Dec. 11, 1923. 1,477,407

R. WHITCOMB ET AL

HANDLE FOR DETACHABLE KNIFE BLADES

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Fig. 1

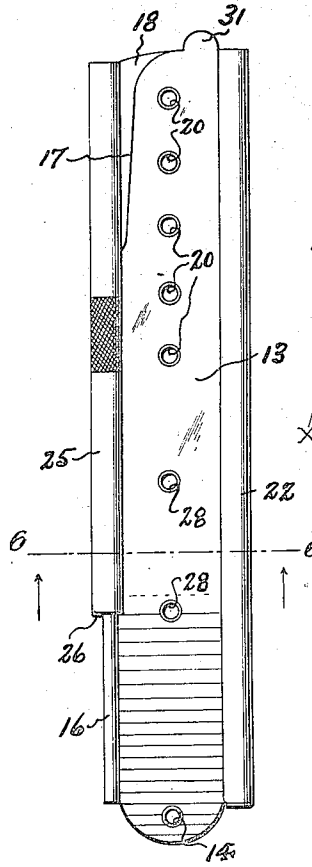


Fig. 2

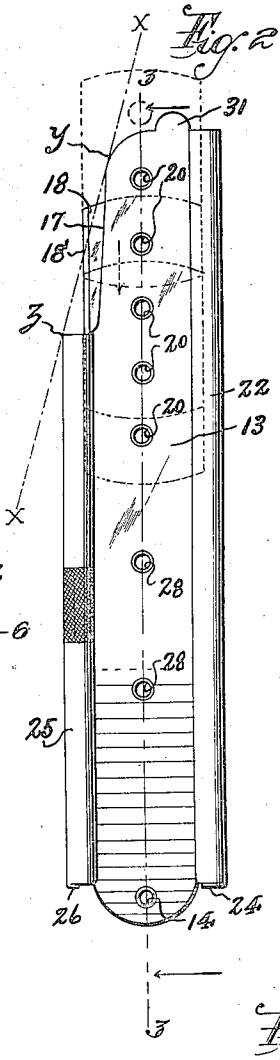


Fig. 3

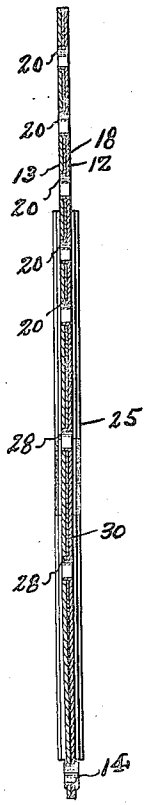


Fig. 6

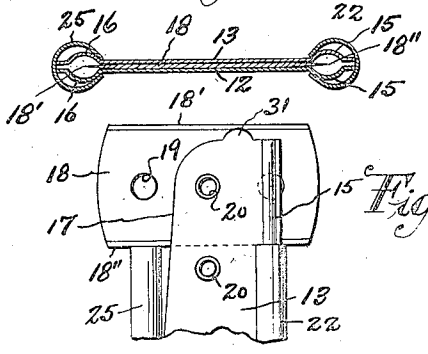


Fig. 11

Fig. 9

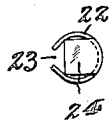
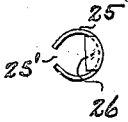


