Sept. 4, 1956 W. F. GRANT 2,761,211

CABLE SLITTER

Filed April 14, 1955

Fig. 1

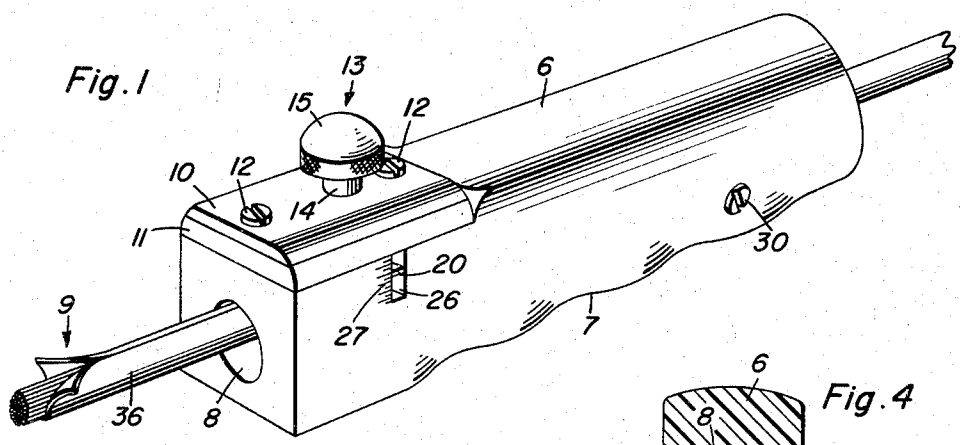


Fig. 4

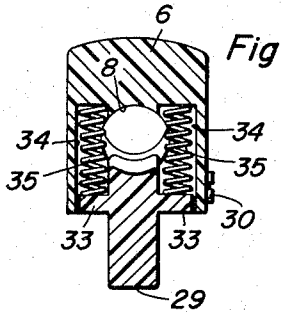


Fig. 2

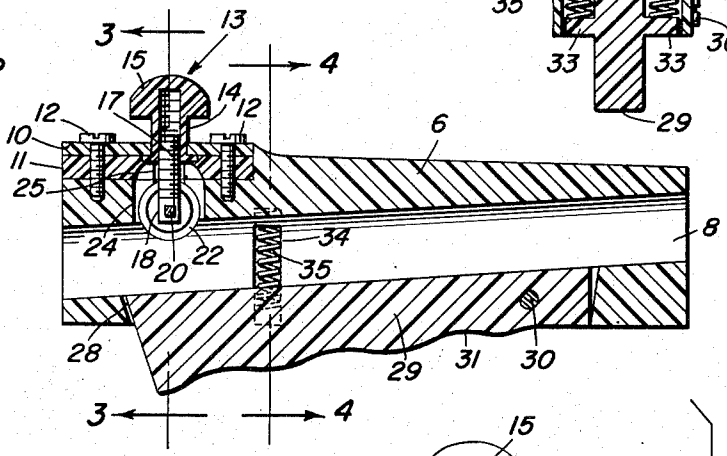


Fig. 3

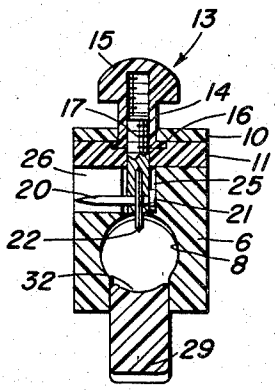
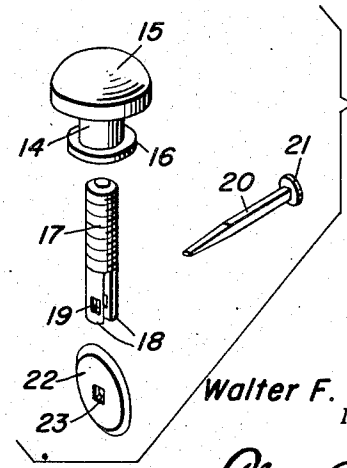


Fig. 5



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CABLE SLITTER

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6 Claims. (Cl. 30—91)

The present invention relates to new and useful improvements in cable slitters, or strippers, and has for its primary object to provide, in a manner as hereinafter set forth, a hand tool comprising novel means for expeditiously slitting with a minimum of effort any desired portion of the non-metallic armor or sheaths found on power, telephone and other cables.

