Feb. 16, 1960 E. S. KRAUS, JR 2,924,879

LINEMAN'S KNIFE

Filed Oct. 21, 1958

Fig. 2.

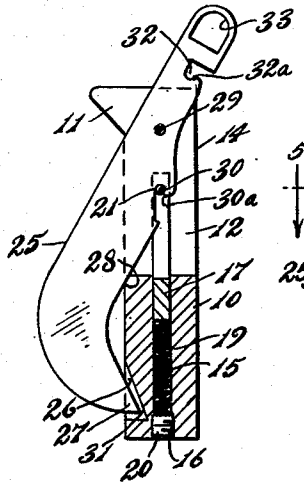


Fig. 1.

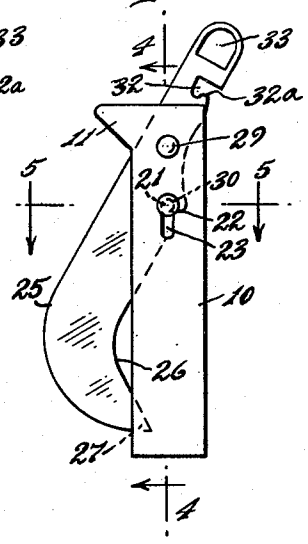


Fig. 3.

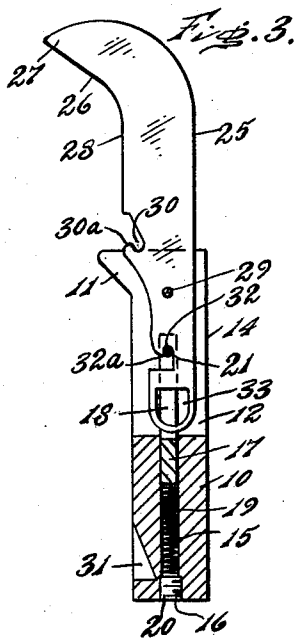


Fig. 4.

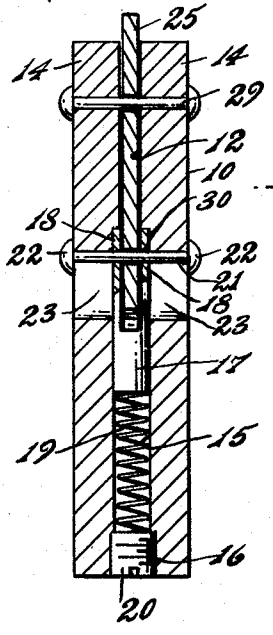


Fig. 5.

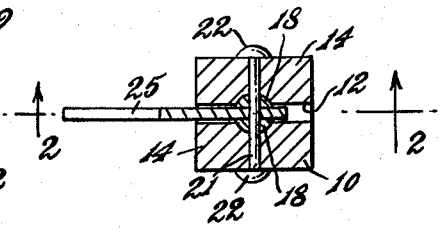
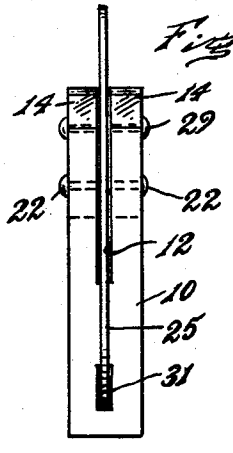


Fig. 6.



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LINEMAN'S KNIFE

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10 Claims. (Cl. 30—151)

This invention relates to a lineman's knife.

It has heretofore been common practice for a lineman to carry a number of tools attached to a body belt and readily accessible while standing on climbers in working position on a pole. Among the tools commonly carried is a skinning knife having a curved and hooked blade for trimming insulation and weatherproofing from conductors. The conventional skinning knife has a blade fixed in a handle, the whole being of a length of the order of ten inches, and a screw eye being provided in the end of the handle for attachment to a snap hook on a tool holster carried on the body belt. Such a knife, when suspended on the snap hook, is free to swing with the blade end well below the knee and constitutes a hazard which has resulted in severe injuries to linemen.

It is the principal object of the present invention to provide a lineman's knife which overcomes the hazards of linemen's knives now available, which is simple yet sturdy in construction, and which is adapted for serving all the purposes of the linemen's knives heretofore available.

It is a further object of the present inventoin to provide a lineman's knife having open and closed positions with provisions for locking the knife in either position or in open position.

It is a further object of the present invention to provide a lineman's knife in which the cutting edge and terminal point, in closed position, are protected against damage and which is safe to carry.