Fig. 10



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Fig. 4

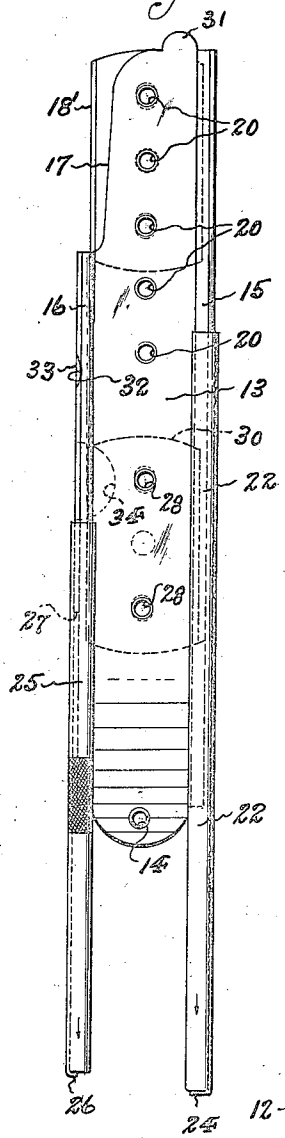


Fig. 5

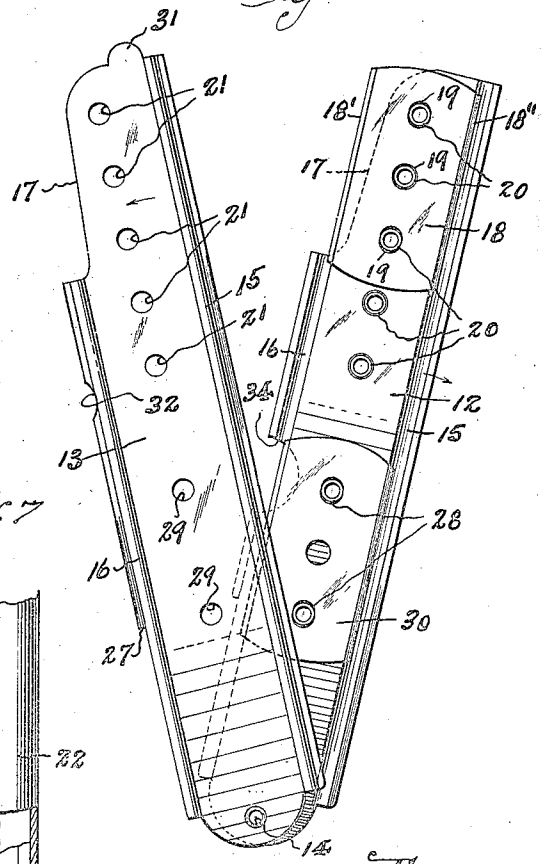


Fig. 7

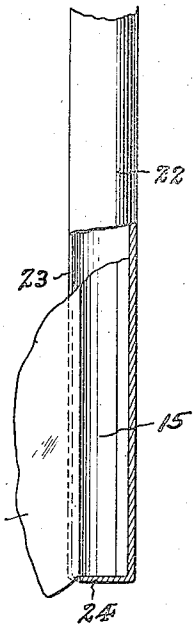
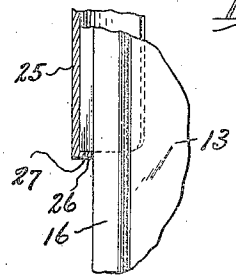


Fig. 8



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Patented Dec. 11, 1923. 1,477,407

UNITED STATES PATENT OFFICE.

RUSSELL WHITCOMB, OF NEW YORK, N. Y., AND FREDERICK GOERTZ, OF NEWARK, NEW JERSEY, ASSIGNORS TO AUGUST GOERTZ & CO., A CORPORATION OF NEW JERSEY.

HANDLE FOR DETACHABLE KNIFE BLADES.

Application filed June 23, 1922. Serial No. 570,302.

To all whom it may concern:

Be it known that we, RUSSELL WHITCOMB and FREDERICK GOERTZ, citizens of the United States, residing at New York and Newark, in the counties of New York and Essex and States of New York and New Jersey, respectively, have invented certain new and useful Improvements in Handles for Detachable Knife Blades; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to improvements in knife handles; and the invention has reference, more particularly, to an improved novel handle and holder which serves to detachably and adjustably hold a razor blade, to thereby furnish a convenient cutting implement for various purposes.

The invention has for its several objects; first, to provide a novel holder or handle having means whereby a razor blade, such, for example, as that of the Gillette type, may be adjustably interlocked therewith in various positions so as to expose and project the cutting edges to the best advantage; second, to provide such a holder or handle not only with means for adjustably attaching the blade in operative positions, but also to provide storage or carrying means for extra blades reserved for future service; third, to provide in such a handle or holder means for strongly interlocking its parts together, so as not only to firmly and efficiently grip and reenforce the thin blades, but so as to provide a sure, safe and comfortable hand grip for the user when manipulating the knife; fourth, to provide adjustable cover means for enclosing the edge of the operative blade, when the same is not in use, and also, subject to its adjustment relative to the operative blade to provide a guide or control against false cutting, slipping, or over-deep penetration of the blade when making incisions.

