| [54] | KNIFE FOR CUTTING IN SLIDING CONTACT WITH RULER EDGE | | | | | | |
|--|--|-------|--------------------------------------|---|--|--|--|
| [75] | Inventor: | Sh | nohachi Himeno, Tokyo, Japan | | | | |
| [73] | Assignee: | | onde Kabushiki Kaisha, Tokyo, pan | | | | |
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| [58] | | | h 30/162, 151, 294, 289 | | | | |
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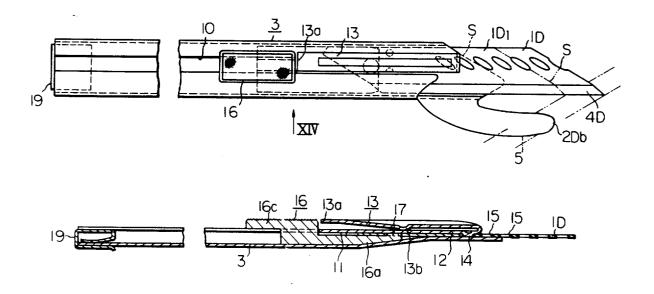
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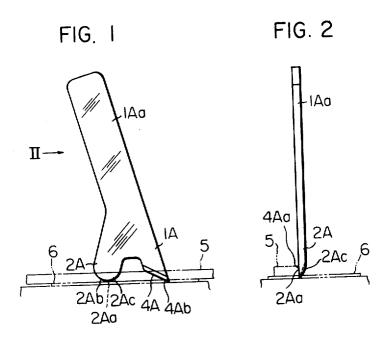
Primary Examiner—Al Lawrence Smith
Assistant Examiner—J. T. Zatarga
Attorney, Agent, or Firm—Haseltine, Lake & Waters

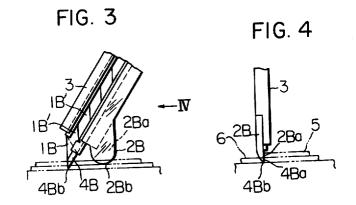
[57] ABSTRACT

A knife having a knife blade with a cutting edge and a tip part of the cutting edge provided with a sliding flank face for sliding along a ruler edge as the tip part cuts a material lying below the ruler edge. The knife also has a guide member spaced apart from and in front of the tip part in the path of cutting advance thereof and having a sliding part for slidably contacting the material and a sliding face adapted to slide along the ruler edge and lying in the same plane as the sliding flank face of the blade, the guide member functioning to prevent the cutting edge from cutting into the ruler edge during a cutting operation.