Another very important object of the invention is to provide a tool of the aforementioned character which will accommodate various sizes of cables within a given range and which, further, may be expeditiously and accurately adjusted to slit armor of different thicknesses.

Still another important object of the invention is to provide a cable slitter of the character described comprising a stationary but rotatably adjustable cutting disk whereby a new edge portion may be brought into position for use when desired.

Other objects of the invention are to provide a cable slitter of the character set forth which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, light in weight and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view, showing a cable slitter constructed in accordance with the present invention in use;

Figure 2 is a view in vertical longitudinal section through the device;

Figure 3 is a cross-sectional view, taken substantially on the line 3—3 of Figure 2;

Figure 4 is a cross-sectional view, taken substantially on the line 4—4 of Figure 2; and

Figure 5 is a perspective view of the cutting unit, showing the parts separated.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises an elongated body **6** of suitable insulating material, said body being of a shape and dimensions to be firmly and comfortably gripped in the hand. Toward this end, the side portions of the lower portion of the body **6** are provided with finger receiving undulations or recesses **7**. Extending through the body **6** from end to end thereof is a forwardly inclined bore **8** for the reception of a cable to be split, as at **9**.

Upper and lower plates **10** and **11**, respectively, of plastic or other suitable material are recessed into the upper forward end portion of the body **6** and secured by screws **12**. An adjustable cutting unit **13** is mounted on the plates **10** and **11**. The unit **13** includes an internally threaded tube or sleeve **14** which is journaled in an opening provided therefor in the plate **10** and which is provided on its upper end with an operating knob or head **15**. At its lower end, the sleeve **14** comprises an external flange **16** which is engaged between the plates **10** and **11** for rotatably securing said sleeve in position.

The cutting unit **13** further includes a shank **17** which is threaded for adjustment in the sleeve **14** and which depends therefrom into the body **6**. The lower end portion of the shank **17** is longitudinally slotted to provided bifurcations **18** having aligned square openings **19** therein. The openings **19** are for the reception of a removable, rotatably adjustable, square indicating pin **20** having a head **21** on one end. Mounted on the indicating pin **20** between the bifurcations **18** is a cutting disk **22**. The disk **22** comprises a square centrally located opening **23** which accommodates the indicating pin **20**. The construction and arrangement, it will be observed, is such that the disk **22** is positively held against rotation.

The disk **22** is adjusable in a slot **24** in the upper portion of the body **6** and the lower plate **11**, said slot communicating with the bore **8** and including an enlarged intermediate portion **25** which accommodates the shank **17**. The indicator pin **20** is operable in a lateral groove or channel **26** in the upper portion of the body **6** which communicates with the intermediate portion **25** of the slot **24**. The indicator pin **20** is cooperable with a scale **27** on the body **6** immediately adjacent the slot or channel **26**.

The body **6** has formed longitudinally in the lower portion thereof a slot **28** which communicates throughout its length with the bore **8**. A finger operated pressure bar **29** is pivotally mounted, as at **30**, on the body **6** and operable in the slot **28** for engaging the cable **9** with the cutting disk **22**. The exposed lower portion of the bar **29** is provided with finger receiving undulations or recesses **31**. The pressure bar **29** still further includes an inner face **32** of arcuate cross-section for engagement with the cable **9**.