Other objects of this invention, not at this time more particularly enumerated, will be clearly understood from the following detailed description of the same.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side or face view of the handle or holder with operative blade adjusted to one position, but protected by the adjustable guard, which is shown in closed position; Figure 2 is a similar view, showing the adjustable guard retracted to open position, to expose an edge of the operative blade ready for use; Figure 3 is a longitudinal vertical section, taken on line 3—3 in Figure 2; Figure 4 is a side or face view showing the method of removing the interlocking guards from the main body portions of the handle or holder to permit separation of the latter for adjustment, attachment or insertion of the blades; Figure 5 is a similar view showing the manner of separating said main body portions of the handle or holder; Figure 6 is a tranverse section, taken on line 6—6 in Figure 1, and drawn on an enlarged scale; Figure 7 is a fragmentary section, enlarged, showing the stop of the back guard member; and Figure 8 is a similar view showing the stop of the adjustable guard when in closed position; Figures 9 and 10 are respectively end views of the back guard member and the adjustable guard; and Figure 11 is a fragmentary side face view of the handle illustrating another way of mounting the operative blade to provide four exposed cutting points or corners, this view showing the parts on a somewhat reduced scale.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to said drawings, the novel construction of handle or holder comprises, a pair of main body portions 12 and 13, which are formed out of flat sheet metal, such as steel, brass or the like, and which are placed face to face, and preferably hingedly secured together at their lower ends by a pivotal connection, such as the rivet 14, although it is not essential, nor do we

limit ourselves to a pivoted arrangement, since such connection may be omitted if desired. Each body portion 12 and 13 is provided at or adjacent to its back edge, and longitudinally parallel to the latter, with an outwardly pressed bead or longitudinal rib 15, preferably substantially half round in cross section. In like manner, each body portion 12 and 13 is provided at or adjacent to its front edge, and longitudinally parallel thereto, with a similar outwardly pressed bead or longitudinal rib 16, also preferably substantially half round in cross section. The front edge of each body portion 12 and 13, toward its free end is cut away, as at 17, to expose one cutting edge of blade when the same is mounted in operative relation to and between the free ends of said body portions. The blade shown in the drawing is a razor blade 18 of the Gillette type, which is provided with double edges 18' and 18'', and is further provided with the centrally disposed longitudinally alined holes or openings 19, although it will be understood, that any blade having either a single or double edge, and having centrally and longitudinally disposed holes or slots may be employed.

The main body portion 12 is provided with a plurality of inwardly projected centrally and longitudinally disposed studs 20 extending downwardly from its free end preferably spaced to correspond to the spacing of the holes or openings of the blade 18. As shown in the drawings there are five of such studs 20, although more or less may be provided. The main body portion 13 is provided with a plurality of similarly disposed perforations 21 to match said studs 20. The holes or openings 19 of the blade 18 may be selectively engaged with a desired group of said studs 20 to thereby position the blade in any one of several longitudinally adjusted positions, as is indicated in Figures 2, 4 and 5, to thereby expose more or less of a cutting edge of the blade at the outer front edge of the holder. When the blade is thus arranged in a desired position, the body portions 12 and 13 are closed together so that the free ends of the studs 20, beyond the blade engaged therewith, enter the perforations 21 of the body portion 13, thus interlocking the blade 18 between the inner faces of the body portions 12 and 13 against lateral, longitudinal or turning displacement. The reference character 22 indicates a back guard and body portion interlocking device of substantially tubular shape with a longitudinal opening or slot 23 at one side, and a stop lug 24 which is bent transversely across the lower open end of the back guard, so as to engage the lower end of the closed body portions 12 and 13. The upper end of the back guard is open. In applying the backguard the same is slipped telescopically over the beads 15 of the body portions 12 and 13 so as to straddle the same, thus not only interlocking the latter against separation, but also, by reason of its rounded contour, providing a comfortable grip when the handle is held in the hand of the user.

