

Aug. 27, 1968

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3,399,097

LABEL POSITIONING APPARATUS

Filed Oct. 20, 1965

2 Sheets-Sheet 1

FIG. 1

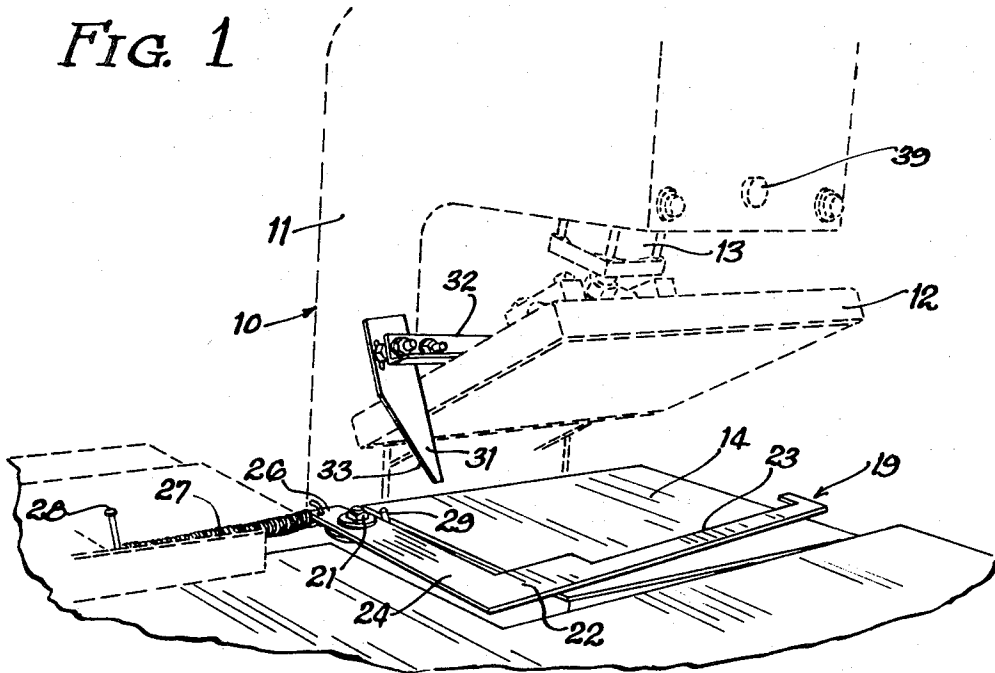
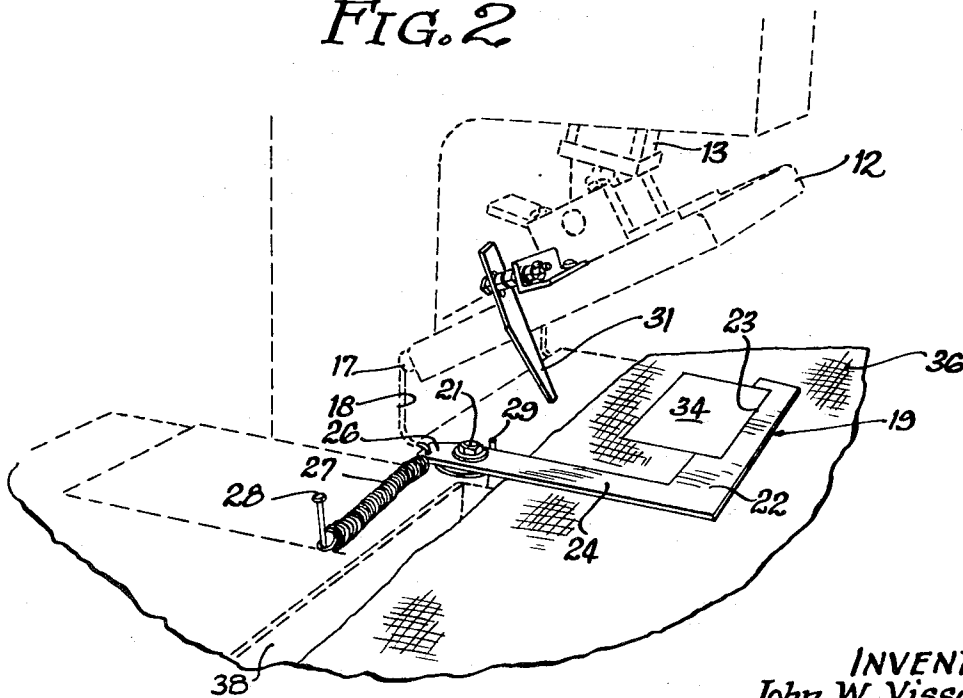