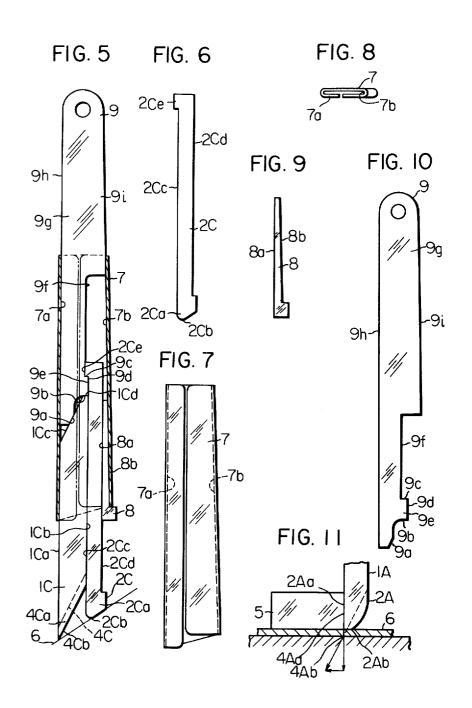
4 Claims, 19 Drawing Figures

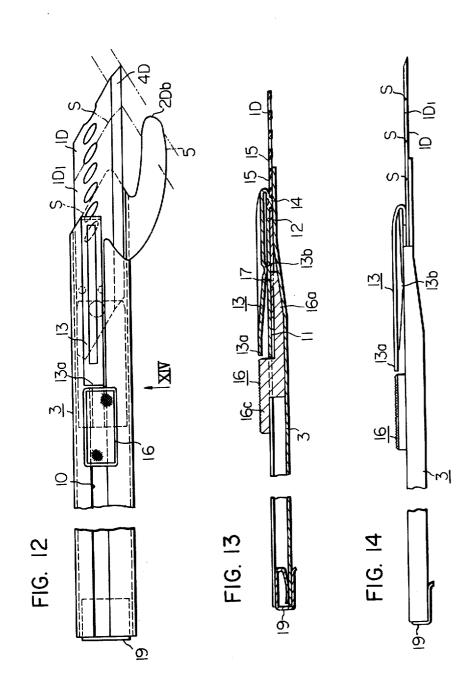


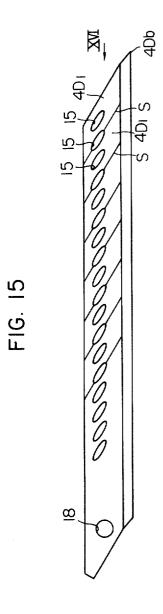


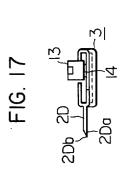


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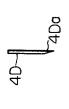
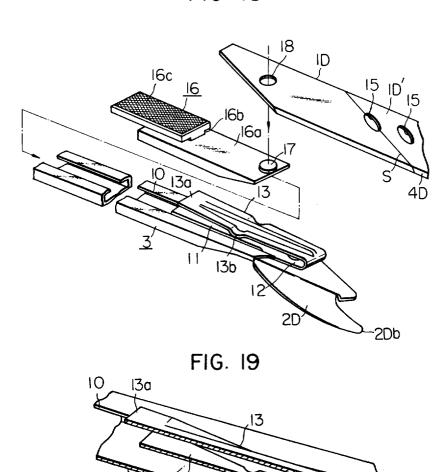


FIG. 18



KNIFE FOR CUTTING IN SLIDING CONTACT WITH RULER EDGE

BACKGROUND OF THE INVENTION

This invention relates generally to hand-held knives and more particularly to a knife to be moved along and in slidinig contact with a guiding surface such as the guiding edge of a ruler or straight edge or a drafting curve thereby to cut a material lying under the guiding 10 tude; surface.

In general, in the case where the cutting edge of a knife with a single-beveled face is moved along a guiding edge surface (hereinafter referred to as a ruler edge), the flat, reverse flank face without a bevel is 15 a knife according to the invention; placed against the ruler edge, while in the case of a knife with double-beveled faces, one flank face of the knife tip is placed against the ruler edge. In either case, it is desirable that the sharp cutting edge tip be moved as it is held in close contact with the ruler edge in order 20 to produce a cut line in the material being cut (e.g., a sheet of a paper) which conforms accurately with the ruler edge.

This is difficult, however, for the following reasons. A knife for the purpose referred to above ordinarily has 25 7; a hilt or handle part which is markedly larger than the cutting edge, and this grip part is held by hand and pulled or pushed to cause the cutting edge cut into the material to be cut. For this reason, it is difficult even for a considerably skilled person to move the cutting edge 30 tip along the ruler edge as the tip is kept positively in continual and positive contact with the ruler edge. If the cutting edge tip should deviate inward even slightly from its true course, that is, toward the direction for cutting into the ruler, it would thus cut into the ruler 35 edge. On the other hand, if the pressure for keeping the cutting edge firmly against the ruler edge is relaxed out of fear of this cutting into the ruler, the cutting edge tip will tend to separate from the ruler edge, whereby an accurage cut line cannot be produced.

