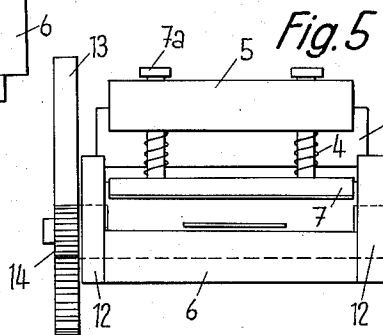
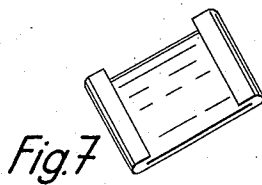
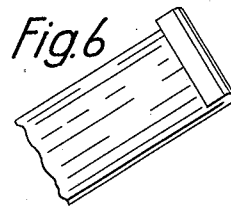
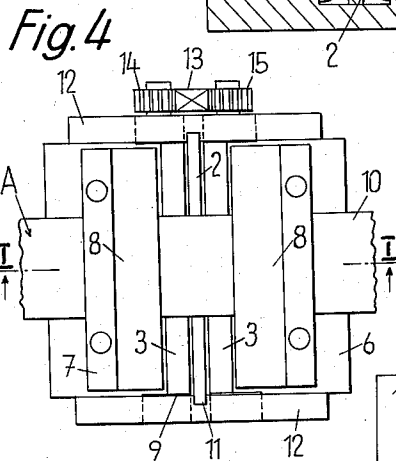
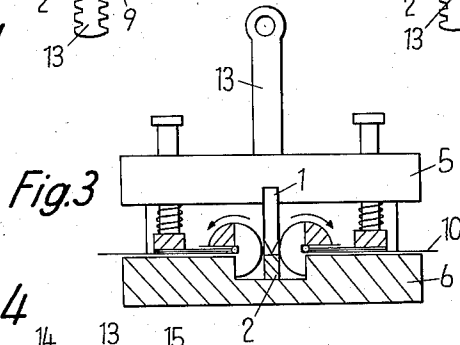
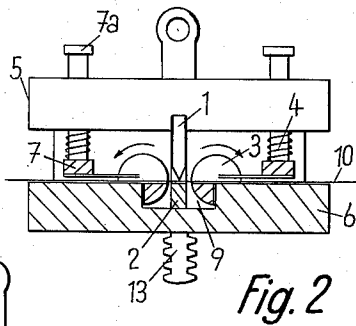
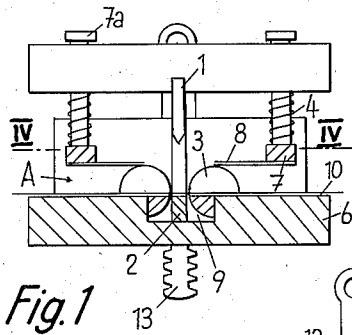


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DEVICE FOR CUTTING TEXTILE LABELS AND
FOLDING OVER THE ENDS THEREOF
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DEVICE FOR CUTTING TEXTILE LABELS AND FOLDING OVER THE ENDS THEREOF

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2 Claims. (Cl. 270—61)

This invention relates to cloth bands or textile labels, and more specifically to a device for cutting off such labels from at least one band strip and folding over the end portions thereof to make the labels ready for label sewing-on machines.

Machines for sewing on such cloth bands or textile labels are known. These machines enable bands or labels of different sizes to be sewn on to linen and articles of clothing. The effectiveness of such machines is, however, dependent upon the labels being cut and folded over ready for sewing on. The preparation of the individual labels in the usual manner by hand, consisting in cutting them from a band strip and folding over the ends, requires both time and skill and the labels are nevertheless not uniform, that is it constitutes a waste which is undesirable at least from the point of view of economy.

It has, therefore, already been proposed to carry out the cutting operation with the aid of shear-like cooperating knives, whereby projecting parts on the knives engage and fold over the ends of the labels.

While such devices serve their intended purposes without certain inherent limitations, they have several disadvantages. To eliminate said disadvantages it is, therefore, an object of the present invention to provide a device for cutting textile labels and folding over the ends thereof which is simple in construction, economical to operate and which will effectively and efficiently perform the purposes for which it is intended.

Another object of the invention is to provide a device which comprises means for folding over the rear end of a first label and the front end of a second label at the same time so that a finished label, folded over at both ends ready for sewing on, is produced after each working operation following a preceding working operation.

A device according to the invention is illustrated diagrammatically by way of example, without the mechanical actuating mechanism belonging thereto, in the accompanying drawing, in which—

Fig. 1 is a vertical section on line I—I of Fig. 4 showing a device in its open or initial position that is at the beginning of a working operation;

Fig. 2 is a similar view of the device in an intermediate stage of a working operation;

Fig. 3 is a similar view of the device in closed or final position, that is at the end of a working operation;

Fig. 4 is a top plan view taken on line IV—IV of the Fig. 1;

Fig. 5 is a side elevation thereof;

Fig. 6 is a perspective view of the front end of a band strip after the removal of a finished label, and

Fig. 7 is a similar view of a finished label folded over at both ends.

