June 15, 1943. H. I. SALSBURY 2,321,706

KNIFE

Filed Aug. 2, 1941

Fig. 1.

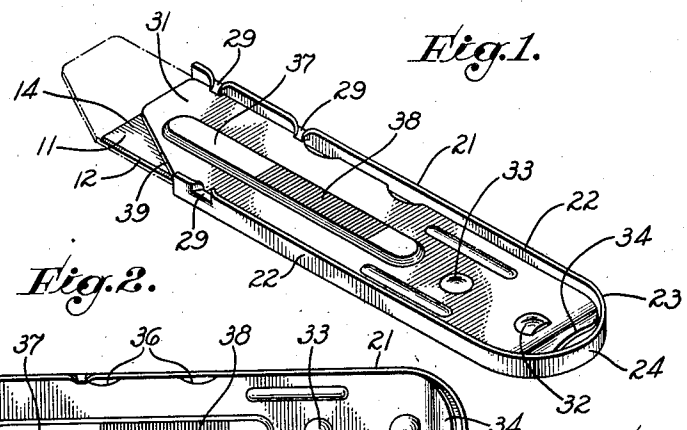


Fig. 2.

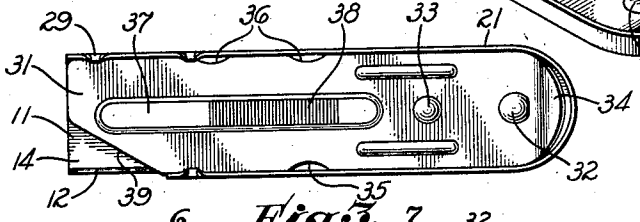


Fig. 3.

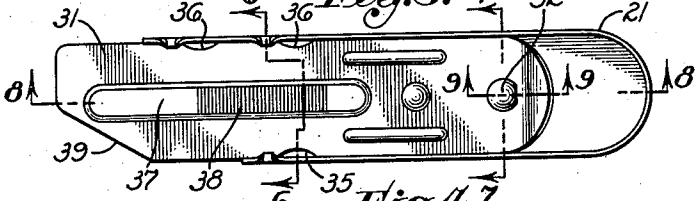


Fig. 4.

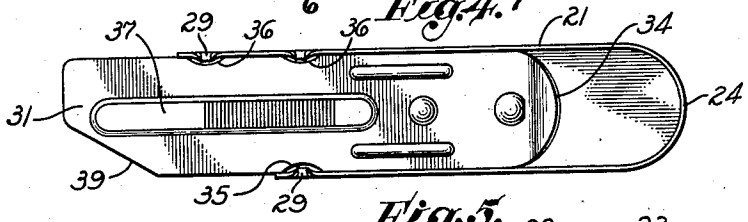


Fig. 5.

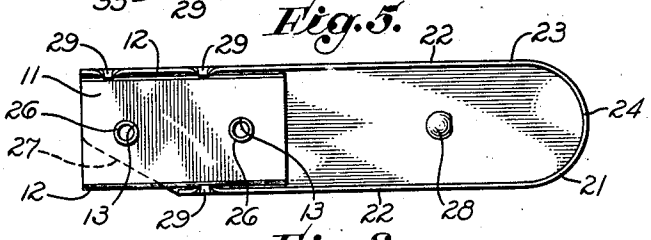


Fig. 6.

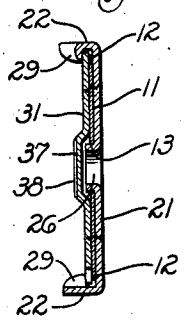


Fig. 7.

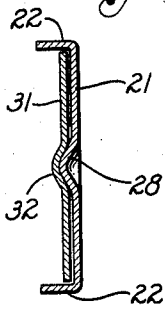
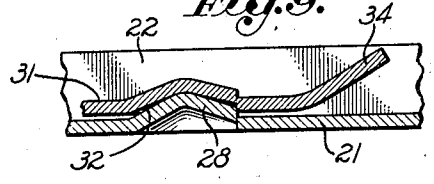


Fig. 8.



Fig. 9.



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UNITED STATES PATENT OFFICE

2,321,706

KNIFE

Hubert I. Salsbury, Oakland, Calif.