SUMMARY OF THE INVENTION

It is an object of this invention to solve the above described problem by providing a knife whose cutting edge tip can be moved positively in close contact with 45 a ruler edge even by an unskilled person without cutting into the ruler edge.

According to this invention, briefly summarized, there is provided a knife having a handle to be manually held for using the knife and a knife blade unitarily held by the handle and having a cutting edge with a tip part and a sliding flank face near the tip part for sliding along and being guided by a ruler edge thereby to enable the tip part to advance in a controlled path in cutting a material lying below the ruler edge, and being 55 characterized by a guide member unitarily secured to the handle at a position spaced apart from and in front of the tip part in the controlled path of cutting advance thereof, this guide member having a sliding part for slidably contacting the surface of the material to be cut and a sliding face adapted for sliding along the same ruler edge and lying in the same plane as the sliding flank face of the blade, whereby the cutting edge is prevented from cutting into the ruler edge during cutting 65 of the material by the tip part.

The nature, utility, and unique features of this invention will be more clearly apparent from the following detailed description with respect to preferred embodiments of the invention when read in conjunction with the accompanying drawings, throughout which like parts are designated by like reference numerals.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a side elevation showing one example of a knife according to this invention in operational atti-

FIG. 2 is a view orthogonal to that of FIG. 1 as viewed in the direction of arrow II therein;

FIG. 3 is a side elevation, with a part cut away, showing the working or forward end of a second example of

FIG. 4 is a view orthogonal to that of FIG. 3 as viewed in the direction of arrow IV therein;

FIG. 5 is a side view of a third example of a knife according to the invention;

FIG. 6 is a side view of a guide used in the knife shown in FIG. 5;

FIG. 7 is a side view of a flat sheath of the knife shown in FIG. 5:

FIG. 8 is an end view of the flat sheath shown in FIG.

FIG. 9 is a side view of a wedge used in the knife illustrated in FIG. 5:

FIG. 10 is a side view of a handle part of the knife shown in FIG. 5;

FIG. 11 is an elevational view showing the manner in which a knife of this invention is used;

FIG. 12 is a side view, with a part cut away, showing a fourth example of a knife according to the invention in a state of minimum blade length;

FIG. 13 is a longitudinal section of the knife shown in FIG. 12;

FIG. 14 is a view orthogonal to that in FIG. 12 as viewed in the direction of arrow XIV therein;

FIG. 15 is a side view of the blade of the knife shown ⁴⁰ in FIG. 12;

FIG. 16 is an end view of the same blade as viewed in the direction of arrow XVI in FIG. 15;

FIG. 17 is an end view of the working or forward end of the sheath of the knife shown in FIG. 12;

FIG. 18 is an exploded perspective view, with parts cut away, showing the essential parts of the knife shown in FIG. 12; and

FIG. 19 is an enlarged perspective view, with parts sectioned along a plane perpendicular to the blade, showing parts at the working or forward end of the sheath shown in FIG. 17.

DETAILED DESCRIPTION

The first example of the knife according to this invention, as shown in FIGS. 1 and 2, illustrates one example of construction wherein the handle 1 Aa, the knife blade 1A, and the guide member 2A are integrally formed. The second example, as shown in FIGS. 3 and 4, illustrates one example of construction in which the guide member 2B is fixed to a holder or sheath 3 in which the blade is adjustably held. The third example, as shown in FIGS. 5 through 11, illustrates one example of construction wherein the guide member 2C is a separate structure. The fourth example, as shown in FIGS. 12 through 19, illustates one example of specific construction of the arrangement of the third example and is provided with means for progressively feeding and

locking a break-off type knife blade relative to a holder, one part of which forms a guide member.

