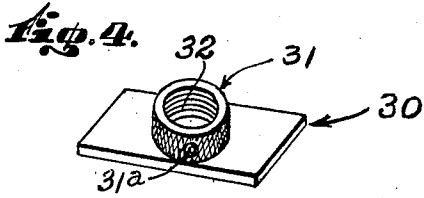
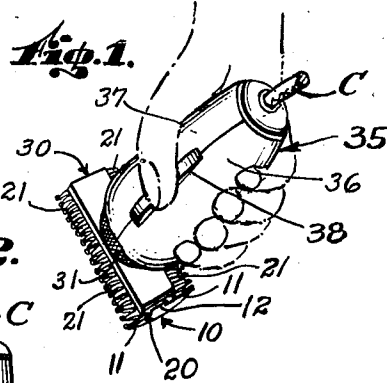
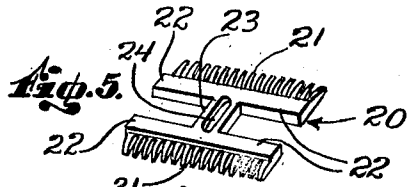
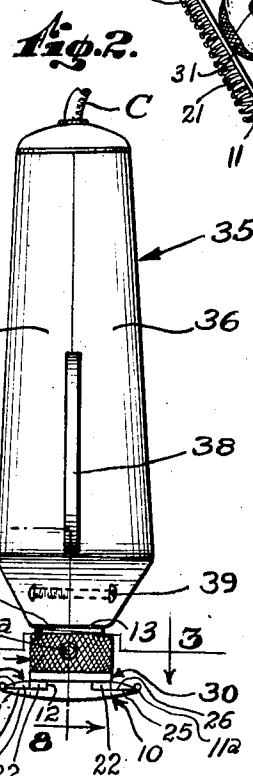
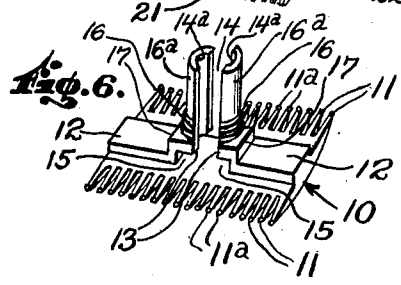
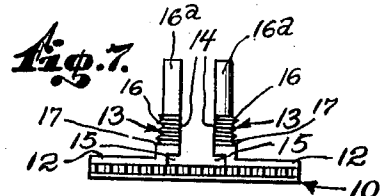
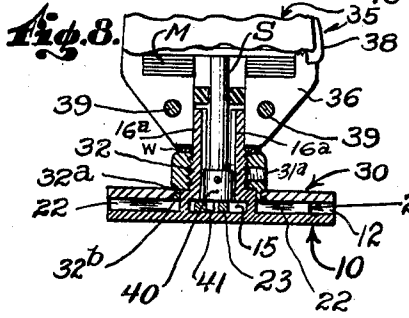
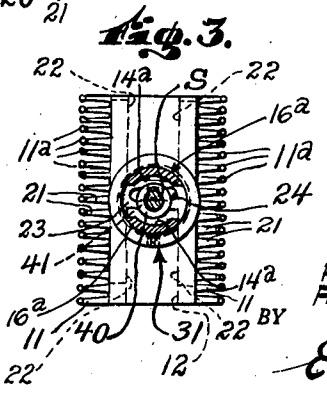


Oct. 26, 1943.

R. CARILLO ET AL
SAFETY ELECTRIC CUTTING AND CLEANING DEVICE
FOR GARMENTS AND THE LIKE
Filed March 22, 1943

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UNITED STATES PATENT OFFICE

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SAFETY ELECTRIC CUTTING AND CLEANING
DEVICE FOR GARMENTS AND THE LIKERichard Carillo and Anthony Napoletano,
Brooklyn, N. Y.

Application March 22, 1943, Serial No. 480,124

4 Claims. (Cl. 26—11)

This invention relates to an electric cutting and cleaning device, particularly to cutting and cleaning waste thread ends of newly finished garments in the factory production, which is now done by hand scissors.

The main object of this invention, is to provide safety means to speed up the work and also to avoid cutting or injuring the cloth or garment which now occurs with hand scissors, but will not happen with this invention, as the lower cutting element is provided with cutting teeth or blades having ball end portions that smoothly run on and over the cloth of the garment and extended thread ends to be cut, in which these teeth or blades are very thin so as to remove the thread end closely. The teeth or blades of the upper cutting element do not have ball end portions, and therefore, slide within or between these ball end portions of the lower teeth or blades of the lower stationary element.

