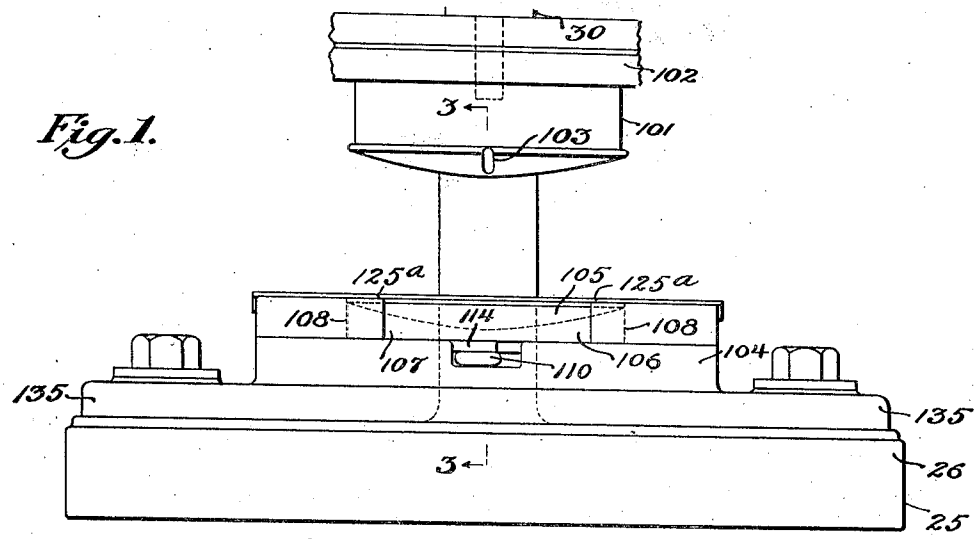
Aug. 3, 1926. 1,594,352

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COVER APPLYING DIE CONSTRUCTION

Original Filed Jan. 5, 1924

Fig. 1.



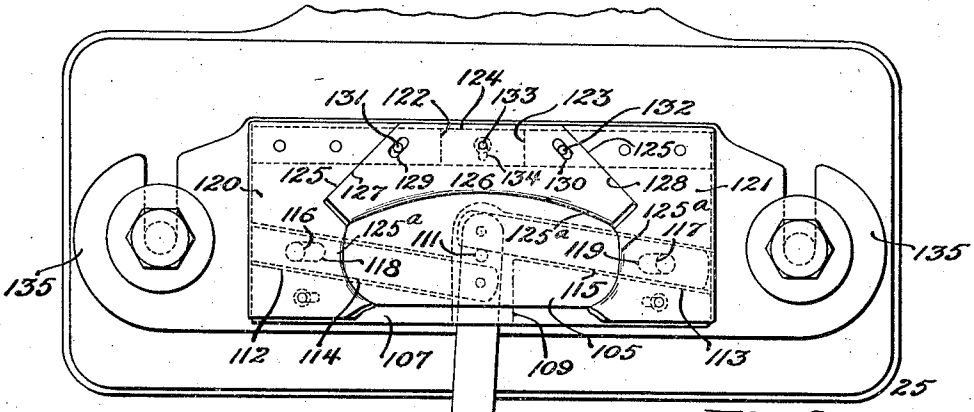


Fig. 2.

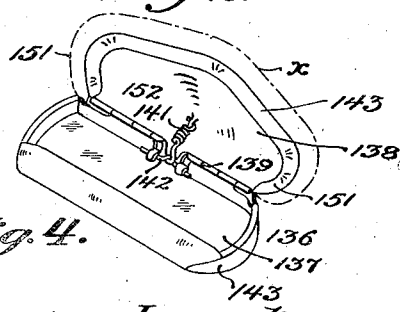
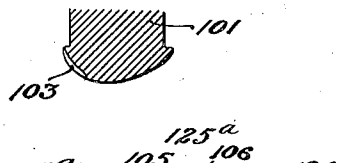


Fig. 4.



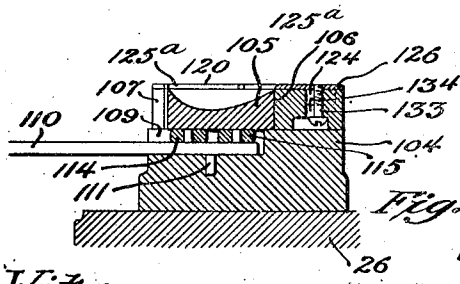


Fig. 3.

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Patented Aug. 3, 1926. 1,594,352

UNITED STATES PATENT OFFICE.