Adjacent the forward end thereof, lugs **33** project laterally from the bar **29**. The lugs **33** are operable in recesses or notches **34** in the side walls of the slot **28** and the bore **8**. The recesses **34** also accommodate coil springs **35** which are engaged with the lugs **33** for yieldingly urging the bar **29** outwardly to inoperative position on the body **6**.

It is thought that the operation or use of the device will be readily apparent from consideration of the foregoing. Briefly, the portion of the cable **9** to be stripped is inserted in the bore **8** from the forward end of the body **6**. The cutting disk **22** is then set or adjusted for the thickness of the sheath or armor **36** of the cable **9** by turning the sleeve **14** in an obvious manner. Correct adjustment of the cutting disk may be facilitated by reading the indicator **20** against the scale **27**. The indicator **20** travels in the slot or channel **26**. The slot **24** prevents the cutting disk **22** from turning with the sleeve **14**. With the fingers of the hand which grips the body **6**, the bar **29** is then swung upwardly in said body against the tension of the coil springs **35** for pressing the cable against the cutting disk **22**. In this manner the cutting disk **22** is caused to penetrate the sheath or armor of the cable. The cable **9** is then pulled outwardly or forwardly for causing the cutting disk **22** to longitudinally split the sheath or armor **36** of said cable. When the portion of the cutting disk **22** which is in use becomes worn or dull, the unit **13** is removed from the body **6** by unscrewing the screws **12**. The indicator pin **20** may now be removed from the shank **17** to permit the cutting disk **22** to be rotatably adjusted to bring a new or unused portion of the edge thereof into position for use.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those

skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A cable armor slitter of the character described comprising: a body having a bore therein for the reception of a cable, a cutting disk in the bore for slitting the cable, and a bar pivotally mounted on the body and operable in the bore for engaging the cable with said disk.

2. A cable armor slitter comprising: an elongated body to be gripped in the hand, said body having a bore extending longitudinally therethrough for the reception of a cable and further having a longitudinal slot therein communicating with the bore, a cutter mounted in the bore, and a bar, operable by the fingers of the hand which grips the body, pivotally mounted in the slot and engageable with the cable for engaging said cable with the cutter.

3. A cable slitter comprising: an elongated body having a bore extending longitudinally therethrough for the reception of a cable, said body further having a longitudinal slot therein communicating with the bore and still further having recesses therein on opposite sides of the slot and the bore and communicating therewith, a cutter mounted in the bore, a manually operable bar pivotally mounted in the slot and engageable with the cable for engaging said cable with the cutter, lateral lugs on the bar operable in the recesses, and coil springs in the recesses engaged with said lugs for disengaging the bar from the cable.

4. A cable slitter comprising: a body having a bore therein for the reception of a cable, a sleeve rotatably mounted on said body, a shank threadedly mounted for adjustment in the sleeve and projecting therefrom into the body, a stationary cutting disk on said shank projecting into the bore, and a bar pivotally mounted on the body for engaging the cable with the cutting disk.

5. A cable slitter comprising: a body having a bore therein for the reception of a cable, a sleeve rotatably mounted on said body, a shank threadedly mounted for adjustment in the sleeve and projecting therefrom into the body, a stationary cutting disk on said shank projecting into the bore, and means for engaging the cable with the cutting disk, said body having a slot therein communicating with the bore, said means including a bar pivotally mounted in the slot in opposed relation to the cutting disk and engageable with the cable for engaging said cable with said cutting disk.

6. A cable slitter comprising: a body having a bore therein for the reception of a cable and further having a channel therein, a sleeve rotatably mounted on said body, a shank threadedly mounted for adjustment in the sleeve and projecting therefrom into the body, said shank including bifurcations on its inner end having polygonal openings therein, a polygonal indicator pin removably mounted in the openings and operable in the channel, a stationary cutting disk removably mounted on the indicating pin between the bifurcations and having a polygonal opening therein accommodating said indicating pin, said disk projecting into the bore, and means for engaging the cable with the cutting disk, said body having a scale thereon adjacent the channel.

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