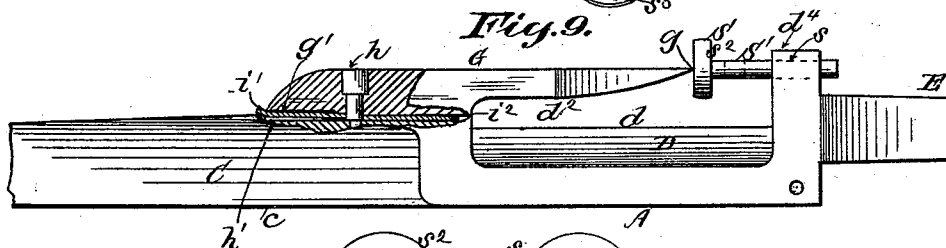
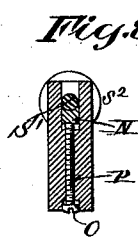
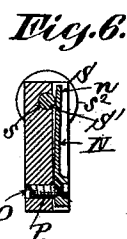
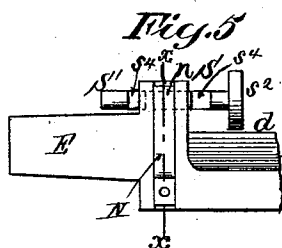
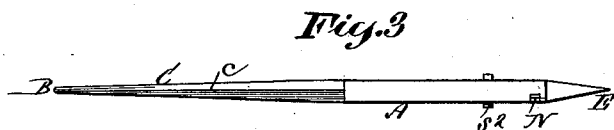
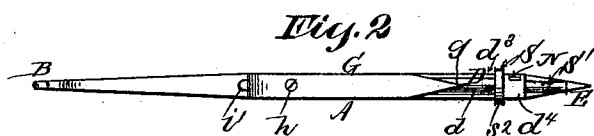
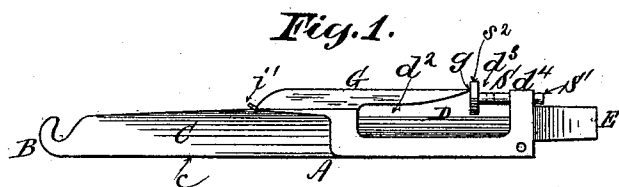


(No Model.)

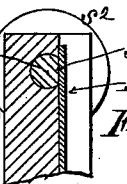
A. A. LOW.
COMBINATION POCKET IMPLEMENT.

No. 464,140.

Patented Dec. 1, 1891.



Witnesses:
D. W. Gardner
G. J. Malt



Inventor:
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UNITED STATES PATENT OFFICE.

ABBOT AUGUSTUS LOW, OF BROOKLYN, NEW YORK.

COMBINATION POCKET IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 464,140, dated December 1, 1891.

Application filed April 11, 1891. Serial No. 388,452. (No model.)

To all whom it may concern:

Be it known that I, ABBOT AUGUSTUS LOW, a citizen of the United States, residing in the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Combination Implements, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

My invention relates to implements adapted to the various ordinary requirements of everyday use; and the device, in which various functions are embodied, is especially designed to be carried upon the person, although equally applicable as an ordinary tool, while affording an aggregation of separate implements or devices.

My present improvements relate to the form of implement set forth in my application, Serial No. 381,158, filed February 12, 1891, in which the cutting-blade is protected by a swinging guard, which is also adapted for use as a nail-cleaner and for analogous uses in which a pointed implement is desirable, the said guard extending only a portion of the length of the cutting-blade, which it protects, so as to leave an entrance to the space in front of the cutting-edge.

In my concurrent application filed, the leading feature consists, primarily, in an adjustable shield or protector, by which the opening to the cutting-blade may be regulated in width and by which the said blade and the point of its guard may be positively shielded from unintentional contact with extraneous objects when desired, and, secondarily, in the special construction and arrangement of a flanged screw engaging with a stationary part of the implement to constitute the adjustable shield and protector above referred to.

