June 28, 1966 E. M. CAINE 3,257,722

STRIPPER KNIFE

Filed April 20, 1965

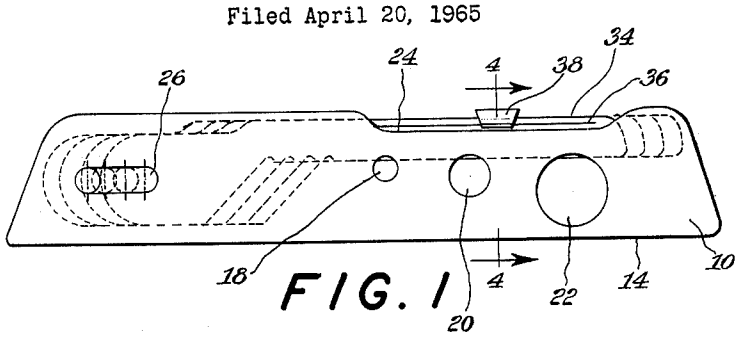


FIG. 1

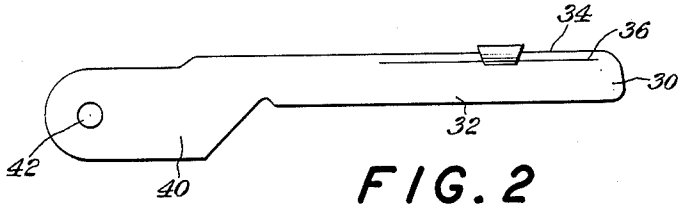


FIG. 2

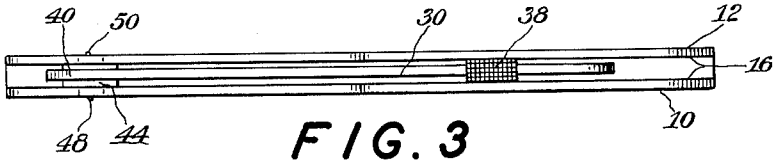


FIG. 3

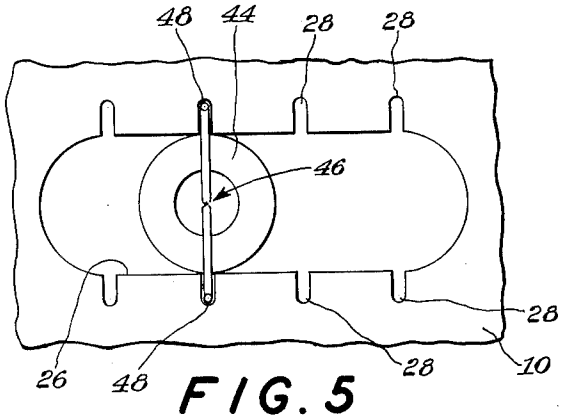


FIG. 5

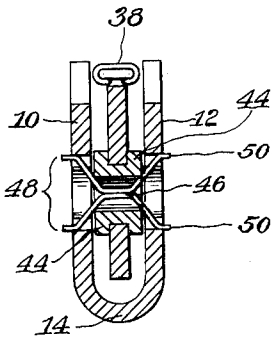


FIG. 4

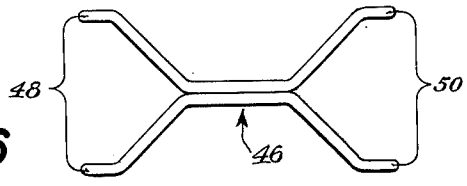


FIG. 6

INVENTOR.
EARLE M. CAINE

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3,257,722

STRIPPER KNIFE

Earle M. Caine, P.O. Box 5373, Columbia, S.C.

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5 Claims. (Cl. 30—91)

My invention is directed toward stripper knives for removing or stripping external insulation away from an insulated wire.

It is an object of my invention to provide a new and improved stripper knife having a thumb piece which when pressed upon by the user permits the user to vary in a controlled manner the amount of stripping pressure to be exerted during a stripping operation.

Another object is to provide a new and improved stripper knife of the character indicated having means which, when a portion of a knife blade in the knife used for stripping is dulled, permits the blade to be repositioned in the knife in such manner as to expose an undulled portion of the blade for further stripping operations.

Still another object of my invention is to provide a new and improved stripper knife of the character indicated which can be manufactured easily and inexpensively.

