

April 20, 1948.

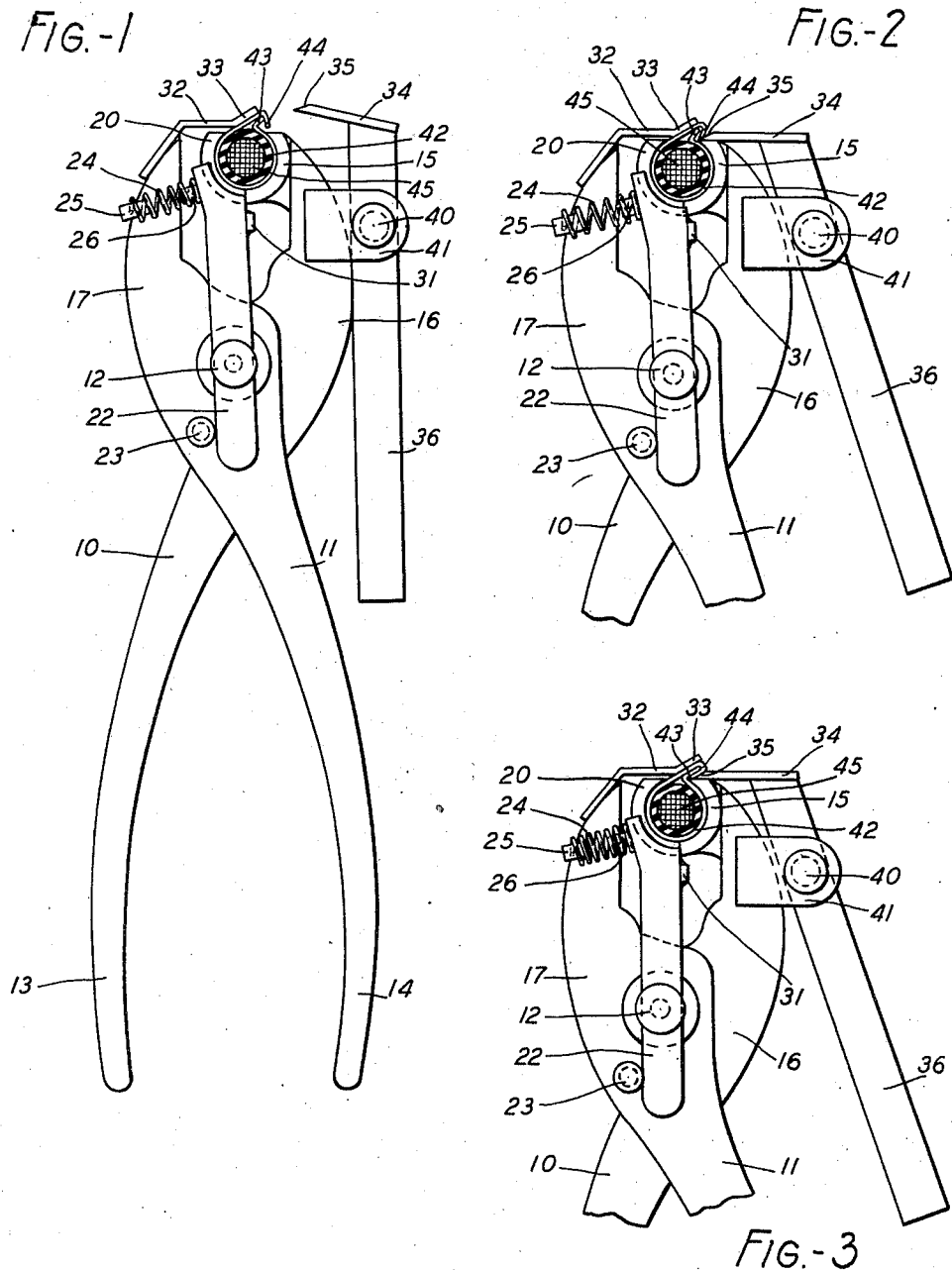
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2,440,040