My present invention relates to a special form, construction, and arrangement of the adjustable shield or protector, in which the screw is discarded; and the invention consists, primarily, in an adjustable sliding shield or guard, which is held in any prescribed position by a friction-clamp, substantially as hereinafter set forth, and, secondarily, in forming the said sliding guard in such manner that it may be readily detached and used as a seal for impressing wax, &c. This new shield or

protector has several functions. It may be used to entirely close the entrance to the slot or space between the cutting-edge and its parallel guard, at the same time effectually protecting the point of the latter, or it may be used to regulate the width of the entrance to the cutting-blade. Its main utility, however, consists in the protection it affords to the point of the parallel guard when the latter is adapted for use as a finger-nail cleaner or other pointed implement which would be otherwise liable, owing to the entrance to the cutter-blade, to stick into and damage objects accidentally brought into contact with it. It is to be understood that the parallel guard for the cutting-blade, the point of which guard my adjustable shield is designed to protect, may be permanent in construction, forming part of the body of the implement, instead of the swinging guard herein shown and described, which is the leading subject of my prior application, Serial No. 381,158, hereinbefore referred to. In fact, the combination and arrangement of the cutting-blade, parallel guard, and adjustable shield are new, valuable, and operative independent of the particular aggregation of implements in a single device herein shown and described, since the blade, guard, and shield are related to each other in functions, and may be incorporated alone in a single device or combined with other special features of construction without varying the essential features of my invention in this respect.

In the accompanying drawings, Figure 1 is a side elevation of my improved implement, the entrance to the cutting-blade being closed. Fig. 2 is an elevation of one edge of the same, with the entrance to the cutting-blade open; Fig. 3, an elevation of the opposite edge of the implement. Fig. 4 is an elevation similar to Fig. 1, showing the knife-guard swung back and the shield retracted. Fig. 5 is a side elevation of one end of the implement upon an enlarged scale; Fig. 6, a transverse section upon plane of line *x x*, Fig. 5; Fig. 7, an isometrical view of the protector removed; Fig. 8, a view similar to Fig. 6, showing a modification in the form and arrangement of the frictional clamp for holding the sliding protector against unintentional movement in either direction. Fig. 9 is an elevation upon

the enlarged scale of the cutting-blade and adjoining portions of the implement, showing the sliding shield arranged axially with relation to the point of the parallel guard. Fig. 10 is a sectional view showing the slide locked against longitudinal movement; Fig. 11, a similar view showing the slide unlocked.

The shank A is formed of a single piece of metal, including the hook B, straight-edge and paper-cutter C, cutting-blade D, and combined wedge and screw-driver E.

In all essential respects the construction and arrangement of the body of the implement are substantially the same as in implements of this character heretofore invented and patented by me, especially resembling the form shown in my concurrent application hereinbefore referred to.

The hook C is designed as a button or lace pull hook for shoes and for analogous uses. The adjoining portion C of the shank A is formed with a straight-edge c, adapted for the use also as a paper-cutter.

The interior blade D is formed in the usual or any convenient way, being preferably countersunk below the level of the sides. A combined wedge and screw-driver E is formed at the other end of the implement.

The interior blade D is provided with the parallel guard G, extending for the greater portion of the length of the cutting-edge d. This guard G may be made solid and rigid with the body A of the implement, if desired, although I prefer to employ the form of pivoted swinging guard hereinbefore referred to as forming the subject-matter of my prior application. It will be seen that a slot d² is virtually formed between the guard G and the cutting-edge d of the blade D, with an entrance d³ between the point g of the guard G and the shoulder d⁴, the said space d³ admitting of the entrance of cord, &c., to the slot d², to be severed by the edge d without exposing the latter to the danger of contact with exterior objects. When the guard G is closed, as shown, and the adjustable shield S is retracted, as shown in Fig. 2, its point g may be conveniently used as a nail-cleaner and for like purposes.

In order that the guard G may be swung out of the way when it is desired to employ the cutting-edge d of the blade D for cutting in any of the various uses to which the blades of pocket-knives are applied, I pivot the said guard G at h to the edge of the shank A. A groove h' is formed in the edge of the shank A, in which a double-ended spring i is situated, both ends i' i² projecting when free slightly beyond the edges of the groove h'. A corresponding groove g' is formed in the under side of the guard G at its rear extremity, into which either one end or the other of the spring i snaps when the guard is turned parallel to the shank in either one direction or the other, as the case may be.