FIG. 2



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2 Sheets-Sheet 2

FIG. 3

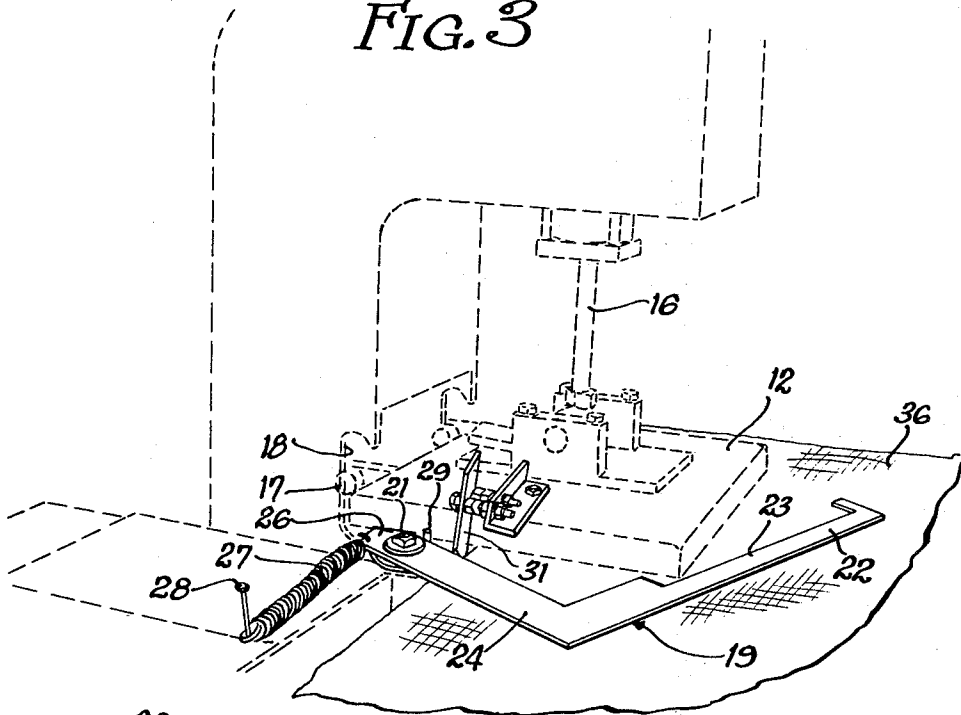


FIG. 4

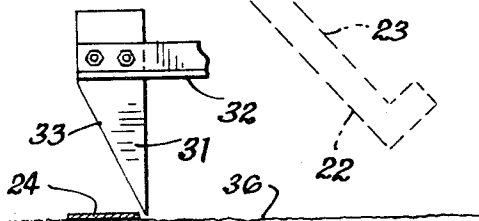
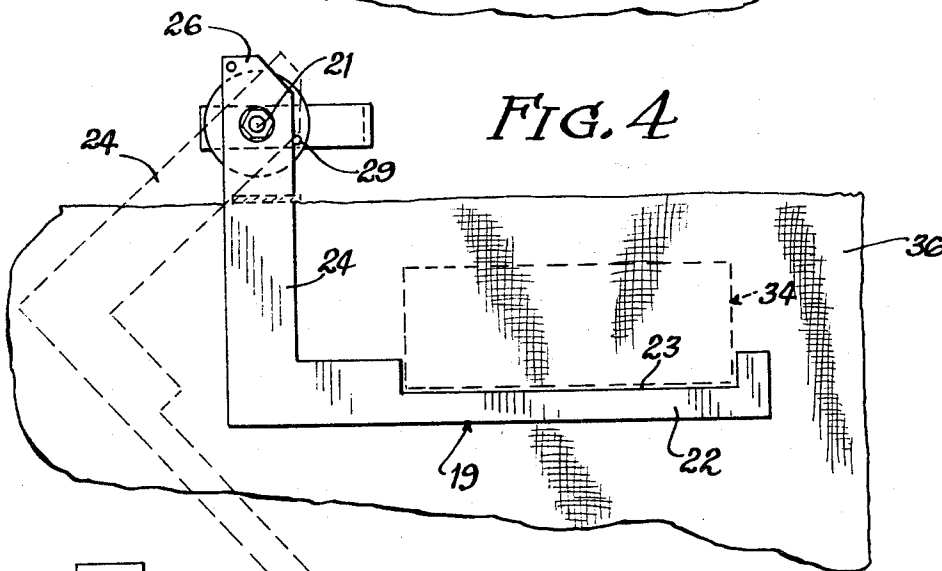