APPARATUS FOR APPLYING TAGS TO ARTICLES

Filed Sept. 8, 1944

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

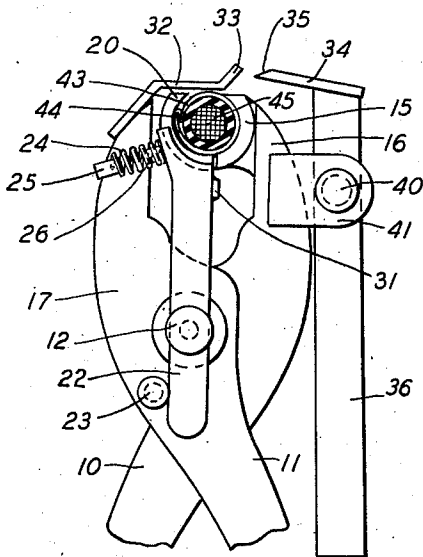


FIG.-4

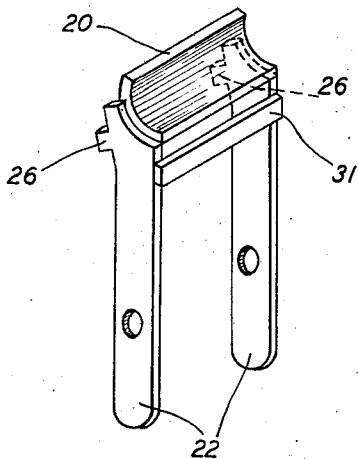


FIG.-7

FIG.-5

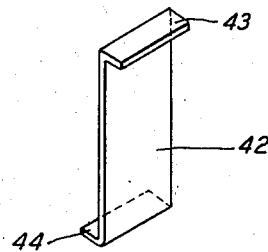
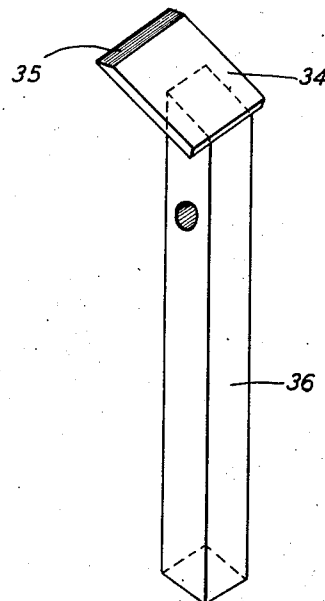


FIG.-6

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UNITED STATES PATENT OFFICE

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APPARATUS FOR APPLYING TAGS TO ARTICLES

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2 Claims. (Cl. 81-15)

1

This invention relates to apparatus for applying tags to articles, and more particularly it relates to apparatus for applying tags to insulated conductors.

An object of the invention is to provide new and improved apparatus for applying tags to articles.

One device embodying the invention comprises a pair of relatively movable members for pressing a band around an article positioned therebetween, and means for securing together the ends of a band pressed around an article to secure the band on the article.

A complete understanding of the invention may be obtained from the following detailed description of a specific embodiment thereof, when read in conjunction with the appended drawings, in which:

Fig. 1 is a top plan view of a device embodying the invention;

Fig. 2 is a fragmentary, top plan view of the device with the elements thereof in positions different from those shown in Fig. 1;

Fig. 3 is a fragmentary, top plan view of the device with the elements thereof in still different positions;

Fig. 4 is a fragmentary, plan view of the device with the elements thereof in yet different positions;

Fig. 5 is a perspective view of a tag of the type applied by the device to insulated conductors;

Fig. 6 is a perspective view of an element of the device, and

Fig. 7 is a perspective view of a second element of the device.

Referring more in detail to the drawings, a pair of lever members 10 and 11 (Fig. 1) pivotally secured together by a pin 12 are provided with handle portions 13 and 14, respectively. An arcuate clamp 15 is secured rigidly to a jaw 16 formed on the lever member 10. A jaw 17 is formed on the end of the lever member 11.