The reference character 25 indicates an adjustable guard which is adapted to be associated with the front edges of the body portions 12 and 13. This front or adjustable guard is also of substantially tubular shape, with a longitudinal opening or slot 25' extending along one side, and a stop lug 26 at its lower end which is bent transversely there-across. The adjustable guard thus provided is shorter than the back guard, so that when telescopically engaged over the beads 16 of the body portions 12 and 13, it may be adjusted to various longitudinal positions thereon. In the main the adjustable guard is primarily adjustable to two positions, i. e., an upwardly or outwardly moved position, wherein it extends over and encloses the exposed cutting edge of the operatively related blade 18, as shown in Figure 1, thus protecting said edge when the knife is not in use, and rendering it perfectly safe and convenient to carry the knife about upon the person, in pockets, or the like. To determine the closed position of said adjustable guard, the lower portion of the front edges of the body portions 12 and 13 are cut away for a suitable distance, so as to provide a properly disposed stop shoulder 27, which is engageable by the stop lug 26. For convenience in manipulating, and to prevent the fingers slipping away therefrom, and into possible injurious contact with the cutting edge of the blade 18, the exterior surface of the adjustable guard may be roughened by knurling or similarly treating the surface. To expose the cutting edge of the blade 18 for use, the adjustable guard is merely slid downward, as shown in Figure 2. Another purpose served by the adjustable guard 25 is to provide a guide for governing the depth of a direct cut or incision. To this end the guard may be slipped down to any point intermediate and up to its fully opened position, thereby varying the inclination of an imaginary line x—x (as shown in Figure 2) so that a desired depth of knife edge is permitted to project beyond such line for cutting operations. In such case the point y of the body portions and the point z constituted by the upper end of the guard furnish guiding points limiting the depth of penetration of the blade, which will be understood from an inspection of said Figure 2 of the drawings.

Another advantage our novel construction of handle or holder for cutting blades provides is that the same is also designed to fur-

nish storage or carrying space for a reserved blade or blades. To this end the body portion 12 is provided, toward its lower end with additional studs 28, and the body portion 13 with additional matching perforations 29, with which may be engaged a reserved blade 30, thus disposed and stored intermediate the body portions 12 and 13 below the operative blade. Of course, provision for one or more blades may be made in this manner, according to the length of the handle or holder, and the storage space thus made available. It will be apparent that the extra studs 28 serve especially well to hold the extra blade or blades against displacement, but since the space in which said blades are stored is enclosed by the guards 22 and 25, there is no danger of the extra blades escaping from stored position when the body members are closed together and interlocked by the guards, and consequently the extra studs 28 and matching perforations 29 may be omitted, if desired, and the extra blade or blades merely enclosed between the interlocked body portions.

When the lower ends of said body portions 12 and 13 are pivotally secured together, as above suggested, it is desirable to provide means whereby the same may be sprung apart from each other to separate the studs of the one from the perforations of the other, and to this end we provide, at the outer free end of the body portion 13 an outwardly projecting finger piece or lug 31, and at its front edge in convenient location, a cutaway portion or notch 32 which will expose the underlying edge of the body portion 12, as at 33 in Figure 4. By this means the user may, when the guards 22 and 25 are removed, lift up by the finger piece or lug 31 the body portion 13, and press downward, through the notch 32, the exposed edge 33 of the body portion 12, thus springing the latter outwardly in one direction and pulling the body portion 13 outwardly in the opposite direction, to thereby attain the desired separation of the studs from the perforations, and consequently permitting the rotation of the respective body portions 12 and 13 in opposite directions around their pivotal interconnection, to slide the same apart to give access to the blades for purposes of insertion, replacement or adjustment.

In order to permit more easy grasping and dislodgment of the stored or extra blade without danger of cutting the fingers, when it is desired to use the same, the body portion 12 may be provided with one or more notches, as 34, through which the stored blade may be grasped flat-wise by the fingers, and thus readily removed from the handle.

Referring now to Figure 11 of the drawings, it will be noted, that the operative blade may also be positioned cross-wise of the free end of the handle or holder, thus exposing four cutting corners. In this position the center opening 19 of the blade is engaged with the outermost stud 20, and then the guards 22 and 25 are moved up against the inner edge thus securely locking the blade in the described position. In this manner, by adjustment of the guards respectively up or down, the blade thus fixed may be given an inclination to either the left or right, or the same may be disposed at right angles to the longitudinal axis of the holder. This arrangement of the blade offers many advantages for carrying on cutting operations requiring either a pull, push, slash or snip, such, for example, as in fruit picking and similar operations, or for use as a scraper.

From the above description it will be very apparent, that our present invention provides a holder or handle for cutting blades, which not only offers a means for firmly and securely holding the same in a wide variety of adjusted positions, and thus conveniently positioned to serve a wide variety of uses, but at the same time provides a holder or handle which may be safely carried about, which will retain and store a reserve of blades, and which, although cheap to manufacture, offers a very compact and complete structure in furtherance of the ends for which it is designed.