Another important object of this invention, is the assembly of the complete mechanism or parts, consisting of three major elements, namely, lower cutter element, upper cutter element and top locking plate or cover and its adjustable knurled nut that interlocks the two cutter elements in their operative positions, the upper or intermediate cutter element being reciprocative back and forth by an eccentric drive from the drive shaft of a small motor embodied with a handle member that is secured onto the extended upright portions of the lower cutter element. A switch bar is provided lengthwise of the handle for manipulating whenever desired in the cutting operation of this device.

Another important object of this invention, is the adaptability of using this cutting device in any direction, as there are two cutting edges, front and rear, so the operator may move it back and forth without turning his hand, however, it is possible that only one edge or row of cutting teeth or blades will be serviceable in many ways, and if so, a single cutter device may be made as well as the double cutter device shown in the drawing, or a safety guard may be placed over one row of teeth which may be reserved for later on when other row of teeth become slightly dull. However, the assembled parts are readily disassembled for the sharpening of the teeth and blades, and quickly reassembled.

Another object of this invention, is the compactness of this cutter device which is handily carried in the pocket when not in use, and may be used in many other useful ways other than cutting and trimming free thread ends, and the like, from garment being made.

Other objects of this invention, will appear as the description proceeds in the following specification, accompanied by the annexed drawing, in which

Figure 1 is a perspective view of the cutter device of this invention.

Figure 2 is a longitudinal elevational view of the same device.

Figure 3 is a cross-sectional view on line 3—3 of Figure 2.

Figures 4, 5 and 6 are perspective views of the three major parts or elements of this invention.

Figure 7 is a lengthwise elevational view of the bottom or lower cutter or scissor element.

Figure 8 is a sectional view on line 8—8 of Figure 2.

Referring to the drawing, the numeral 10 indicates a bottom or lower cutter element, also to be known as the lower scissor element, having a double edge or row of cutting teeth or blades 11 provided with ball end portions 11a. An upper track portion 12 connects to uprights or threaded extensions 13, having a slotted opening or gap 14 therebetween and an inwardly concaved portion 14a and recesses 15. These uprights have threaded portion 16 and shoulder portion 17 terminating into semisleeve-like extensions 16a, that are adapted to be secured into a handle member, later to be described.

In Figure 5 is shown the upper cutter element 20 having teeth or blades 21 extending from the bar portions 22 formed integrally with a bridge portion 23 provided with a slotted opening 24 transversely thereof. This cutter element is adapted to be placed onto the lower cutter element 10, whereby the bridge portion 23 is insertable through the gap 14 to be seated on the lower cutter element 10, where it is slidable into the recesses 15 by means of an eccentric drive, later to be described.

In Figures 2 and 8, the cutter elements 10 and 20 are shown interlocked by a plate member or cover plate 30 having a swivel connection with a knurled nut or ferrule 31, having an inner threaded portion 32 that is screwed onto the threaded portions 16 of the uprights 13 of the lower stationary cutter element 10, this knurled nut 31 being locked by a set-screw 31a in its adjusted position for the reciprocating movement of the intermediate cutter element 20 now interlocked between the cover plate 30 and lower cutter element 10.

The extensions 16a of the uprights 13 are adapted to be secured into a handle member composed of split halves 36 and 37, within which a small motor M may be embodied, having connections to a bar-like switch 33 which is easily manipulative as shown and illustrated in Figure 1. Screws or bolts 39 may secure the halves 36 and 37 onto the extensions 16a, in which a rubber or suitable washer W may be inserted onto the knurled nut 31, so to make the connection dust proof.

The motor M is connected to any suitable

source of electric current supply through a cord C, the motor having an extended drive shaft S onto which may be secured a collar or member 40 having a pin 41 eccentrically arranged therein, the pin 41 being engageable into the slotted opening 24, and imparts a reciprocating movement to the intermediate and upper cutter element 20 during the rotary driving operation of the shaft S, so the teeth or blades 21 move over the stationary teeth or blades 11, thereby providing a multiple scissor cutting means by the flat or straight contacting portions 25 and 26, as shown in Figure 2. These cutting portions of the teeth or blades may be slightly curved instead of straight as shown, if this would make a better cutting operation, but it is believed that the flat straight teeth or blades will perform more satisfactory.