In the first example as shown in FIGS. 1 and 2, the knife blade 1A has a cutting edge 4A, in front of which is integrally formed a guide member 2A. This guide member 2A is so formed that its inner flank surface 2Aa for sliding contact with a ruler 5 lies in the same plane as the reverse flank face 4Aa of the blade, which is one face of the cutting edge 4A of the knife blade 1A for contacting the edge of the ruler 5. The cutting edge 4A has a cutting edge tip 4Ab, which is so formed that, when the tip 2Ab of the guide 2A is brought into contact with the upper surface of the material 6 to be cut (e.g., a sheet of paper), an optimum angle for drawcutting of the order of from 30° to 60° is obtained.

The outer surface 2Ac of the guide member 2A is formed as a curved surface so that the thickness of the guide member 2A decreases toward the tip 2Ab thereof.

The above described features regarding the angle of draw-cutting and the curved nature of the outer surface 2Ac of the guide member 2A are possessed also by the second, third, and fourth examples.

The construction of the first example, in which the knife blade 1A and the guide member 2A, as well as a handle part 1Aa, are integrally formed, is the simplest. However, each time the cutting edge 4A is sharpened, the cutting angle of the cutting edge tip 4Ab relative to the material 6 being cut increases slightly (i.e., the cutting edge becomes more upright). For this reason, it is necessary to design the mutual relationship between the cutting edge tip 4Ab and the guide member 2A so that the cutting angle at the time of fabrication is at the minimum value (e.g., of the order of 30°).

In the second example, the guide member 2B is provided on the working or forward end of a blade holder 3 as mentioned hereinbefore. The blade 1B held within the holder 3 has a cutting edge 4B along and over the entire length of one lateral edge as indicated in FIG. 3 40 and is divided by oblique break-off grooves into a plurality of successively disposable blade units 1B1, which can be successively snapped off, beginning with the most forward unit, when they become dull through wear. Accordingly, the cutting angle between the cut- 45 ting edge tip 4Bb and the material 6 being cut when the tip 2Bb of the guide member 2B is brought into contact with the material 6 can always be maintained constant. Furthermore, since the blade 1B is replaceable, the holder 3 can be used semipermanently if it is made to 50 have high durability and, moreover, can be easily fabricated.

In this case, also, the surface 2Ba of the guide member 2B to contact the ruler edge is formed to lie in the same plane as the blade reverse face 4Ba of the blade 2B. When the blade reverse face 4Ba is placed in close contact with the ruler edge 5, the contact surface 2Ba is also brought into close contact with the ruler edge 5 similarly as in the preceding first example.

In contrast to the above described first and second examples, in which the guide member 2A and 2B are permanently fixed in place forward of the cutting edges 4A and 4B, the third example has a movable guide member 2C, which can be moved out of the way by pushing it into a sheath to a position where it cannot interfere with the use of the knife for purposes other than cutting in cooperation with a ruler edge.

The structural and functional feature of this third example of the knife of the invention will now be described in detail with reference to FIGS. 5 through 10. As shown in FIG. 5, the knife blade 1C has parallel lateral edges 1Ca and 1Cb and has a uniform thickness over its entire length except at the cutting edge 4C, which is oblique relative to the lateral edges 1Ca and 1Cb. The rear end of the blade 1C is in the form of an oblique rear edge 1Cc, which is substantially parallel to the extreme cutting edge 4Cb, and a rear end surface 1Cd, which is perpendicular to the lateral edges 1Ca and 1Cb.

On one hand, as shown in FIGS. 5 and 6, the guide member 2C, which is formed from a sheet material of 15 the same thickness as the knife blade 1C, is in the form substantially of a bar with parallel lateral edges 2Cc and 2Cd, a working end tip 2Cb, and a lug 2Ce projecting out from the lateral side 2Cc at the other end.