It is a further object of the present invention to provide a lineman's knife which has additional protective features incorporated therein, particularly in that it cannot be fastened to the holster snap hook while locked in open position.

Other objects and advantageous features of the invention will be apparent from the description and claims.

The nature and characteristic features of the invention will be more readily understood from the following description, taken in connection with the accompanying drawings forming part thereof, in which:

Figure 1 is a side elevational view of a preferred form of lineman's knife in accordance with the invention, in closed condition for carrying;

Fig. 2 is a lonigtudinal sectional view taken approximately on the line 2—2 of Fig. 5, and showing the blade in closed position for carrying;

Fig. 3 is a view similar to Fig. 2 showing the blade in open position for use;

Fig. 4 is a longitudinal sectional view, enlarged, taken approximately on the line 4—4 of Fig. 1;

Fig. 5 is a transverse sectional view, enlarged, taken approximately on the line 5—5 of Fig. 1; and

Fig. 6 is a front elevational view of the lineman's knife shown in Fig. 1.

It should, of course, be understood that the description and drawings herein are illustrative merely, and that various modifications and changes can be made in the structure disclosed without departing from the spirit of the invention.

Like numerals refer to like parts throughout the several views.

Referring now more particularly to the drawings, the lineman's knife in accordance with the present invention preferably includes an elongated body 10 of substantially square shape in transverse cross section, and made of wood, synthetic plastic or other suitable material. The body 10 provides a handle, as hereinafter explained, and has a sidewise extension 11 to provide a location for engagement, if desired, by the thumb of the user.

The body 10 has a slot 12 extending inwardly from one end thereof and to a location intermediate the ends of the body 10 and providing bifurcated body portions 14.

The body 10 has extending inwardly from the opposite end thereof a bore 15, threaded at its outer end 16. The bore 15 has provided therein a longitudinally disposed detent pin 17, having bifurcations 18, a compression spring 19 being in engagement at one end with the pin 17, the other end of the spring 19 being in engagement with a threaded retaining plug 20 engaged in the outer end 16 of the bore 15.

A detent bar 21 is provided, extending through the body portion 10 in intersecting relation to the slot 12, and intersecting and in engagement with the bifurcations 18. The detent bar 21 has enlarged heads 22 on each of the outer ends thereof for manual manipulation, opposite longitudinal slots 23 in the body 10 permitting of limited movement of the bar 21 and the pin 17 longitudinally of the body 10, with the spring 19 continuously urging the bar 21 towards the extremities of the slots 23 remote from the plug 20.

A blade 25 is provided of substantially J-shape with a cutting edge having a curved outer cutting edge portion 26 terminating at a pointed end part 27 of the blade 25 and with a straight cutting edge portion 28 extending therefrom as a continuation of the cutting edge portion 26.

The blade 25, at a location intermediate its ends, is pivotally mounted in the slot 12 of the body portion 10 by a pivot pin 29. Between the pointed end part 27 of the blade 25 and the pivot pin 29, and extending inwardly from the edge of the blade 25 on which the cutting edge portion 28 is disposed, a notch 30 can, if locking in closed position is desired, be provided for selective engagement by the detent bar 21, bounded in part by a cam surface 30*a* for guiding the detent bar 21 into engagement in the notch 30.

The body 10 is provided, along one side edge thereof with a recess 31 for the reception of the end part 27 of the blade 25 when the bar 21 is in engagement with the notch 30.

The blade 25, at the other end thereof, and beyond the pivot pin 29 is provided with a notch 32 which extends inwardly from the same edge of the blade 25 on which the cutting edge portions 28 and 26 are provided, and then longitudinally axially of the blade 25 towards the pivot pin 29, and is bounded in part by a cam surface 32*a* for guiding the detent bar 21 into engagement in the notch 32.

The blade 25 beyond the notch 32 is provided with an integral terminal eye 33 for engagement by the snap hook (not shown) by which the knife of the present invention may be supported in closed position.

The mode of use will now be pointed out.

With the blade 25 in closed position for carrying, as shown in Figs. 1, 2, 4 and 6, the eye 33 and the portion of the blade 25 contiguous thereto extend outwardly beyond the end of the body portion 12 for easy access. The end part 27 of the blade 25 is disposed within the recess 31 and the blade 25 is held in fixed position by the engagement of the detent bar 21 in the notch 30. The detent bar 21 is held in locking position by the force

of the spring 19 applied to the detent pin 17 by which the detent bar 21 is carried.

