

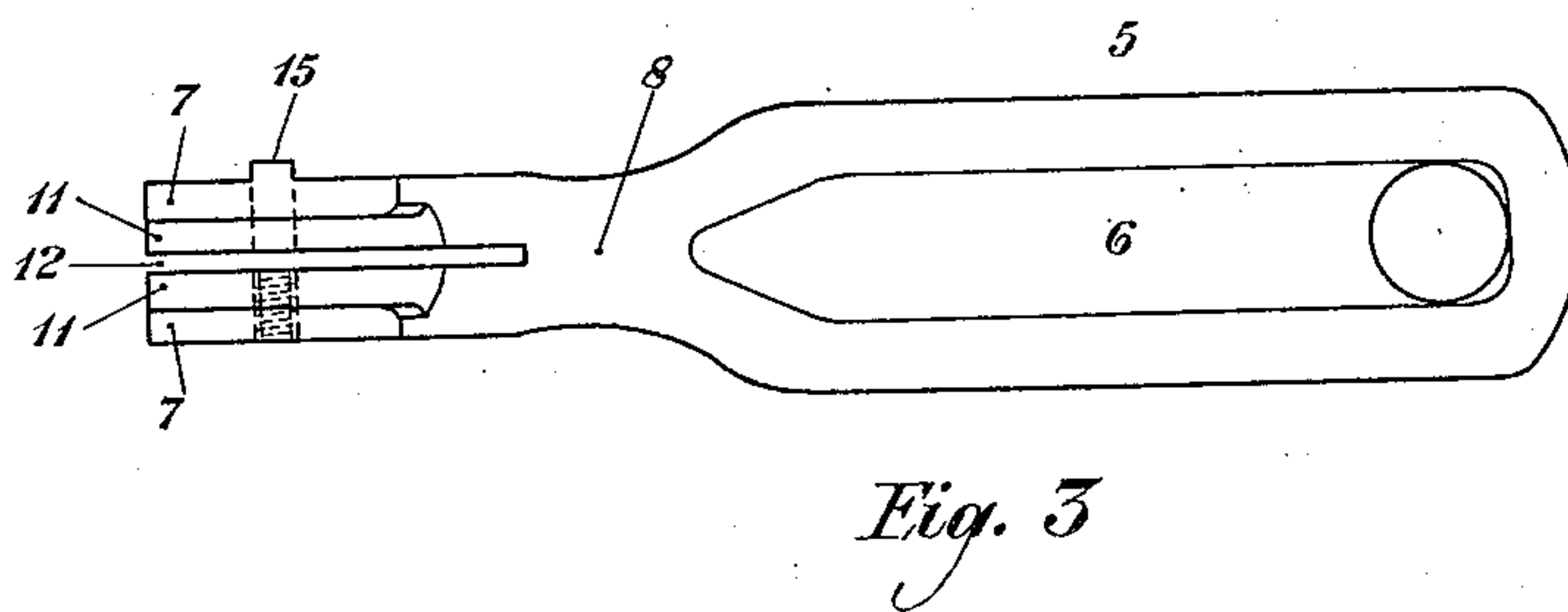
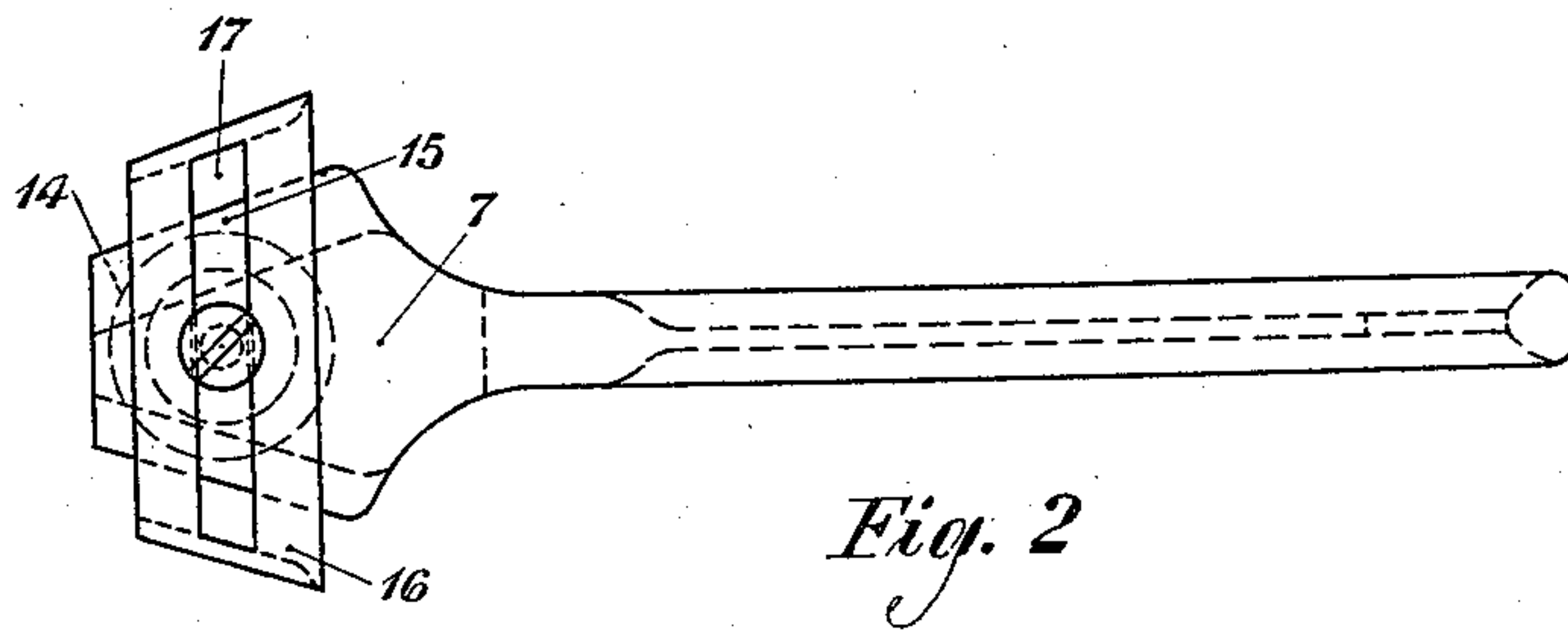