In the assembly of this knife, the knife blade 1C and the guide member 2C are inserted, with the lateral edge 1Cb of the former in intimate contact with the lateral edge 2Cc of the latter, into a flat sheath 7 as shown in FIGS. 5, 7, and 8 in a manner such that the lateral side 1Ca of the blade is pressed in close contact with an inner edge wall 7a on one lateral side of the sheath. Then, into a non-parallel gap formed between the other inner edge wall 7b, which is not parallel to the first mentioned inner edge wall 7a, and the lateral side edge Cd of the guide member 2C, a wedge 8 as shown in FIGS. 5 and 9 is inserted under pressure from the larger open end of the gap nearest the tip 2Cb of the guide member 2C thereby to fix the blade 1C and the guide member 2C within the sheath 7.

By drawing out the wedge 8, moving the guide member 2C deeper into the sheath 7, and then inserting again the wedge 8 under pressure, the guide member 2C can be moved out of the way from its position forward of the cutting edge 4C.

The wedge 8 having the above described function is formed from a sheet material of the same thickness as the knife blade 1C and the guide member 2C and has a shape such that its lateral edges 8a and 8b can intimately contact the side edge 2Cd of the guide member 2C and the side edge wall 7b of the sheath 7, respectively.

For further facility in gripping the knife, an extension handle 9 is fitted into the rear end of the sheath 7. As shown in FIGS. 5 and 10, this handle 9 at its forward end has an inclined edge 9a for contacting the rear end edge 1Cc of the knife blade 1C and a contact shoulder 9b for engaging the rear end surface 1Cd of the blade. The contact shoulder 9b forms the front part of a lug 9e having a lateral side edge 9d for sliding contact with the lateral side edge 2Cc of the guide member 2C and a contact shoulder 9c for engaging the lug 2Ce. A cutout recess 9f is formed between the contact shoulder 9cand the rear part 9g of the handle 9, which has straight lateral side edges 9h and 9i and for the most part extends out of the sheath 7. The side edges 9h and 9i are not parallel and coincide with the edge walls 7 a and 7b when the forward part of the handle 9 is fitted into the sheath 7.

In the assembly of the above described various parts to form the knife of this third example, the rear part 9g of the handle 9 is first inserted into the sheath 7 through the larger end opening thereof (i.e., the forward end or lower end as viewed in FIGS. 5 and 7), and

the lug 2Ce of the guide member 2C is engaged with the cutout recess 9f of the handle 9 and thus left. Next, the knife blade 1C is placed so that its lateral edge 1Cb is in lengthwise contact against the lateral edge 2Cc of the guide member 2C, and so that, at the same time, its rear end edge 1Cc abuts against the inclined end edge 9a of the handle 9 thereby to assemble the knife blade 1C. The wedge 8 is then inserted into the sheath to fix the knife blade 1C, the guide member 2C, and the handle 9 in place relative to each other and to the sheath 7.

The relative positional relationship between the working tip 2Cb and the lug 2Ce of the guide member 2C is so determined that the tip 2Cb is in its proper position relative to the knife blade 1C with the lug 2Ce in engaged contact with the shoulder 9c of the handle 9c, 15 that is, the cutting angle between the tip part of the cutting edge 4Cb and the upper surface of the material 6c being cut becomes the aforementioned specific angle (e.g., of the order of from 30 to 60°) when the tip 2Cb is placed against the upper surface of the material 6c with a flank face 2Ca for sliding contact with the ruler edge placed firmly against the ruler edge, and, at the same time, the reverse face 1Ca of the knife blade 1Cc is placed closely against the same ruler edge to carry out cutting of the material 6c.

The operational features during use of the knife of this invention of the above described structure will now be described with reference to FIG. 11. The reference numerals used in FIG. 11 are those of the first example illustrated in FIGS. 1 and 2, but by substituting subscripts B, C, or D for the subscript A in these reference numerals, the following description is rendered applicable to the second, third, or fourth example.

First, a ruler 5 is placed in a desired position on the upper surface of a material 6 to be cut. Then the reverse face 4Aa of the cutting edge 4A of the knife blade 1A and the face 2Aa of the guide member 2A for sliding contact with ruler edge are pressed firmly against the ruler edge, and, at the same time, the cutting edge tip 4Ab and the working tip 2Ab of the guide member 2A are pressed against the upper surface of the material 6. Then, with the knife maintained in the above described state, it is moved in the cutting direction.

