Aug. 4, 1964 J. A. FREEMAN 3,143,013

WIRE STRIPPER WITH LONGITUDINALLY OFFSET CUTTING EDGES

Filed Jan. 21, 1963

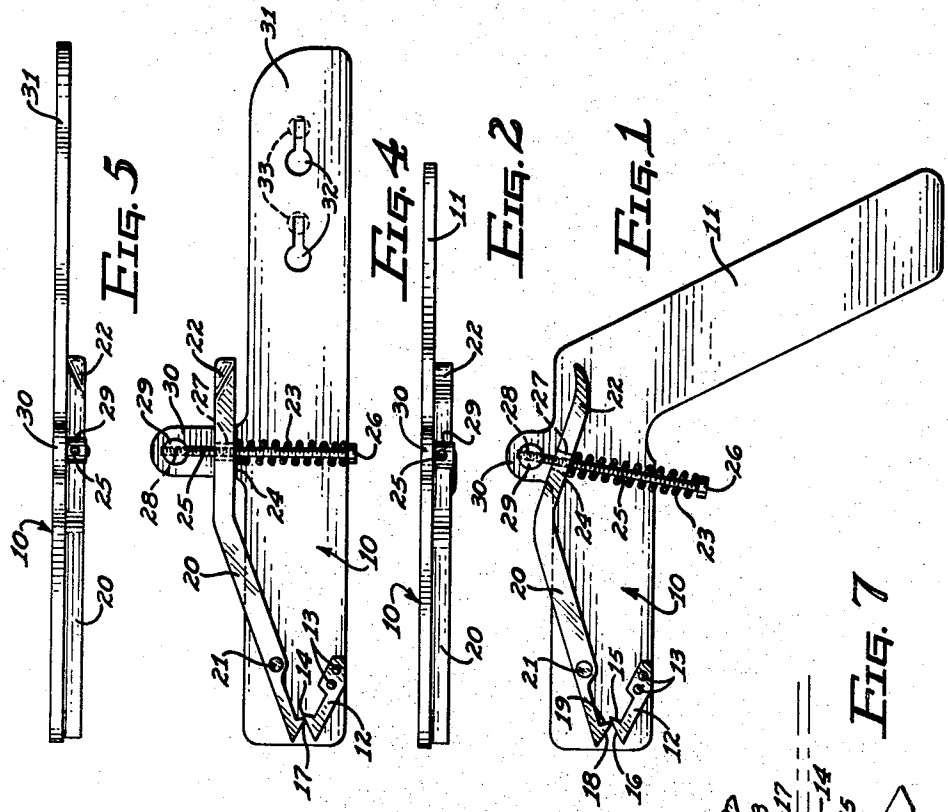


FIG. 5

FIG. 4

FIG. 2

FIG. 1

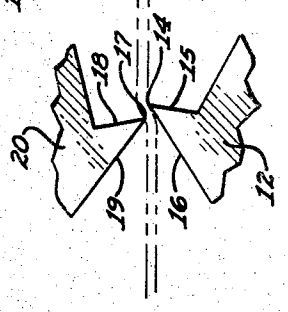


FIG. 7

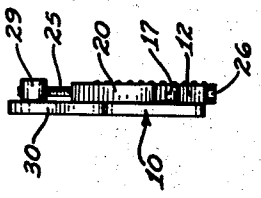


FIG. 6

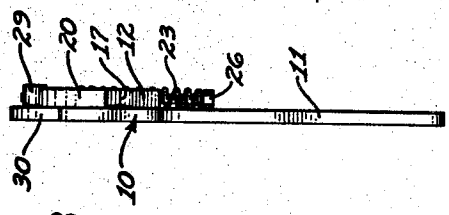


FIG. 3

INVENTOR.
JOHNES A. FREEMAN.
BY
Willard S. Grimes
ATTORNEY.

United States Patent Office

3,143,013

Patented Aug. 4, 1964

3,143,013

WIRE STRIPPER WITH LONGITUDINALLY OFFSET CUTTING EDGES

Johnes A. Freeman, 3607 W. Alice, Phoenix, Ariz.

Filed Jan. 21, 1963, Ser. No. 252,648

2 Claims. (Cl. 81—9.5)

This invention pertains to wire strippers and is particularly directed to a device for stripping the insulation from electric wire.

One of the objects of this invention is to provide a wire stripper which is simple in construction and operation.

Another object is to provide a wire stripper requiring a minimum of skill and effort to operate in stripping the wire.

A further object of this invention is to provide a wire stripper which is readily adapted to strip various sized wires without any critical adjustment being required.

And it is still another object to provide a wire stripper which automatically applies the proper stripping pressure on the wire as the wire is being stripped.

Further features and advantages of this invention will appear from a detailed description of the drawings in which:

FIG. 1 is a side elevation of a hand held wire stripper, incorporating the features of this invention.