We are aware that some changes may be made in the several arrangements and combinations of the various devices and parts, as well as in the details thereof, without departing from the scope of the invention as above described, and as defined in the appended claims. Hence, we do not limit our invention to the exact arrangements and combinations of the various devices and parts as described in the foregoing specification, nor do we limit ourselves to the exact details of the construction of said parts as illustrated in the accompanying drawings.

We claim:—

1. A handle for detachable perforate cutting blades, comprising a pair of body portions arranged face to face, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously longitudinally adjusted cutting position, the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, and means slidably cooperating with the longitudinal edges of said body portions to operatively interlock the same together in holding relation to the cutting blade.

2. A handle for detachable perforate cut-

ting blades, comprising a pair of body portions arranged face to face, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously adjusted cutting position the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, and means slidably cooperating with the longitudinal edges of said body portions to operatively interlock the same together in holding relation to the cutting blade, one of said latter means being longitudinally adjustable to a blade exposing or enclosing position.

3. A handle for detachable perforate cutting blades, comprising a pair of body portions arranged face to face, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously adjusted cutting position, the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, and means slidably cooperating with the longitudinal edges of said body portions to operatively interlock the same together in holding relation to the cutting blade, one of said latter means being longitudinally adjustable to a blade exposing or enclosing position, said body portions when closed together providing a storage space for extra cutting blades below the operative blade engaging studs.

4. A handle for detachable perforate cutting blades, comprising a pair of body portions arranged face to face, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously adjusted cutting position, the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, and means slidably cooperating with the longitudinal edges of said body portions to operatively interlock the same together in holding relation to the cutting blade, said body portions when closed together providing a storage space for extra cutting blades below the operative blade engaging studs, one of said body portions having additional studs projecting into said storage space to engage and hold the blades stored therein.

5. A handle for detachable perforate cutting blades, comprising a pair of body portions arranged face to face, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously adjusted cutting position, the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, and means slidably cooperating with the longitudinal edges of said body portions to operatively interlock the same together in holding relation to the cutting blade, one of said latter means being longitudinally adjustable to a blade exposing or enclosing position, said body portions when closed together providing a storage space for extra cutting blades below the operative blade engaging studs, one of said body portions having additional studs projecting into said storage space to engage and hold the blades stored therein.

6. A handle for detachable perforate cutting blades, comprising a pair of substantially flat body portions arranged face to face, the longitudinal edge portions of said body portions having longitudinal outwardly pressed beads, each body portion being cut away at its upper forward edge to expose a blade edge arranged between said body portions, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously adjusted cutting position, the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, a tubular longitudinally slotted back guard telescopically slidable over the beads of the rear edges of said body portions, and a tubular longitudinally slotted adjustable guard telescopically slidable over the beads of the forward edges of said body portions, said latter guard being longitudinally adjustable to uncover or enclose the cutting edge of a blade operatively attached to said handle.

7. A handle for detachable perforate cutting blades, comprising a pair of substantially flat body portions arranged face to face, the longitudinal edge portions of said body portions having longitudinal outwardly pressed beads, each body portion being cut away at its upper forward edge to expose a blade edge arranged between said body portions, one of said body portions having adjacent to its free end a plurality of inwardly projecting studs with which a perforate blade may be selectively engaged for variously adjusted cutting position, the other of said body portions having a corresponding plurality of perforations to receive the ends of said studs, a tubular longitudinally slotted back guard telescopically slidable over the beads of the rear edges of said body portions, and a tubular longitudinally slotted adjustable guard telescopically slidable over the beads of the forward edges of said body portions, said latter guard being longitudinally adjustable to uncover or enclose the cutting edge of a blade oper-

atively attached to said handle, said body portions when closed together providing a storage space for extra cutting blades below the operative blade engaging studs, and one of said body portions having additional studs projecting into said storage space to engage and hold the blades stored therein.

In testimony, that we claim the invention set forth above we have hereunto set our hands this 20th day of June 1922.

RUSSELL WHITCOMB.
FREDERICK GOERTZ.

Witnesses:
GEORGE D. RICHARDS,
FRED'K C. FRAENZEL.