As a result, a large resultant force of the vertical downward force applied to the knife blade 1A and the horizontal force applied against the edge of the ruler 5 acts to force the cutting edge tip 4Ab against the material 6 positioned immediately below the ruler edge toward the lower surface of the material, whereby accurate cutting thereof along the ruler edge is carried out. Since the reverse face 4Aa of the blade and the ruler contacting face 2Aa of the guide member lie in one and the same plane there is no possibility whatsoever of the cutting edge tip 4Ab cutting into the ruler edge.

The fourth example as illustrated in FIGS. 12 through 19 is an example of specific practical construction of a knife in which the knife blade is divided by oblique break-off grooves into a plurality of blade units, which can be successively snapped off when they become dull through wear, similarly as in the preceding second example illustrated in FIGS. 3 and 4. Another feature of this example is that there are provided means of simple construction whereby the knife blade can be fed progressively toward the forward end of the holder in which it can slide, locked in any desired position, and retracted into and locked in the holder when the knife is not being used.

As shown in FIG. 15, the knife blade 1D of this knife has a single-beveled cutting edge 4D formed along the entire length of one lateral edge and is divided by oblique break-off grooves S into a number of blade units 1D1, which can be successively snapped off, beginning with the fore-most blade unit, when they become dull through wear.

This knife blade 1D is inserted into and slidably held in the longitudinal direction by a flat sheath-like holder 10 3 of rectangular cross section, which has a longitudinal slit 10 as shown in FIGS. 12 and 18. Near the forward end of this holder 3, one edge of the slit 10 is transversely extended in a manner to close the slit 10, and the transverse extension 11 thus formed has a part at 15 the forward end of the holder which is formed with a tongue-like member 12 separated from the two edges of the slit 10 and having an elastically deflectable property.

This tongue-like member 12 is folded upward and over onto itself near the forward end of the holder, and the part thus folded over is formed into a lever member 13 disposed above the above mentioned transverse extension 11 and having a rear free end 13a.

As shown in FIGS. 13, 18, and 19, this lever member 13 has a downward projection 13b formed therein at a point substantially midway between the fold-over point and the rear free end 13a. This projection 13b is normally in contact with the above mentioned transverse extension 11.

When the free end 13a is pressed by a finger to apply a force on the lever member 13 toward the transverse extension 11, the projection 13b becomes a fulcrum whereby the tongue-like member 12 can be deflected upward. The tongue-like member 12 is provided at its forward end with a downwardly directed locking projection 14 for positioning the knife blade as described below.

The locking projection 14 is adapted to fit into and engage with any of a large number of engagement holes 15 provided with a specific spacing in the knife blade 1D in the longitudinal direction thereof thereby to lock the knife blade against sliding movement in the longitudinal direction relative to the holder 3. When the member 12 is deflected upward, the locking projection 14 is extracted from the hole 15, whereby the knife blade 1D is unlocked.

The centers of the engagement holes 15 are positioned on all of the aforementioned break-off grooves S and midway between these grooves on all of the blade units 1Dl, that is, at the centers of these blade units. These holes 15 are of elliptical shape with major axes in the direction of the break-off grooves S. In conformance with this shape of the holes, the projection 14 for engagement with these holes for positioning and locking the blade also has a corresponding elliptical shape.

In addition, as shown in FIGs. 12 and 18, a guide member 2D is formed to project obliquely transversely from the working end of the holder on the side of extension of the transverse extension 11. This guide member 2D has a curved tip edge 2Db, and the reverse face thereof as viewed in FIG. 17 has a surface 2Da adapted for sliding contact with a ruler edge. This sliding contact surface 2Da lies in the same plane as the reverse face 4Da of the cutting ede 4D of the knife blade 1D inserted into the holder 3 and functions to prevent the cutting edge from cutting into the ruler edge when

the cutting edge 4D is advanced along the ruler edge 5 in cutting action.