All of the foregoing and still further objects and advantages of my invention will now be explained with reference both to this specification and to the drawings wherein:

FIG. 1 is a side view of my stripper knife;

FIG. 2 is a side view of a knife blade used in my knife;

FIG. 3 is a top view of my knife;

FIG. 4 is a cross sectional view taken along 4—4 in FIG. 1;

FIG. 5 is an enlarged detail view of the horizontal slot and blade positioning means as employed in my knife; and

FIG. 6 is a detail view of a spring element utilized in the blade positioning means in my knife.

Referring now to FIGS. 1–6, there is shown a pair of elongated horizontally extending parallel plates 10 and 12 connected together integrally at their bottom horizontal edges by a horizontally extending curved member 14 whereby a space 16 is defined between plates 10 and 12. Plates 10 and 12 are provided with a plurality of transverse sets of aligned circular holes 18, 20 and 22 which are horizontally spaced apart and are of different diameters to accommodate insulated wires of different diameters. The aligned top horizontal edges of these plates carry aligned notches 24.

Each of plates 10 and 12 adjacent one end (the left hand end as shown in the drawings) is provided with an elongated horizontal slot 26 having along its periphery a plurality of horizontally spaced vertically extending slits 28. The slots and slits of both plates are aligned with each other.

I further provide a horizontally extending knife blade 30 having a bottom horizontal cutting edge 32 and a top horizontal edge 34 with adjacent side horizontal grooves 36. Grooves 36 are slidably engaged by a thumb piece 38 riding on top of edge 34 in notches 24.

The left hand end of blade 30 terminates in a shank portion 40 having a hole 42 therein. A bushing 44 extends through this hole and the aligned slots 26 whereby the blade is held in space 16 between plates 10 and 12. Extending within bushing 44 is a spring element 46 having first and second sets of aligned ends 48 and 50.

When the ends in either of sets 48 or 50 are squeezed manually toward each other, these ends are movable in

slots 26 whereby the blade can be moved back and forth horizontally between plates 10 and 12. When the pressure on these ends is released, these ends will fit into one or another of slits 28 to lock the blade in position.

Thus, when stripping operations are carried out and the portion of the cutting edge communicating with the sets of aligned holes are dulled by repeated use, the blade can be moved back or forth by operation of the spring element to expose a fresh portion of the cutting edge to the sets of aligned holes, thus permitting my knife to be used for a much larger number of stripping operations than heretofore available. Moreover, by sliding thumb piece to a position just above the particular set of aligned holes to be used for a stripping operation, thumb pressure on this piece can control the stripping pressure to be used. Of course, when this pressure is exerted, the cutting edge of the blade is moved downward into the aligned holes.

While I have described my invention with particular reference to the drawings, my protection is to be limited only by the terms of the claims which follow.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A stripper knife for stripping insulation away from an insulated wire, said knife comprising first and second horizontal plates secured to each other in spaced apart relation to define a space therebetween, an elongated horizontal knife blade disposed in said space and having a bottom horizontal cutting edge, each plate, adjacent one end thereof, having a horizontal elongated slot, the horizontal slots being aligned, means connected to said blade adjacent one end thereof and riding in the aligned slots, said means when manually actuated moving said blade horizontally back and forth to a selected position in said space, said plates being provided with a plurality of sets of transverse aligned round holes, the various sets of aligned holes being horizontally spaced apart from each other, and a thumb piece secured to the top horizontal edge of the blade which when pressed down against the blade causes the bottom edge thereof to penetrate into the sets of aligned holes.

2. A stripper knife as set forth in claim 1 wherein said piece is slidable along the top edge of the blade.

3. A stripper knife as set forth in claim 2 wherein said sets of holes vary in diameter.

4. A stripper knife as set forth in claim 3 wherein the periphery of the aligned slots carries a plurality of vertical slits horizontally spaced apart from each other, and said means is provided with a spring element which can be selectively placed in any one of the slits whereby the position of the blade in said space is determined accordingly.

5. A stripper blade as set forth in claim 4 wherein said plates are provided with aligned notches in the top horizontal edges thereof, said thumb piece being slidable along the top edge of the blade within the aligned notches.

References Cited by the Examiner

UNITED STATES PATENTS

2,133,005	10/1938	Wollenweber	81—9.5
2,187,215	1/1940	Spinello	30—91
2,662,283	12/1953	Gienger	30—91
3,192,624	7/1965	Gringer	30—293 X

FOREIGN PATENTS

1,050,414	2/1959	Germany.

WILLIAM FELDMAN, *Primary Examiner.*
MYRON C. KRUSE, *Examiner.*