Application August 2, 1941, Serial No. 405,209

3 Claims. (Cl. 30—151)

My invention relates to a special form of knife which has many uses. It employs a double-edge safety razor blade as the cutting element. Such blades are made of very thin steel, are rectangular in form, and have a cutting edge on each of their longer sides. They also have two holes or perforations which are intended to align the blades in the standard safety razor. In my invention only one corner of the blade is in use at any time so that a single blade provides four available cutting edges. Safety razor blades are used because they are readily available, relatively cheap, and have a very sharp cutting edge.

An object of my invention is to provide a knife using such a safety razor blade which will hold the blade solidly in position so that considerable force may be exerted to drive the blade into the material to be cut.

Another object of the invention is to provide a knife of this character in which a retainer is provided for the blade, the retainer being so mounted that it can be moved to an operative position in which the blade is exposed for cutting or to a safety position in which the blade is shielded from injury and so covered that it cannot cut.

A still further object of my invention is to provide a knife in which the retainer may be readily moved from, or to, the operative position to, or from, the safety position by the use of the thumb of the same hand that uses the knife.

A still further object of my invention is to provide a knife which is so constructed that the blade can be quickly removed and replaced and the knife can be quickly and thoroughly cleaned.

A still further object of my invention is to provide a knife in which the blade is carried in two members which can be readily formed from sheet metal.

Further objects and advantages will be made evident hereinafter.

In the drawing, which is for illustrative purposes only:

Fig. 1 is a perspective view of my invention;

Fig. 2 is a side elevational view of the knife in operative position;

Fig. 3 is a side elevational view of the knife in safety position;

Fig. 4 is a side elevational view of the knife in released position;

Fig. 5 is a side elevation of my invention with the retainer removed;

Fig. 6 is an enlarged vertical section taken on the line 6—6 of Fig. 3;

Fig. 7 is an enlarged vertical section taken on the line 7—7 of Fig. 3;

Fig. 8 is a horizontal section taken on the line 8—8 of Fig. 3; and

Fig. 9 is an enlarged horizontal section taken on the line 9—9 of Fig. 3.

In the form of invention disclosed in the drawing I employ a safety razor blade 11 which is formed of thin and hard sheet steel, which has two cutting edges 12, each on one of the longer sides of the blade, and two perforations 13 extending therethrough by means of which the razor blades are aligned when they are used in a safety razor or in my knife.

The blade 11 is carried in a blade holder 21 which is formed of sheet metal and has a flange 22 formed on each side thereof. A very rigid form of blade holder is provided by rounding the handle end 23 thereof and connecting the flanges 22 by a flange 24, the flanges 22 and 24 forming a continuous rim extending along both sides of the holder 21 and around the handle end 23 thereof. The distance between the flanges 22 is such that the blade 11 may be placed therebetween, resting on top of the flat surface of the holder 21 between the flanges 22. There are two projections 26 formed from the metal of the holder 21 and projecting upwardly therefrom in such a position as to enter the perforations 13 of the blade 11 and hold it with a corner 14 of the blade 11 projecting beyond the holder 21 due to the corner of the holder being cut away as shown at 27. A small spherical projection 28 is formed on the upper surface of the holder 21 and the flanges 22 have ears 29 formed thereon as shown.

The retainer 31 is also formed of sheet metal and is of the proper width to fit snugly inside the flanges 22. It is provided on its under side with depressions 32 and 33 which engage the spherical projection 28 of the holder 21. The rounded handle end 34 of the retainer 31 is turned up slightly so that a finger or thumb nail may be inserted thereunder. A notch 35 is formed on one side of the retainer and two notches 36 are formed on the other side thereof, the notches 35 and 36 being so placed as to register with the ears 29 when the retainer is pushed into the released position. A central ridge 37 is formed on the top of the retainer and is knurled as shown at 38. The corner of the retainer is cut away as shown at 39.