A slider 16 for undergoing sliding in the forward and rearward directions within the holder 3 comprises, as indicated in FIGS. 13 and 18, a main sliding structure 5 16a accommodated within the holder, a grooved part 16b for engagement with the edges of the slit 10, and a slide key 16c, which can be pushed by a finger tip to move the entire slider 16. A stud projection 17 for blade feeding is fixed to the upper surface of the for- 10 reverse face 4Da of the cutting edge 4D and the sliding ward end of the main sliding structure 16a. This stud projection 17 is adapted to fit into an engagement hole 18 provided in the knife blade 1D near the rear end thereof.

through the rear open end thereof. The height of the interior of the holder 3 from the rear end to the vicinity of the part below the aforementioned transverse extension 11 is made substantially equal to the sum of the thicknesses of the main sliding structure 16a of the 20 slider 16 and the knife blade 1D. At the same time, the internal dimensions of the holder 3 from the part of the tongue-like member 12 to the forward end are so selected that the blade 1D will slide with as close a contact as possible with the inner surface of the holder. 25 In addition, the holder 3 is provided at its rear end with a closing member 19 detachably secured thereto.

Because of the above described structural arrangement of the knife according to the invention, the following features are afforded. The closing member 19 is 30left detached, and the slider 16 with its stud projection 17 engagedly fitted in the engagement hole 18 of the knife blade 1D is inserted with the blade in front of it into the holder 3. By pressing the free end 13a of the lever member 13 downwardly at this time, the member 12 is deflected upwardly, and the locking projection 14 is lifted clear of the knife blade 1D and does not obstruct the forward advance of the blade.

When the forward tip of the knife blade 1D has been extended a desired distance forward and beyond the forward end of the holder 3, the finger pressure which has been pushing the free end 13a of the lever member 13 down is removed, whereupon the lever action is terminated, and the tongue-like member 12 returns to its former state. Accordingly, by moving the slider 16 45 slightly forward or rearward to cause the locking projection 14 to engage with the nearest engagement hole 15, the knife blade 1D and the slider 16 are both locked to the holder 3. After the knife blade 1D and the slider have been inserted into the holder 3, the rear end of the holder is closed by means of the closing member 19.

After use, the blade 1D can be retracted into the holder 3 for the sake of safety in the following manner. The free end 13a of the lever member 13 is pressed down to lift the member 12 and thereby to extract the locking projection 14 from the engagement hole 15, and the slider 16 is moved rearward. Then, since the stud projection 17 is engaged with the engagement holes 18, the blade 1D is pulled rearward by the slider 60 16, and its forward tip is retracted into a safe position within the holder 3.

At this time, by causing the locking projection 14 of the member 12 to fit into the nearest engagement hole 15 of the knife blade 1D thus retracted, the blade can be safely locked and prevented from sliding out.

Then, when the knife is to be used, the free end 13a of the lever member 13 is pressed down to cause the member 12 to deflect upward and the locking projection 14 to be extracted from the engagement hole 15, and the slider 16 is pushed forward to cause the blade tip 4D to project a required distance beyond the forward end of the holder 3 in the same manner as described hereinabove. The locking projection 14 is then inserted into the nearest engagement hole 15 to lock the knife blade 1D relative to the holder 3.

Then, for cutting a material along a ruler edge, the contact surface 2Da of the guide member 2D are placed against the ruler edge. The cutting edge 4D then cannot cut into the ruler edge.

When the cutting edge 4D becomes dull because of The slider 16 is inserted into place in the holder 3 15 wear, the blade unit 1Dl of that cutting edge, i.e., the most forward blade unit, is snapped off along the breakoff groove S, and the knife blade 1D is advanced by one pitch or twice the spacing of the engagement holes 15.