It is to be noted in the Figures 4, 5 and 6, that a unique assembly and disassembly is possible, instantly and conveniently for the cleaning and sharpening of the teeth and blades of the cutter elements 10 and 20.

It is to be understood the assembly shown in the drawing, and hereinbefore described, illustrates the objects of this invention clearly, but it is obvious that this or any improvement may be adopted, and therefore, reserve that right, providing same comes within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent of the United States of America is as follows:

1. In an electric cutting and cleaning device of the character described, for garments and the like, lower and upper scissor cutter elements, a cover plate and lock nut swivelly formed together, said lower cutter element provided with two rows of teeth or blades having ball end portions, a raised track portion therebetween at each end thereof, the medial portion of said lower cutter element having uprights suitably spaced apart, said uprights threaded at their lower portions, and terminating above in semi-sleeve extensions, said upper cutter element provided with two rows of teeth or blades without ball end portions, so they may operate within the ball end portions of the teeth or blades of said lower cutter element, said teeth or blades of said upper cutter element forming part of bar-like portions integrally formed with a medial bridge portion having an open slot transversely thereof, said uprights of said lower cutter element provided with lower recessed portions, said medial bridge portion of upper cutter element being insertable through said gap and operative in said recesses when said upper cutter element is interlocked in between the lower cutter element and said cover plate by said swiveled lock nut, said semi-sleeve extensions of said uprights adapted to be secured by a handle member having a small motor embodied therein, said motor having an extending drive shaft having a collar secured on the end thereof, a pin arranged eccentrically therein, said pin adapted to engage said slot in the medial bridge portion of said upper cutter element, whereby it imparts a reciprocating movement therewith for the cutting operation of said teeth and blades to remove loose thread ends on cloth or garments being made.

2. In an electric cutting and cleaning device of the character described, for garments and the like, comprising in combination, lower and upper cutter elements, a cover plate and lock-nut swivel-

ly connected, said lower cutter element provided with two rows of teeth or blades having ball end portions, a raised track portion therebetween on the end portions thereof, uprights provided at the medial portion of said track portion suitably spaced apart, said uprights threaded at their lower portions and terminating above in semi-sleeve extensions, recessed portions at the lower portion under said threaded portions of said uprights, said upper cutter element having bar-like portions each with a corresponding row of teeth or blades without ball end portions, said bar-like portions connecting to a medial bridge portion having an open slot opening transversely thereof, said bridge portion being insertable between said uprights and movable into said recessed portions, said semi-sleeve extensions adapted to be secured into a handle member having a small electric motor embodied therein, said motor having a drive shaft provided with an eccentric driving means, such as a pin, engageable with said slot in said bridge portion of said upper cutter element, said cover plate and lock nut adapted to be secured onto the threaded portion of said uprights, thereby interlocking the upper cutter element to said lower cutter element, whereby said shaft and pin may impart a reciprocating movement to said upper cutter element, whereby said teeth and blades thereof slide over the stationary teeth or blades of the lower cutter element, for cutting loose thread ends from cloth and garments, and the like.

3. In an electric cutting and cleaning device of the character described, for garments, and the like, including, lower and upper cutter elements, said cutter elements provided with a row of cutting teeth on the front and rear thereof respectively, said lower cutter element provided with a track portion, and uprights at its medial portion, said uprights suitably spaced apart, the lower portions being threaded and the upper portion terminating in semi-sleeve extensions, said upper cutter element having bar portions provided each with a row of cutting teeth, the teeth of said lower cutter element having ball end portions, the teeth of said upper cutter element slidable onto said teeth of lower cutter element in between said ball end portions, said bar portions formed integrally with a medial bridge portion having an open slot transversely thereof, said bridge portion being insertable in between said uprights, whereby the teeth portions of both upper and lower cutter elements contact each other, a cover plate having a lock-nut therewith adapted to be secured onto the threaded portions of said uprights, thereby interlocking said upper cutter element, said semi-sleeve portions adapted to be secured into a handle member having a small electric motor embodied therein, said motor having driving means to operate said upper cutter member in a reciprocating movement, whereby said cutting teeth are adapted to cut loose threads from cloth, garments and the like, during the production thereof.

4. In an electric cutting and cleaning device of the character described, for garments and the like, and as defined in claim 2, said uprights provided with an inner concaved portion whereby the collar end portion of the drive shaft of said motor may be inserted between said uprights.

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