The knife is assembled as follows: The blade 11 is placed on top of the holder 21 with the projections 26 in the perforations 13 of the blade 11. The retainer 21 is then pressed down on top of the blade 11, the notches 35 and 36 allowing the retainer to pass the ears 29. If now the retainer 31 is pulled toward the handle end of

the holder 21, the ears 29 engage the edges of the retainer 31 and hold it against the blade 11. The projection 28 then engages the depression 32 and the retainer is locked in the safety position with the blade 11 entirely covered by the retainer 31. If the thumb of the user is then pressed against the ridge 37, engaging the knurled portion 38 thereof, the retainer can be further slid toward the handle end of the holder into operative position in which the projection 28 engages the depression 33 and locks the retainer 31 with relation to the holder 21. In this position the corner of the blade projects beyond both the holder 21 and the retainer 31, exposing one end of one of the cutting edges 12. The flange 22 opposite this edge forms a convenient surface for the thumb of a user if he wishes to press the exposed cutting edge 12 into the material to be cut. Whenever the knife is not in use, the user slides the retainer back into safety position, thus shielding the blade 11.

If at any time the cutting edge then in use becomes dull, the blade 11 may be removed from the holder by sliding the retainer into released position with the notches 35 and 36 in registry with the ears 29. The depression 32 is, however, so formed with relation to the projection 28 that the retainer cannot be moved from its safety position to its released position merely by pressing with the thumb on the ridge 37 but the end 34 of the retainer must be lifted by inserting the thumb nail under the turned-up portion of this end 34. This makes it necessary to proceed in a different manner to release the blade 11 than is used in shifting the retainer 31 which may be shifted from operative to safety position and from safety to operative position so that the knife will not come apart unless the operator desires that it do so. When the knife is apart the members thereof can be readily cleaned. If a new blade is desired, it can be inserted, but it should be remembered that the blade 11 has four cutting corners and may be reversed in the knife so as to use all four corners before a new blade is necessary.

The knife described is very useful. It may be used for opening paper cartons, making stencils, or other art work, by tailors and dressmakers for cutting cloth or the stitches of seams, and for many other purposes.

I claim as my invention:

1. In a knife, the combination of: a flat backing plate; projections projecting upwardly from the top of said plate for engaging and holding in position with relation to said plate a perforated safety razor blade; a cover plate adapted to slide over said projections and to hold said blade in position on said projections; two flanges, one on each longitudinal edge of said backing plate, said cover plate sliding freely in a longitudinal direction between said flanges; and ears formed on said flanges projecting inwardly from each of said flanges in such a manner as to project over the cover plate and thus retain it in a position in which it holds said blade in engagement with said projections, the cover plate being so notched that when pushed into an extreme position said cover plate may be removed from between the flanges, the ears passing through said notches.

2. In a knife, the combination of: a flat backing plate; projections projecting upwardly from the top of said plate for engaging and holding in position with relation to said plate a perforated safety razor blade; a cover plate adapted to slide over said projections and to hold said blade in position on said projections; two flanges, one on each longitudinal edge of said backing plate, said cover plate sliding freely in a longitudinal direction between said flanges; ears formed on said flanges projecting inwardly from each of said flanges in such a manner as to project over the cover plate and thus retain it in a position in which it holds said blade in engagement with said projections, the cover plate being so notched that when pushed into an extreme position said cover plate may be removed from between the flanges, the ears passing through said notches; and a rounded projection extending upwardly from said backing plate and frictionally engaging a depression in the cover plate with the cover plate in position to expose a corner of said knife.

3. In a knife, the combination of: a flat backing plate; projections projecting upwardly from the top of said plate for engaging and holding in position with relation to said plate a perforated safety razor blade; a cover plate adapted to slide over said projections and to hold said blade in position on said projections; two flanges, one on each longitudinal edge of said backing plate, said cover plate sliding freely in a longitudinal direction between said flanges; ears formed on said flanges projecting inwardly from each of said flanges in such a manner as to project over the cover plate and thus retain it in a position in which it holds said blade in engagement with said projections, the cover plate being so notched that when pushed into an extreme position said cover plate may be removed from between the flanges, the ears passing through said notches; and a rounded projection extending upwardly from said backing plate and frictionally engaging a depression in the cover plate with the cover plate in position to expose a corner of said knife, or engaging a second depression in the cover plate when the cover plate is in a position to cover and shield said knife.

HUBERT I. SALSBURY.