FIG. 2 is a plan view of the wire stripper shown in FIG. 1.

FIG. 3 is a front end elevation of the wire stripper shown in FIG. 1.

FIG. 4 is a side elevation of support mounted wire stripper incorporating the features of this invention.

FIG. 5 is a plan view of the wire stripper shown in FIG. 4.

FIG. 6 is an end elevation of the wire stripper shown in FIG. 4.

FIG. 7 is an enlarged fragmentary view of the cutting edges.

As an example of one embodiment of this invention, there is shown, FIGS. 1, 2 and 3, a hand held wire stripper comprising the frame **10** having the integral grip handle **11**. Fixed to the frame **10** is the lower anvil piece **12** rigidly held in place by any suitable means such as the rivets **13**. A cutting edge **14** is formed by the faces **15** and **16** on the anvil piece **12**.

The movable cutting edge **17** is formed by the faces **18** and **19** of the pressure arm **20** pivotally mounted on a suitable pin **21** carried in the frame **10**. The rear portion of the pressure arm **20** has a thumb engaging trigger portion **22**. The portion **22** is normally yieldingly moved upwardly to move the cutting edge **17** toward the cutting edge **14** by a compression spring **23** which engages the underside **24** of the arm **20** and is carried on a bolt **25** having a head **26** engaging the other end of the spring **23**. The bolt **25** passes through a clearance hole **27** in the arm **20** and is threaded in a bore **28** of a pin **29** mounted in the upstanding integral boss **30** of the frame **10**.

The arrangement shown in FIGS. 4, 5 and 6 is similar to that shown in FIGS. 1, 2 and 3 except that the frame **10** is provided with an integral mounting shank **31** instead of the grip handle **11**. Keyhole slots **32** are formed in the shank **31** to be hooked around nail or screw heads **33** carried in a suitable rigid support.

In use: The operator grabs the grip handle **11**, FIGS. 1, 2 and 3, in the right hand and depresses the trigger portion **22** with a finger of the right hand. The wire to be stripped is placed on the anvil cutting edge **14** from the left with the desired length of wire to be stripped extending to the right of the cutting edge **14**, FIG. 1. The trigger **22** is then released and the wire pulled outwardly to the left as the cutting edge **17** is held against it by the pressure of the spring **23** which is just sufficient to strip the insulation without in any way damaging of marring the wire.

The operation of the arrangement of FIGS. 4, 5 and 6 is the same as in FIGS. 1, 2 and 3 except that the nails or screws **33** take up the pull as the wire is pulled out to the left, FIG. 4. In both arrangements it is preferable to have the cutting edge **17** slightly to the rear of cutting edge **14**, as best seen in FIG. 7. This prevents direct contact of the cutting edges so as to preserve their keen edges and also provide a better stripping action since the edges **14–17** are not diametrically opposite each other during the actual stripping operation, resulting in a more efficient insulation removal with less effort being required.

While the apparatus herein disclosed and described constitutes a preferred form of the invention, it is also to be understood that the apparatus is capable of mechanical alteration without departing from the spirit of the invention and that such mechanical arrangement and commercial adaptation as fall within the scope of the appendent claims are intended to be included herein.

Having thus fully set forth and described this invention what is claimed and desired to be obtained by United States Letters patent is:

1. A wire stripper comprising in combination:
   (*a*) a frame,
   (*b*) a transverse cutting edge fixed on said frame,
   (*c*) a transverse movable cutting edge mounted on said frame for movement relative to said fixed cutting edge in a path of travel located to the rear of said fixed cutting edge so as to avoid direct contact between said cutting edges,
   (*d*) means between said frame and said movably mounted cutting edge to normally yieldingly urge said movably mounted cutting edge relative to said fixed cutting edge,
   (*e*) a grip handle fixed to said frame,
   (*f*) and a thumb actuated device associated with said movably mounted cutting edge for moving said movably mounted cutting edge relative to said fixed cutting edge when inserting and stripping a wire between said cutting edges.

2. A wire stripper comprising in combination:
   (*a*) a frame,
   (*b*) a transverse cutting edge fixed on said frame,
   (*c*) a transverse movable cutting edge mounted on said frame for movement relative to said fixed cutting edge in an arcuate path of travel located rearwardly of said fixed cutting edge so as to laterally deflect the wire during the stripping operation to facilitate removal of insulation therefrom,
   (*d*) means between said frame and said movably mounted cutting edge to normally yieldingly swing said movably mounted cutting edge relative to said fixed cutting edge,
   (*e*) a combined mounting shank and grip handle fixed to said frame having a plurality of keyhole slots for

securing said frame against the pull on the wire during the stripping operation,

(*f*) and a thumb actuated device associated with said movably mounted cutting edge for swinging said movably mounted cutting edge away from said fixed cutting edge when inserting and stripping a wire to be stripped between said cutting edges.

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