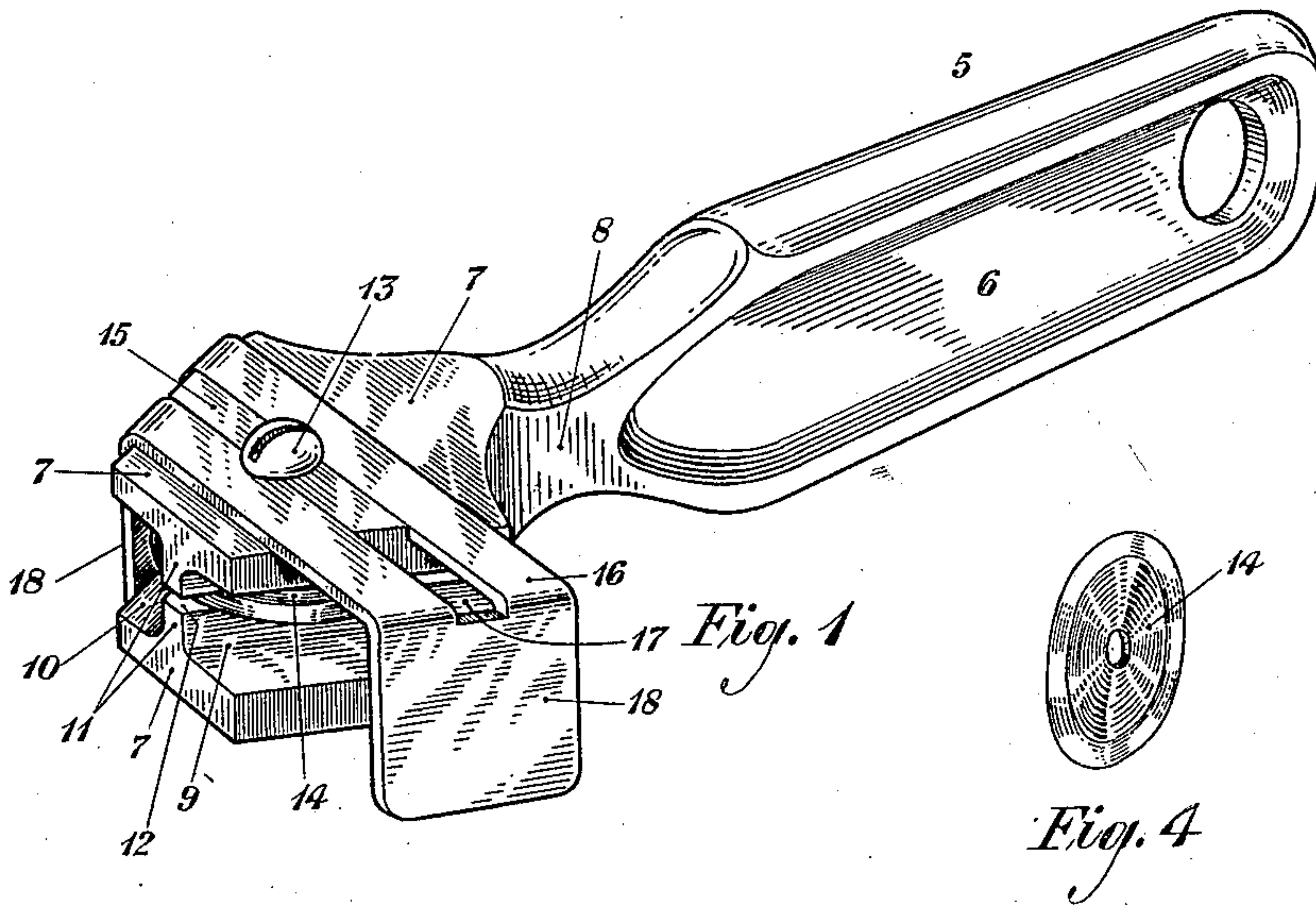
March 27, 1928.