FIG. 5

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3,399,097

LABEL POSITIONING APPARATUS

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7 Claims. (Cl. 156—583)

This invention relates to an apparatus for locating the position of a label or the like on a panel of fabric or the like on which it is to be secured.

One of the objects of this invention is the provision of an apparatus operatively associated with a pressing machine of the type used for securing labels or the like to panels of fabric, the apparatus including a moveable guide member arranged when the platen of the pressing machine is retracted to locate the position in which a label is to be placed by an operator on a panel of fabric and the guide member being automatically moved out of the path of movement of the platen when the platen is traveling in its pressure stroke so as to avoid interference with the platen in the pressing operation.

Another object of this invention is to increase the speed and accuracy with which a label may be positioned and secured to a panel of fabric or the like.

A further object of this invention is the provision of an apparatus of the foregoing character which is simple in construction, economical to manufacture and highly efficient in operation.

Other and further objects and advantages of this invention will be apparent to those skilled in the art from the following description and drawings, in which:

FIG. 1 is a front perspective view of an apparatus in accordance with my invention and showing the same in combination with a press with the platen thereof in retracted position.

FIG. 2 is a side perspective view of the apparatus illustrated in FIG. 1 and showing a label located and positioned for attachment to a fabric panel.

FIG. 3 is a perspective view similar to FIG. 2 but showing the guide member of the apparatus moved to inoperative position and the platen of the press in pressure applying position.

FIG. 4 is a fragmentary top plan view showing the guide member in operative and inoperative positions.

FIG. 5 is a fragmentary front elevational view of a structural detail showing the parts in non-operative relation.

Referring to the drawings, the numeral 10 indicates a machine or apparatus which is particularly adapted to attach labels to fabric surfaces and the like and which includes a frame 11, a platen 12 operatively connected to the ram of a pneumatic cylinder 13 arranged to reciprocate the platen 12 and a presser plate 14 against which the platen 12 is moved. The platen 12 and presser plate 14 constitute upper and lower electrodes of a high frequency electrical circuit which functions to render an adhesive coating on a label positioned between the electrodes thermoplastic, in a well-known manner.

As will be seen by reference to FIGS. 2 and 3 of the drawings, the platen 12 is pivotally connected to the rod 16 of cylinder 13 and the rearward end of the platen 12 is provided with a pair of rollers 17 arranged to engage track elements 18 in the frame 11. Said track elements influence the course of movement of the platen whereby when the rod 16 is extended the platen assumes a horizontal position to engage against the presser plate 14, as illustrated in FIG. 3, and when the platen 12 is retracted the rollers 17 engage against the upper portions of the trackway limiting the movement of the platen and causing the same to incline upwardly, as viewed in FIGS. 1 and 2. The foregoing apparatus is of generally conventional construction and forms no part of the present invention.

2

In using the aforescribed apparatus an operator merely draws a panel of fabric or like material over a supporting surface which is continuous and co-planar with that of the presser plate 14. He then positions a label to be applied to the panel and actuates the apparatus to bring the platen 12 into pressing engagement with the label, with the high frequency electrodes energized so as to render the adhesive coating on the label thermoplastic whereby to effect securement of the same on the panel. The accurate positioning of the label on the panel by the operator is relatively critical for aesthetic reasons and, heretofore, excessive time was required by the operator to properly locate the label for securement.