An arcuate clamp 20 (Fig. 7), which is complementary to the arcuate clamp 15, is secured on the ends of a pair of arms 22-22, which are pivotally mounted on the pin 12. The movement of the arms relative to the lever member 11 is limited by a stop 23 secured to the lever member 11. A spring 24 is mounted between a boss 25 formed on one side of the jaw 17 and a boss 26 formed on one of the arms 22-22. Another spring is similarly mounted between similar bosses on the other side of the jaw 17 and the other arm 22. The springs serve to urge the arms in a clockwise direction, as viewed in Fig. 1, until one of the

2

arms 22-22 is engaged by the stop 23 which prevents further movement of the arms.

A forming plate 32 (Fig. 1) having a bevelled end 33 is secured to the jaw 17. A crimping plate 34 (Fig. 6) having a bevelled surface 35 formed thereon is secured on the end of a lever 36. The lever 36 is pivotally mounted on the jaw 16 by a pin 40 projecting through a bracket 41 secured to the jaw 16.

In the operation of the device described hereinabove, a tag 42 (Fig. 5) having offset tabs 43 and 44 is bent around an insulated conductor 45, and the tag 42 and the conductor 45 then are placed between the clamps 15 and 20. The handles 13 and 14 then are drawn together to urge the clamps 15 and 20 tightly against the tag 42, whereby the tag 42 is formed tightly around the conductor 45. The handles 13 and 14 then are drawn closer together and the bevelled end 33 of the forming plate 32 engages the tag near the tab 44 and moves the tab 44 over the tab 43, as shown in Fig. 1. The crimping plate 34 then is moved against the upper end of the clamp 15, and as the plate is so moved it engages the end of the tab 44 and tucks the tab 44 over the tab 43, as shown in Fig. 2. The handles 13 and 14 then are drawn more closely together, which causes the forming plate 32 to be thrust to the right and the bevelled end 33 to bend the tab 44 to the position shown in Fig. 3. The tabs 43 and 44 now are held securely together but project outwardly somewhat from the periphery of the tag 42.

The clamps 15 and 20 then are opened and the conductor 45, the tag 42 secured therearound are rotated, and the clamps 15 and 20 are brought together to bend the tabs 43 and 44 to positions parallel with the adjacent portions of the periphery of the tag 42. If necessary, the handles 13 and 14 may be drawn together enough that the jaw 17 engages the clamp 20 positively and exerts a positive force against the clamp 20 to form the tabs 43 and 44, as just described.

The above described device serves to clamp tags to insulated conductors rapidly and efficiently. Tags secured on conductors by this device are of uniform neatness.

What is claimed is:

1. A pair of pliers for applying bands to insulated conductors, which comprises a pair of arcuate clamps, a lever member having one of the clamps rigidly secured to an end thereof, a second lever member having the other clamp resiliently mounted on an end thereof, means for securing the lever members together for pivotal

3

movement with respect to each other, a crimper pivotally mounted on the first-mentioned lever member for securing together the ends of a band clamped by the clamps around an insulated conductor, and a forming plate secured rigidly to the second lever member for moving one end of the band over the other prior to securing said ends together and for forming the ends of the band after they have been secured together by the crimper.

2. A pair of pliers for applying bands to insulated conductors, which comprises an arcuate clamp, a second arcuate clamp, a lever member having the first-mentioned clamp rigidly secured to an end thereof, a second lever member pivotally secured to the first-mentioned lever member, a pair of arms for pivotally mounting the second arcuate clamp between the lever members, means for urging the second arcuate clamp from the second lever member to clamp between the clamps a band around an insulated conductor, a crimper pivotally secured to the first-mentioned lever for partially securing together the ends of a band clamped around an insulated conductor, and means rigidly secured to the second lever member for moving one end of the band over the other

4

prior to securing said ends together and for completely securing together the ends of the band after they have been partially secured by the crimper.

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