1,663,748

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BRAID STRIPPER FOR INSULATED WIRES

Filed Oct. 10, 1925



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BRAID STRIPPER FOR INSULATED WIRES.

Application filed October 10, 1925. Serial No. 61,767.

This invention relates to implements in the nature of braid strippers for use with electric conductors.

An object of the invention is to provide a tool of the character mentioned, which is particularly designed to facilitate a quick and easy method of slitting the outer envelope or insulating covering of double or twin conductors prior to removing said cover.

A further object consists in the provision of an implement of high efficiency, and one which is durable, simple of construction and of low cost to manufacture.

These and further objects will be apparent from the following description, when considered in connection with the accompanying drawing, in which one embodiment of the invention is illustrated.

In the drawing Figure 1 is a perspective view of the improved device; Fig. 2 is a side elevation thereof; Fig. 3 is a top plan view with the guard removed; and Fig. 4 is a view of the circular cutter which is used with the device.

Referring to the drawing, the numeral 5 represents a handle; in the present instance shown as having a substantially flat rectangular surface with depressed sides 6, so formed that an easy gripping arrangement is afforded. The handle 5 and its components may be composed of some light and durable material such as forged duralumin, and one end thereof may be rounded, while near the opposite or enlarged end or head portion, tapered portions may be provided. The head portion in side elevation is in the form of a truncated pyramid. The tapered portions connect the handle 5 with parallel flat surfaces 7, the edges of which may extend from the square outer end of the enlarged end in an angular direction from each other. The flat surfaces 7 lie at right angles to the flat surfaces of the handle, and the connecting surfaces 8 between the depressed sides 6 and the ends of the flat surfaces 7, are rounded in the form of arcs to conform to the shape of the top of the forefinger which is applied thereto during the operation of the tool, as will later appear.