> Thus, by merely causing the tongue-like member 12 formed by one part of the holder 3 to deflect, the knife blade 1D can be released from its locked state within the holder. Also, by permitting the tongue-like member to return to its normal state and fitting the locking projection 14 for positioning into any one of the numerous engagement holes in the knife blade, the knife blade can be locked in the corresponding position. Furthermore, the guide member formed at one part of the holder functions to prevent positively the cutting edge of the blade from cutting into the ruler edge when the knife is moved in cutting action along the ruler edge. Still another advantageous feature of this knife is its simple construction with a small number of parts and its simple and safe manipulation.

> While the knife according to the present invention in any of its various forms, as described only representatively above with respect to a few examples thereof, is adapted principally to cut paper and like sheet materials, it can be used also for cutting cords, strings, and the like between the cutting edge and the guide member. Another use is that of the guide member for making creased folding lines in sheet materials. In addition, the knife can also be used advantageously for trimming off flashes and edge irregularities of molded synthetic resin products without damaging these products.

While examples of the knife in which the blade has a single-beveled face have been described above, it will be apparent that the knife according to the invention is equally effective with a blade with double-beveled faces. In this case, the sliding surface of the guide member to contact the ruler edge is positioned to lie in the same plane as that face of the knife blade which is to slidingly contact the ruler edge.

Thus, irrespective of the type of blade beveling, the cutting edge of the knife of the present invention is prevented from cutting into a ruler edge, whereby the knife can be used even by unskilled persons to cut sheet materials accurately along a guiding edge such as a ruler edge.

What we claim is:

1. A knife comprising in combination: a hollow blade holder of tubular form provided with a longitudinal slit therealong; an elongated knife blade slidably mounted in said blade holder and having a longitudinal cutting edge with a forward tip part and a sliding flank face provided near said tip part for sliding along a ruler edge thereby to enable the tip part to advance in a controlled

path in cutting a material lying under the ruler edge, said knife blade being of a break-off type and having longitudinally equally spaced grooves disposed at a specific angle relative to the cutting edge of the blade and dividing the blade into a plurality of successively dis- 5 posable blade units, said knife blade being provided with engagement holes disposed at intervals along the length of the blade; a guide member rigidly secured to said blade holder at a position spaced apart from and in front of said tip part in said path of cutting advance; 10 a manually operable slider engaging in said slit in the blade holder for guided sliding movement along the slit, said slider being connected to said knife blade, whereby the blade can be adjustably moved longitudinally by manually moving the slider; and knife bladle 15 locking means for preventing said blade from moving longitudinally relative to said blade holder, said locking means comprising a tongue-like member extending from said blade holder longitudinally and forwardly and having an elastically deflectable property, a lock- 20 ing projection on the forward end of said tongue-like member for disengageably engaging any one of said engagement holes, a lever member integrally connected to said forward end of the tongue-like member and extending rearwardly along the same, and a projection on 25 is joined to said blade. said lever member midway between the ends thereof

and engaging with said blade holder to function as a fulcrum for said lever member, whereby when the free end of the lever member is manually depressed, the forward end of the tongue-like member is raised to disengage said locking projection from the hole with which it has been in engagement, thus allowing longitudinal movement of the knife blade.

2. A knife as claimed in claim 1 wherein said blade holder has a transverse extension extending from one edge of said slit to close the slit at the forward end of the blade holder and integrally supporting said tonguelike member.

3. A knife as claimed in claim 1 wherein said slider comprises a main sliding structure accomodated within said blade holder, a manually movable slide key disposed outside the holder and joined to said main structure, and a pair of opposite longitudinally grooved parts provided between said structure and the slide key for sliding engagement with edges of said slit.

4. A knife as claimed in claim 3 wherein said main sliding structure has a projection and said blade is provided with a further engagement hole disengageably receiving said projection therein, whereby said structure

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