When it is desired to move the blade 25 to a position for use, the enlarged heads 22 of the detent bar 21 are pressed to move the detent bar along the slots 23 to release the detent bar 21 from its engagement in the notch 30. The blade 25 is then swung to the position illustrated in Fig. 3. As the blade 25 approaches this position the cam portion 32*a* along the notch 32 forces the detent pin 21 to a position to permit the blade 25 to be moved to its working position and the detent pin 21 then slides into engagement in the notch 32 to hold the blade 25 in the working position.

It will be noted that the eye 33 is disposed completely within the slot 12 when the blade 25 is in position for cutting so that the blade 25 cannot be mounted on the snap hook (not shown) of the tool holster.

When it is desired to move the blade 25 to closed position, the enlarged heads 22 on the detent bar 21 are again moved along the slots 23 to release the bar 21 from its engagement in the notch 32. The blade 25 can be then swung to closed position. As the blade 25 approaches closed position the cam portion 30*a* along the notch 30 forces the detent bar 21 to a position to permit the same to engage in the notch 30. With the detent bar 21 engaged in the notch 30 the blade 25 is held with its end part 27 in the recess 31, as before.

I claim:

1. A lineman's knife comprising an elongated body portion with a slot extending inwardly from one end thereof, a pivot pin carried by said body and extending in transversely intersecting relation to said slot, an elongated blade having a portion intermediate its ends pivotally carried by said pivot pin, said blade at one end and at one side of said pivot pin having a terminal eye, said blade having a side marginal edge provided with a cutting edge portion disposed therealong and extending from the other end, said side marginal edge on opposite sides of said pivot pin having notches extending inwardly therefrom, a detent bar slidably carried by said body in transversely intersecting relation to said slot and movable longitudinally of said body, said detent bar being selectively engageable in one of said notches for locking said blade selectively in open and closed positions, and a resilient member in said body portion for urging said detent bar into locking engagement, said detent bar having portions exteriorly accessible on said body portion for releasing movement of the same, said blade in locked closed position having said terminal eye exteriorly disposed with respect to said body and in locked open position having said terminal eye disposed interiorly with respect to said body.

2. A lineman's knife as defined in claim 1 in which said body has a recess for the reception of said other end of said blade in locked closed position.

3. A lineman's knife as defined in claim 1 in which said blade is of J shape and said body has a recess for the reception of the other end of said blade in locked closed position.

4. A lineman's knife as defined in claim 1 in which said body has a longitudinal bore therein extending inwardly from the other end thereof intersecting said slot and said resilient member is disposed therein.

5. A lineman's knife as defined in claim 1 in which said body has a longitudinal bore therein extending inwardly from the other end thereof intersecting said slot and a bifurcated pin is provided movable in said bore and in which said detent bar is carried and with which said resilient member is in engagement.

6. A lineman's knife as defined in claim 1 in which said body has a longitudinal bore therein extending inwardly from the other end thereof intersecting said slot, a bifurcated pin is provided movable in said bore and on one end of which said detent bar is carried, said bore has a compression coil spring therein in engagement with the other end of said detent pin, and a spring abutment plug is provided at the outer end of said bore in engagement with said spring.

7. A lineman's knife as defined in claim 1 in which one of said notches extends diagonally inwardly from said side marginal edge and towards said pivot pin.

8. A lineman's knife as defined in claim 1 in which the notch adjacent the terminal eye extends inwardly from said side marginal edge and then longitudinally of said blade towards said pivot pin.

9. A lineman's knife comprising an elongated body portion with a slot extending inwardly from one end thereof, a pivot pin carried by said body and extending in transversely intersecting relation to said slot, an elongated blade having a portion intermediate its ends pivotally carried by said pivot pin, said blade at one end and at one side of said pivot pin having a terminal eye, said blade being of substantially J-shape and pointed at the other end and having its concave side marginal edge provided with a cutting edge disposed therealong, said blade on the terminal eye side of said pivot pin having an aperture proximate said side marginal edge, a detent member slidably carried by said body, said detent member being engageable in said aperture for locking said blade in open position, and a resilient member in said body portion for urging said detent member into locking engagement, said detent member having a portion exteriorly accessible on said body portion for releasing movement of the same, said blade in locked position having said terminal eye inaccessibly disposed interiorly with respect to said body.

10. A lineman's knife as defined in claim 9 in which said blade on the pointed end side of said pivot pin has a second aperture proximate said side marginal edge, and said detent member is engageable in said second aperture for selectively locking said blade in closed position.

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