The flat plates 7 have two grooves 9 and 10 formed between their inner faces on

either side of a partition 11, which lies centrally of said grooves. These grooves are preferably of different dimensions for use with two sizes or types of insulated wire, and the channels formed by said grooves diverge from the square outer end of the enlarged head so their direction follows the angular direction of the outer edges of the flat surfaces 7. The bottom of each groove is formed along a line at an angle to the longitudinal projection of the handle. The divergence of the channels permits the wire to be drawn therethrough without interfering with the hand holding the device. The partition 11, between the grooves or channels, therefore, increases in diameter and thickness as it advances toward the handle 5, as more clearly shown by dotted lines in Fig. 2 of the drawing, and its sides may be slightly rounded to facilitate the passage of wire through the grooves.

A slot 12 is cut centrally of the partition 11 and extends therethrough from one groove to the other. A threaded opening through the enlarged head is provided for the reception of a screw 13. This screw serves to position a cutting element in the form of a circular blade or knife 14, which lies centrally of the slot 12 with its cutting edge extending through the partition 11 a sufficient distance into the grooves formed on either side thereof to be serviceable in removing braid from double conductors, as will be presently described. The tightening of the screw 13 causes the members 7 to be forced towards each other to hold the circular blade 14 clamped in the slot 12, in a stationary position. By loosening the screw the circular blade may be turned around to present a new cutting surface as desired, or may be entirely removed in an obvious manner and a new knife substituted.

An embossed bar portion, rib or tongue 15 is provided on top of one of the members 7 and lies in a transverse position thereon, as may be more clearly seen in Fig. 3. The portion 15 has a safety guard or holding member 16 associated with it in such manner that the inner edges of a longitudinal slot 17 in the guard member slidably engage the outer edges of the portion 15 and permit reciprocal movement of the guard member on the head member. The wings or

flanged sides 18 of the guard member 16 extend downwardly a sufficient distance to abut the angular edges of the lower flat plate member 7, which lies opposite to the companion plate member on which the guard is mounted. Both of the wings or depending flanged sides 18 of said guard member are of an angular formation to correspond to the angular form of the edges of the members 7 so that they lie parallel therewith. When pressed against these edges, the wing portions of the guard or holding member cover the groove formed therebetween and allow a sufficient space for the insertion of wires into the grooves. The wing portions serve to retain the insulated conductors in position in the groove. The hole in which the screw 13 is threaded lies centrally of the embossed portion 15, and the head of said screw overlaps the longitudinal slot provided in the guard and keeps it in position.

In using the device the twin wires to be separated are placed in one or the other of the grooves as the case may be, with the circular blade extending through the braid or covering between the parallel twin wires. The operator holding the instrument in hand applies his thumb or finger to the guard and slidingly moves it in a direction to cause one of the wings or flanged sides of the guard to be associated with the groove in which the wires are positioned, to cover said groove. When so positioned, the guard serves to provide a convenient means for frictionally holding the wires in the groove against said blade while the wires and improved device are being moved relative to each other. The guard also protects the workman from cutting himself on the circular blade after the wire is pulled through.

After the twin wires are inserted in one of the grooves, the tool is then pulled along the wires, thereby splitting the braid so that it can be easily removed. The circular blade and grooves are so arranged with respect to each other that the passage of the tool is accurately guided through the wires on the cutting edge of the circular blade to evenly cut the braid or envelope covering the wires without damage to the rubber insulation on each wire. By this means the insulation covering the individual wires of a pair is undisturbed and the usual method of separating the wires by a knife blade or like instrument, which results in cutting or bruising said wires and requires the application of other insulation thereto is obviated.

While there is shown and described herein one preferred form of the invention by way of illustration, it is understood that it is not limited or confined to the precise details of construction herein described and delineated, as modification and variation may be

made within the scope of the claims without departing from the spirit of the invention.