The shield S consists, essentially, in an adjustable slide for either closing the entrance

d³ to the space d² or for regulating the width of said opening. As shown in the drawings, it consists of a bar or pin S', traveling longitudinally with relation to the body of the implement in a socket s, formed in the shoulder d⁴, adjoining the end of the blade D. The head or flange s² of the slide S when the latter is adjusted to close the entrance d³ meets the pointed end g of the guard G and protects the latter from engagement with exterior objects. When the slide is designed to be used as a detachable shield S, as indicated in Fig. 7, I prefer to arrange it axially with relation to the point g of the parallel guard G, as illustrated in Fig. 9, so that the point of contact between them will always be the same and central. By this means the integrity of the intaglio or cameo design s⁵, formed upon or in the face of the head or annular flange s², will always be maintained in so far at least as the point g of the guard G is concerned. Otherwise where the seal is not employed the flange or head s² enables me to keep the projection of shoulder d⁴, in which the socket s is formed, within the line of the outer edge of the guard G, and to thus preserve the symmetry of the device as a whole, since the axial line of the slide S may be arranged below or within the line of the outer edge of the guard G, as shown in the first eight figures, in which case the width and annular form of the flange or head s² always insures a contact of the slide S with the point of the guard G, when the slide S is forced inward to close the opening d³.

The slide S is held in any required position with relation to the point g of the guard G by frictional contact, augmented and regulated by the pressure of a clamp N. This clamp N is preferably in the form of a spring arranged substantially as shown in Figs. 5 and 6, in which it will be seen that the butt of the spring is attached to a screw O, which is adjustable within the tapped female-screw thread P, by which means the pressure of the upper end n of the clamp N against the side of the pin or bar S' may be varied.

In Fig. 8, the clamp N consists of a concave-faced bearing-piece, which is pressed against the under side of the slide S with a greater or less degree of pressure by the set-screw O. In either case the object is to create sufficient frictional contact with the slide S to hold the latter against unintentional movement in either direction longitudinally, while allowing it to be pushed back and forth by hand with comparative ease and rapidity. In this latter respect my present construction is superior to that of the screw-shield described in my last application, Serial No. 388,452, hereinbefore referred to, since the adjustment of the screw is comparatively slow, whereas the slide S may be speedily advanced or retracted by a single movement in the proper direction.

In order to more effectually guard against unintentional longitudinal movement, I form

the cylindrical rod or bar S' on one side with slight depressions s^4 , which coincide with and receive the clamp N when the slide S is either fully advanced or retracted. Thus
 5 when the slide is in either extreme of position by turning it partially upon its longitudinal axis it may be locked or released, as will be understood by reference to the diagrams, Figs. 10 and 11.

10 In my concurrent application, Serial No. 388,224, filed April 9, 1891, I describe and claim a swinging parallel guard and adjustable shield similar to those herein shown, and I do not seek herein to cover such features
 15 broadly.

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

1. The combination, with a cutting-edge, of a parallel guard extending in front thereof
 20 for a portion of the length of the blade, and an adjustable slide for protecting the remaining portion of the blade, substantially in the manner and for the purpose set forth.

2. In an implement substantially such as described, the combination of a pointed projection adapted for use as a nail-cleaner and for analogous uses, and an adjustable slide for protecting the point of the said projection when not in use, said slide being held by frictional contact augmented by spring-pressure,
 25 substantially in the manner and for the purpose set forth.

3. In an implement substantially such as described, the combination of a pointed spur
 35 or projection adapted for use as a nail-cleaner and for analogous uses, and a shield for protecting the point of the said projection when not in use, consisting of a slide arranged adjustably upon the device opposite and with

relation to the said pointed end of the nail-cleaner, &c., for the purpose and substantially in the manner described. 40

4. In an implement substantially such as described, the combination of the interior cutting-blade D, the parallel guard G, extending
 45 in front of the blade D for a portion of its length, and the sliding shield S and clamp N, arranged and operating substantially in the manner and for the purpose set forth.

5. In an implement substantially such as described, the combination of the interior cutting-blade D, a swinging guard G, formed with the point g , and the slide S and clamp N, arranged and operating substantially in the manner and for the purpose described. 55

6. In an implement substantially such as described, the combination of the interior cutting-blade D, parallel guard G, slide S, clamp N, and screw O, arranged and operating substantially in the manner and for the purpose
 60 described.

7. In an implement substantially such as described, the combination of the interior blade D, parallel guard G, slide S, formed with the notches s^4 , and the clamp N and
 65 screw O, arranged and operating substantially in the manner and for the purpose described.

8. In an implement substantially such as described, the combination, with the interior blade D and parallel guard G, of the slide S,
 70 having the flanged head s^3 , formed as a seal, substantially in the manner and for the purpose described.

ABBOT AUGUSTUS LOW.

Witnesses:

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 D. W. GARDNER.