The device consists of a base plate 6 and a top plate 5. The base plate 6 has a groove-like recess 9 in which a cutting block 2 is fitted which is held in a groove 11 in each of two side plates 12 fixed on the base plate 6, these grooves 11 serving at the same time for guiding a knife 1 depending from the top plate 5. Two rotary bodies in

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the form of rollers 3 are symmetrically arranged one on each side of the cutting block 2 and are rotatable through an angle of 180° in the side plates 12. Each of these rollers 3 is cut away in cross section between its ends along a portion of the length of the roller corresponding to the width of the labels to be worked in the device, so that only a quarter segment of a round roller remains having two surfaces extending at right angles with respect to each other. One of said surfaces 3' is coplanar with and bears against one of the side walls of the recess 9, whereas the other surface lies in the same plane as the upper surface 3'' of the base plate 6 when the device is in the positions illustrated in Figs. 1 and 2. Heating arrangements, not shown in the drawing, may be provided in the base plate 6 and/or in the rollers 3 for heating these elements to ironing temperature.

The top plate 5 can be raised and lowered with the knife 1 in known manner either directly by means of a driving axle with cam disc or indirectly by means of levers or cranks which are also controlled by a driving shaft with cam disc. Such raising and lowering means are known per se and need not be shown or described in detail.

When the device is operated and after a band strip 10 has run therein in the direction of the arrow A shown in Figs. 1 and 4, the cutting knife 1 arranged in the transverse axis and substantially in the middle of the top plate 5 descends on to the cutting block 2. This top plate 5 also carries on its under side on each side of the knife 1 two pressure plates 7 loaded by pressure springs 4. These two plates 7 are provided with inwardly projecting tongues 8 and are mounted on guide bolts 7a movable in the top plate 5 and serving at the same time as spacing means.

When the device is in use, the base plate 6 rests firmly on a table, for example, whereas the top plate 5 is arranged so that it can move up and down in relation thereto. Through the intermediary of the pressure springs 4, the top plate 5 bears resiliently on the base plate 6 in the position shown in Fig. 3 and the knife 1 cuts a label of desired length from the band strip 10. For adjusting the length of a label a feed roller, the turning movement of which is adjustable in known manner, may be provided which, in cooperation with a spring loaded pressure roller, feeds the band strip 10 in the direction of the arrow A. The two label ends are simultaneously folded over through an angle of 180° about the opposite edges of the tongues 8 by means of spur wheels 14 and 15 mounted on adjacent ends of the rollers 3 and a manually operable rack 13 provided with teeth on both sides and guided between these spur wheels, as shown in Figs. 4 and 5. The folded over ends 10' are firmly ironed down under the action of the heat, whereupon a label passes out of the device ready for sewing on.

Each operation commences with the movement of the top plate 5 in downward direction. The band strip 10 is then held firmly by the pressure plates 7, as shown in Fig. 2, and a label is cut off the strip 10 by the knife 1 descending on to the cutting block 2, as shown in Fig. 2. At the same time the rollers 3 rotate outwardly in the direction of the arrows shown in Figs. 2 and 3 and the surface 3 effects the folding over of the rear end 10' of the cut label and of the front end of the following label about the edges of the tongues 8 which have moved into the path of travel of surface 3'', as shown in Fig. 3, with the result that a label is finished as shown in Fig. 7 and the following label is semi-finished as shown in Fig. 6. It will be noted that as the tongues are moved into the path of travel of the body portion 3'', the pressure plates 7 serve to retain the band and severed portions on the base plate 6.

The device according to the invention can be operated

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by hand. It can however also be used on suitable machines which effect the feed and movement of the band strip in the direction of the arrow A and also the opening and closing of the parts of the device and the turning of the rollers 3, so that a single cut is effected at each rotation. The label prepared ready for sewing, as shown in Fig. 7, folded over at the ends can also be fed to a sewing machine for affixing on an article of clothing or household linen. Mechanical arrangements of this kind for semi- or fully-automatic operation are known per se. As a rule they are provided with a feed with rollers and can be set and adjusted in stages according to the length of the actual series of labels.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description and all changes which come within the meaning and range of equivalency of the claims are therefore intended to be embraced therein.

I claim:

1. Apparatus for cutting labels from a continuous web of material and for overfolding the ends of labels comprising in combination a pair of vertically spaced overlying plates disposed on opposite sides of the path of travel of a continuous web of material moved therebetween, one of said plates being mounted for vertical movement with respect to said other plate, said first mentioned plate including cutting means having a vertical path of travel relative to said other plate, said other plate including means thereon cooperating with said cutting means for severing a section from said web during down-

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ward movement of said cutting means, a pair of bodies rotatably mounted on said other plate transversely of the path of travel of said web and for oscillation about respective parallel axes which are parallel to the path of travel of said cutting means, said body means being disposed on opposite sides of the path of travel of said cutting means and including web-engaging portions normally disposed beneath the path of travel of said band and movable therethrough for engaging severed ends of said web and overfolding the same, said just mentioned plate including spaced pressure means overlying and engageable on said web and including terminal portions positionable into the path of travel of said web-engaging portions of said bodies and spaced from the path of travel of said cutting means for having a severed web end folded thereover, and power means connected to said bodies for simultaneously rotating each in opposite directions onto the terminal of said pressure means after the web has been severed, said body portions being rotatable through an angle of 180° to provide a complete overfold.

2. The structure of claim 1; said pressure means including resiliently urged pressure plate engageable transversely of the path of travel of said web in spaced relation on opposite sides of the path of travel of said cutting means, said terminal portions comprising resilient tongue elements terminating adjacent the axes of rotation of said bodies.

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