In accordance with my invention, I provide a generally L-shaped guide member 19 pivoted as at 21 and having one arm 22 provided with a recess 23 for a purpose, as will be hereinafter explained. As will be seen clearly in the drawings, the pivot point 21 is spaced from one end of the arm 24 to afford a short extension 26 which is pierced to receive one end of a tension spring 27, the other end of said spring being connected to a post 28. As will be apparent, the guide member 19 is biased to rock in a counterclockwise direction, as viewed in FIG. 4, and movement of said member in such direction is arrested upon engagement with a pin 29 affording a stop for said member.

A camming member 31 is rigidly mounted on a bracket 32 supported on the top of the platen 12. Said camming member is disposed closely adjacent one edge of the platen substantially medially thereof with its camming surface 33 arranged to engage arm 24 of the guide member 19. As will be apparent, when the camming member 31 is caused to be moved downwardly, arm 24 is engaged by the camming surface 33 effecting rocking of the guide member 19 from the normal solid line position to the dotted line position illustrated in FIG. 4.

In normal non-operative position the platen 12 is elevated, as illustrated in FIGS. 1 and 3 and the guide member 19 overlies the presser plate 14. In order to secure a label 34 on a fabric panel 36 or the like, the operator draws the panel over the presser plate 14 and adjacent supporting surface and under the guide member 19 so that the panel is disposed substantially as illustrated in FIG. 2. Preferably an abutment 38 is provided to afford a guide for a longitudinal edge of the panel 36. The guide member 19 is in position to receive a label 34 which is placed by the operator in the recess 23 of arm 22, as illustrated in FIG. 2, and with the label so placed the operator actuates a switch 39 in the control panel of the press to effect downward movement of the platen and energization of the electrodes located in the platen and presser plate. As the platen 12 moves downwardly the cam member 31 effects rocking of the guide member 19 to the position illustrated in FIG. 3 (dotted line position FIG. 4) so that the guide member is clear of the platen and pressure may be applied directly on the label 34 by the platen. After a prescribed interval of time the adhesive on the label is rendered thermoplastic to effect bonding with the panel and the platen then is automatically elevated to inoperative position.

It will be understood that if a panel is part of a continuous web, the operator merely draws the web under the guide member 19 to present another panel section of the web to which a label may be applied in the aforescribed manner.

It will be understood that the platen and presser plate may be heated by other means such as by electrical resistance or by a circulating heating medium.

It will be apparent that the apparatus of my invention affords means for rapidly and accurately locating labels for attachment to panels with a minimum of effort and skill.

Various changes coming within the spirit of my invention may suggest themselves to those skilled in the art; hence, I do not wish to be limited to the specific embodiments shown and described or uses mentioned, but intend the same to be merely exemplary, the scope of my invention being limited only by the appended claims.

I claim:

1. In combination with a pressing machine for labels having a reciprocating platen and a stationary presser plate cooperating with said platen, (a) a guide member normally disposed in superposed registering relation with said presser plate and being pivotable about an axis normal to said presser plate, and (b) cam means carried on said platen and arranged when said platen is moved in the direction of said presser plate to engage said guide member to move the same out of registration with said presser plate.

2. In combination with a pressing machine for labels having a reciprocating platen and a stationary presser plate cooperating with said platen, (a) a guide member normally disposed in superposed registering relation with said presser plate and being pivotable about an axis normal to said presser plate, (b) said guide member having means defining a position in which a label is to be placed, and (c) cam means carried on said platen and arranged when said platen is moved in the direction of said presser plate to engage said guide member to move the same out of registration with said presser plate.

3. The invention as defined in claim 2 in which the guide member is substantially L-shaped and the pivotal axis is spaced from the presser plate.

4. The invention as defined in claim 2 in which the cam means depends from an edge of the platen.

5. In combination with a pressing machine for labels having a reciprocating platen and a stationary presser plate cooperating with said platen, (a) a guide member normally disposed in superposed registering relation with said presser plate and being pivotable about an axis normal to said presser plate, and (b) means operable to move said guide member out of registration with said presser plate in synchronism with the movement of said platen in the direction of said presser plate.

6. The invention as defined in claim 5 in which the guide member has means defining a position in which a label is to be placed.

7. The invention as defined in claim 1 including spring means biasing said guide member in said registering relation.

References Cited

UNITED STATES PATENTS

2,571,103 10/1951 Belcher et al. 156-583

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