What is claimed is:

1. A braid stripper for insulated wires comprising a handle having a pair of grooves of different dimensions associated therewith, each groove being adapted to receive a pair of wires of different diameters, and a circular cutting blade extending into each groove for operating upon the insulation of said wires in their travel through both grooves. 75

2. A braid stripper for insulated wires comprising a handle having a pair of grooves of different dimensions associated therewith, a blade mounted intermediate said grooves having a cutting edge extending into either groove, and means reciprocally mounted on the handle and associated with said grooves for protecting the hand of an operator from the cutting edge of said blade. 85

3. A braid stripper for insulated wires comprising a handle having a pair of grooves of different dimensions associated therewith, a cutting blade intermediate said grooves having a cutting edge extending into either groove, and a safety guard reciprocally mounted on the handle and associated with said grooves for retaining said wires in position in said grooves and for protecting the hand of an operator from the cutting edge of said blade. 95

4. A braid stripper for double conductor insulated wires comprising a handle having a pair of grooves of different dimensions associated therewith, a circular knife blade mounted intermediate said groove and having its edge extending into either groove, a safety guard reciprocally mounted on the handle and associated with said grooves for retaining said wires in position in said grooves and for protecting the hand of an operator from the cutting edge of said blade, and means for retaining said guard and said knife member in position. 100

5. A braid stripper for wires having a common covering, a handle having a pair of grooves of different dimensions associated therewith, each groove being adapted for the passage therethrough of pairs of wires of different diameters longitudinally of said handle, and a circular knife intermediate said grooves having a cutting edge extending into either groove for slitting the common covering of the wires in their passage through the grooves. 110

6. A braid stripper for parallel wires having a common covering, a handle having a pair of grooves of different dimensions associated therewith, said grooves being adapted for the passage therethrough of wires longitudinally of said handle, a circular knife intermediate said grooves having a cutting edge extending into either groove for slitting the common covering of the wires 120

in their passage through the grooves, and means reciprocally mounted on the handle and associated with said grooves for retaining the wires positioned therein in their travel and for protecting the hand of the operator from the cutting edge of said knife.

7. A braid stripper for parallel wires having a common covering, a handle having a pair of grooves of different dimensions associated therewith, said grooves being adapted, respectively, for the passage there-through of pairs of wires of different sizes longitudinally of said handle, a circular knife intermediate said grooves having a cutting edge extending into either groove for slitting the common covering of the wires in their passage through the grooves, and a guard reciprocally mounted on said handle for retaining the wires in the grooves in engagement with said knife during their travel therethrough, and for protecting the hand of the operator from the cutting edge of said knife.

8. A device of the character described including in combination, a head having a groove formed therein, a cutting member positioned in said groove and a holding member slidably mounted on said head and adapted to press a wire into said groove and frictionally hold the same against said cutting member.

9. A device of the character described including in combination, a head having a groove formed therein, a cutting member positioned in said groove and a holding member slidably mounted on said head and adapted to press a wire into said groove and frictionally hold the same against said cutting member, said cutting member terminating below the sides of the head forming the groove.

10. A device of the character described including in combination, a handle, a head having a plurality of grooves of different dimensions formed therein to accommodate wires of different thicknesses, a cutting device provided for each groove and a holding member adapted to frictionally hold the wires in the grooves and against the cutting device.

11. A device of the character described including in combination, a handle, a head having a plurality of grooves formed therein, a cutting device provided for each groove and a holding member adapted to frictionally hold the wire in the grooves and against the cutting device, said holding member being provided with a flange or wing for manipulation by the thumb or finger of the operator to engage the wire.

12. A device of the character described including in combination, a handle, a head having a plurality of grooves formed therein, a cutting device provided for each groove and a holding member adapted to friction-

ally hold the wire in the grooves and against the cutting device, said grooves being of different depths and widths whereby wires of different diameters may be accommodated.

13. A device of the character described including in combination, a handle, a head, said head being in the form of a truncated pyramid and having a groove formed in each of its sides and substantially parallel to said sides, said head being slit or bifurcated, a cutting device positioned therein with the cutting edges extending into both of said grooves, a holding member slidably mounted on said head and having a wing or flange at each end operable by the thumb or finger of the operator whereby a wire may be frictionally held in said groove and against said cutting device.

