. 7 is a side view of the end of the arm, showing the device for engaging the blade-sleeve; and Figs. 8 and 9 are detail views of spring-actuating catches for securing the arm and blade-carrier handle side by side.

Similar figures refer to similar parts throughout the several views.

The blade-carrier handle is composed of the back-spring 32, having pendently attached at each of its sides the parallel side pieces 30, and in the construction of a single-blade knife I prefer to curve or bend one end of the back-spring downward, constructing it into an end piece at one end of the side pieces, and I also prefer to do this in constructing a knife having more than one blade-carrier handle, arranged to swing upon the same bearing, as hereinafter described.

23 represents arms, one or more, one of which is pivotally attached by the side of a

side piece 30, and which may be of such length or form as may be found suitable, and in a knife carrying but one blade may, when there are two arms, be connected by the ends not pivotally attached to the side pieces 30, as at 25, so as to straddle such side pieces.

26 is an ornamental covering, of horn or other material, which may be attached to each arm 23, upon its outside surface.

28 is a ferrule, which may also be attached at the pivotal end of arm 23, and which is provided with an aperture in which the rivet 39 may extend, its end headed or secured outside thereof.

33 is a knife-blade, with its shank 34 rectangular in form, so as to provide shoulders at its edges, which receive the pressure from back-spring 32, such shank having a central aperture crosswise 35, and also a vertical threaded aperture extending from the exterior surface of the shoulder into the central aperture 35, to accommodate the threaded set-screw 36, through which the blade is attached to the blade-sleeve.

37 is the blade-sleeve, having a longitudinal aperture to accommodate the blade-rivet 39, its outer surface formed for the distance of the width of said shank where aperture 35 is located to fit snugly within such aperture, and outside thereof at one or both sides is formed thereon an engaging surface 40 in circumferential line with a contact engaging surface 41 in arm 23. A threaded aperture is made from the exterior of the sleeve through it into its interior longitudinal aperture to accommodate said set-screw 36.

Side pieces 30 of the blade-carrier handle have suitable apertures in line crosswise to support the blade-rivet 39 and blade-sleeve 37 upon such rivet.

When not in the act of swinging the knife-blade, I connect the blade-carrier handle and arm or arms together side by side lengthwise by means of a spring-actuated bolt engaging in a notch. When the arms are joined by the end piece 25 at their non-pivotal ends, I insert in the inner surface of such end piece in a slot a spring-actuated bolt and handle 44, which bolt, by means of such spring, automatically enters a registering-notch in the non-pivotal end of the blade-carrier handle. Another form may be used by cutting out the

part 25, as at 49, and securing therein by a pin the bar 50, with a spring 51 to swing its inner end into engagement with a notch in the non-pivotal end of the blade-carrier handle. The operator by forcing the bolt or bar against its spring disengages it from the notch, and pressure from the back-spring against the shoulder upon the shank of the blade swings the blade-carrier handle sufficiently out from between the straddling arms, so the operator may easily continue the operation to swing the knife-blade into an operative position. When a single arm 23 is used, or where there are two arms not connected, I prefer to attach a ferrule 52 at the end of side piece 30 on the same side and at the opposite end to which the operative arm is pivotally attached, and form a notch or slot in the inner end of such ferrule, and at the free end of such arm to attach a bolt and handle 54 against an actuating-spring 56, which bolt registers with such slot or notch, and the operator by pressing such bolt against its spring disengages the same from the notch or slot, so that said arm is free to swing upon its bearing.

A knife carrying two blades may be constructed by supporting two blade-carrying handles upon the same pivot, with the arms disconnected at their non-pivotal ends. A knife may be constructed carrying two blades in the same blade-carrying handle, the arms disconnected and each operating separate blade-sleeves, and in which case I prefer to centrally pivot the side pieces to the back-spring by a single pivot 55 and attach ferrule 52 at the end of side piece 30 on the same side and at the opposite end to which the operating-arm is pivotally attached. The blade-sleeve, side pieces, and operating arm or arms are secured together by the rivet 39, the ends of which are headed or otherwise arranged to secure these parts in working position.