14. A device of the character described including in combination, a handle, a head, said head being in the form of a truncated pyramid and having a groove formed in each of its sides and substantially parallel to said sides, said head being slit or bifurcated, a cutting device positioned therein with the cutting edges extending into both of said grooves, a holding member slidably mounted on said head and having a wing or flange at each end operable by the thumb or finger of the operator whereby a wire may be frictionally held in said groove and against said cutting device, said wings or flanges being arranged in a plane parallel to the plane of the inclined edges of the head.

15. A device of the character described including, in combination, a head having a groove formed therein, a cutting member secured to said head and having a cutting part positioned in said groove, a holding member slidably mounted on said head and having a wing or flange operable by the thumb or finger of the operator to bear against a wire and frictionally hold the wire in said groove against said cutting member while the wire and device are being moved relative to each other.

16. A device of the character described including, in combination, a head having a plurality of grooves of different dimensions formed therein, cutting means provided for each groove and extending thereinto, a holding member mounted to slide with reference to the head and having a wing or flange for each groove adapted to bear against the wire and frictionally hold the same in said groove and against said cutting means.

17. A device of the character described including, in combination, a head having a plurality of grooves formed therein, a single cutting device centrally positioned in said head and having part of its cutting edge disposed within each of said grooves, a holding member slidably mounted on said head and having a wing or flange for each of said

grooves adapted to be manually operated to bear against the wire within said groove and frictionally hold the same against the cutting device.

5 18. A device of the character described including, in combination, a head having a grooved formed in two of its sides, a single cutting device in the form of a disc positioned in said head and having part of its
10 cutting edge positioned in each of said grooves, a holding member slidably mounted with reference to said head and having a wing or flange for each groove operable manually to bear against a wire positioned
15 in said groove and frictionally hold the same against the cutting edge while the wire and device are moved relative to each other.

19. A device of the character described including, in combination, a handle, a head,
20 said head having a groove formed on each side thereof and the bottom of each groove being formed along a line at an angle to the longitudinal projection of the handle, a cutting device for each groove, a holding
25 member movably mounted on said head and having a wing or flange for each of said grooves, said holding member being of such length and the wings or flanges being so positioned as to project over said grooves
30 and at a distance therefrom to permit the ready insertion of wire into said grooves, said holding member being manually operated to permit the wings or flanges to engage the wire in the grooves and force the wire
35 against the cutting device.

20. A device of the character described including, in combination, a handle, a head,
40 said head having a groove formed on each side thereof and the bottom of each groove being formed along a line at an angle to the longitudinal projection of the handle, a single cutting device mounted in said head and having cutting parts projecting into each
45 of said grooves, a holding member movably mounted on said head and having a wing or flange for each of said grooves, said holding member being of such length and the wings

or flanges being so positioned as to project over said grooves and at a distance therefrom to permit the ready insertion of wire
50 into said grooves, said holding member being manually operated to permit the wings or flanges to engage the wire in the grooves and force the wire against the cutting device.

21. A device of the character described including, in combination, a handle, a head,
55 said head having a groove formed on each side thereof and the bottom of each groove being formed along a line at an angle to the longitudinal projection of the handle, a single cutting device in the form of a disc having a sharpened edge centrally
60 mounted in said head with parts extending into each of said grooves, a holding member movably mounted on said head and having a wing or flange for each of said grooves, said holding member being of such length and
65 the wings or flanges being so positioned as to project over said grooves and at a distance therefrom to permit the ready insertion of wire into said grooves, said holding member being manually operated to permit the
70 wings or flanges to engage the wire in the grooves and force the wire against the cutting device.
75

22. A device of the character described including, in combination, a head having a
80 guideway formed therein to receive a wire, a cutting member secured to said head and having a cutting part position in said guideway, a holding member provided with an elongated slot, a rib or projection on said head over which said elongated slot fits to
85 form a guiding means for said holding member, said holding member having means adapted to be moved into engagement with a wire in said guideway and to hold said wire against said cutting member.

In testimony whereof, we have signed our names to this specification this 9th day of
90 October 1925.

HUGH D. BENDER.
ROBERT JOHN KENT.