In a blade-carrying handle provided with a single blade, when such blade is closed within the handle, the operator to open the blade to its working position swings such handle upon its bearing with the blade therein until the handle is extended in a line from the arm, and, continuing the swing of the handle inward to the arm, the engaging surface 41 of the arm by contact with the engaging surface 40 of the sleeve prevents such sleeve from rotating, holding it and its blade stationary, while the handle swings inward lengthwise by the side of the arm and connects itself therewith by the spring-actuated bolt or arm, and pressure from the back-spring is then exerted upon the shoulder of the shank of the blade. A reverse movement closes the blade.

In a blade-carrying handle provided with two blades, when a blade is closed within the handle, the operator to open such blade to its operative position swings the operative arm to a position in line with the handle, the blade remaining within such handle, and, continuing the swing of the arm inward to the handle, the engaging surface 41 of the arm comes

in contact with the engaging surface 40 of the sleeve and rotates such sleeve, swinging its blade out of the handle until the blade is in its operative position in line with the handle and the arm lengthwise by the side of the handle, where it connects itself therewith by the spring-actuated bolt, and pressure from the back-spring is then exerted upon the shoulder of the shank of the blade. A reverse movement closes the blade.

Many modifications and changes may be made without departing from the scope of my invention. The blade and sleeve can be integral. The cross-perforation through the blade-shank can be of irregular form, the sleeve formed to fit the same, and thus avoid the use of the set-screw. The sleeve can pass through both of the side pieces, or one of them, or neither of them. The engaging surface of the sleeve can be changed in form and position and can be upon one or both ends of the sleeve. One arm can be used, or two. One or both may have engaging surfaces to operate with the engaging surface on the sleeve. Such arms may be supported upon the sleeve, or the rivet, or in the side pieces. The form and appearance of the arm may be changed, and yet perform the same function, and many other changes may be made which will readily suggest themselves to the mind of a skilled mechanic.

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

1. In a pocket-knife having a back-spring with pendent side pieces attached thereto, a blade-rivet supported crosswise in such side pieces, and a knife-blade having a shank provided with shoulders, the combination of said blade supported upon a sleeve through its shank, such sleeve supported on said blade-rivet, an engaging surface upon said sleeve, and an arm pivotally attached to a side piece provided with an engaging surface in circumferential line with the engaging surface on said sleeve, substantially as described.

2. In a pocket-knife having a back-spring with pendent side pieces attached thereto, a blade-rivet supported crosswise in such side pieces, and a blade having a shank provided with shoulders, the combination of said blade supported upon a sleeve through its shank, such sleeve supported upon said blade-rivet, an engaging surface upon each end of said sleeve, and two parallel arms connected together at one end, the opposite ends of each pivotally attached to one of said side pieces, and said arms provided with engaging surfaces in circumferential line with the engaging surfaces on said sleeve, substantially as described.

3. In a pocket-knife having a back-spring with pendent side pieces attached thereto, a blade-rivet supported crosswise in said side pieces, and a blade having a shank provided with shoulders, the combination of said blade supported upon a sleeve through its shank, such sleeve supported upon said blade-rivet,

an engaging-surface upon said sleeve, and an arm pivotally attached to a side piece, such arm provided with an engaging surface in circumferential line with the engaging surface on said sleeve and with a spring-actuated bolt registering with a notch in said side piece when such arm and side piece are side by side lengthwise, substantially as described.

4. In a pocket-knife, the combination of the back-spring 32, the side pieces 30, the knife-blade 33, with its shank 34 and aperture 35, the blade-sleeve 37 and engaging surface 40, the set-screw 36, the blade-rivet 39, the arm 23, and engaging surface 41, substantially as described.

5. In a pocket-knife, the combination of the back-spring 32, the side pieces 30, the rivet 39, the knife-blade 33, its shank 34 and aperture 35, the blade-sleeve 37, with engag-

ing surface 40, the set-screw 36, the arm 23, and end pieces 25, such arms provided with the engaging surface 41, substantially as described.

6. In a pocket-knife, the combination of the back-spring 32, side pieces 30, rivet 39, knife-blade 33, its shank 34 and aperture crosswise therein, blade-sleeve 37 and engaging surfaces thereon, arms 23 and connecting end piece 25, such arms provided with engaging surfaces in circumferential line with the engaging surfaces on said blade-sleeve, a spring-actuated bar attached to the end piece 25, and an engaging notch in the blade-carrier handle, substantially as described.

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