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COVER-APPLYING DIE CONSTRUCTION.

Original application filed January 5, 1924, Serial No. 684,673. Divided and this application filed December 14, 1925. Serial No. 75,328.

This is a divisional application divided out of our application for United States Patent, Serial No. 684,673, for cover-applying die construction, filed by us on January 5th, 1924, said application having matured into Patent No. 1,579,467, of April 6th, 1926.

The mechanism of the present invention is advantageous and particularly adapted for quickly turning and applying flexible covering material, such as leather, imitation leather, and various forms of processed cloth, around the edges of the lids of eye-glass cases and securing it in firm and neat contact with the inner surface of the lid.

The invention will be more thoroughly comprehended from the following description, reference being had to the accompanying drawing in which—

Figure 1 is a front elevation illustrating said invention,

Figure 2 is a top plan view showing certain of the parts illustrated in Figure 1,

Figure 3 is a fragmentary section taken on the line 3—3 of Figure 1, and

Figure 4 is a perspective view of an eye-glass case showing the lid open and being illustrative of the manner in which the covering material is affixed to the edge and inner surface of the lid by the mechanism of the present invention.

Referring to the drawing, a stand 25 has a base 26. A top die 101 is carried by a plunger 30 which can be moved downward and upward by any suitable means such for example as by the means illustrated and described in said Patent No. 1,579,467, April 6th, 1926. Said die 101 has an electric resistance heating agent 102 on its top. The bottom of the die 101 is made convex and is grooved as shown at 103 to allow room for the spring of the lid of the eye-glass case during the covering operation. A die block 104 includes a die 105 directly below the die 101. This die 105 sets within a chamber 106, said chamber being open at its front to provide a restricted mouth 107. The upper surface of the die 105 is concave and curves upwardly at its ends to the end walls 108 of the chamber 106 as clearly shown in Figure 1.

The die block 104 below the die 105 is notched as shown at 109 to provide a pivotal mounting for the inner end of a lever 110, said lever being pivoted at 111. Channels 112 and 113 lead from the notch 109 in opposite directions. Links 114 and 115 are respectively positioned within the channels 112 and 113 and are pivotally connected to the inner surface portion of the lever 110 at opposite sides of the pivot 111. The links 114 and 115 have pins 116 and 117 which lead upwardly through slots 118 and 119 in the die block 104 and are secured to lateral plate dies 120 and 121. These plate dies are slidably mounted on the top of the die block 104 and are secured to slide-bars 122 and 123. These slide-bars are slidably mounted in a channel 124 which is cut in the upper part of the die block 104 to the rear of the die 105. It will thus be understood that by swinging the lever 110 from side to side that the lateral plate dies 120 and 121 can be slid toward and from each other. Each of the plate dies 120 and 121 have beveled edges 125 which converge with respect to each other as clearly shown in Figure 2. A third plate die 126 is slidably positioned on the top of the die block 104 between the edge portions 125 of the plate dies 120 and 121. The plate die 126 has beveled edges 127 and 128 co-active with the edges 125. The plate die 126 has slots 129 and 130 which slant as shown in Figure 2. Pins 131 and 132 on the slide-bars 122 and 123 fit into the slots 129 and 130. A screw 133 is screwed into the plate die 126 and depends through a slot 134 in the die block 104. The screw 133 has a head at its lower end of greater diameter than the width of the slot 134 so that the plate die 126 while being allowed to slide, cannot raise off the die block 104.

With the above mentioned construction if the lever 110 is swung to move the plate dies 120 and 121 toward each other, the plate die 126 will be moved forwardly and the inner edges of all of said plate dies will overhang the die 105. Vice versa, if the lever 110 is swung in an opposite direction to move the plate dies 120 and 121 apart, the plate die 126 will be moved rearwardly. Said actions occur during the covering operation as will be hereinafter described. The top die 101 is of such shape that when it descends it will pass within the confines

of the inner edges of said plate dies 120, 121, and 126 and said edges are preferably beveled as at 125ª so that if said plate dies are accidentally moved inward and the top die brought down, the beveled or curved formation of said edges will allow said die 101 to push them outwardly without injury thereto since said beveled edges will serve as cams co-acting with said die 101 effecting said outward movement of the plate dies.

The die block 104 is provided with notched extensions 135 which allow the die block and parts thereof to be secured to the base of the stand 25.

In Figure 4 is shown an eye-glass case 136 which includes a body 137 and a lid 138, said lid being hinged at 139 to the body 137. A coiled spring 141 has one end secured to the lid and the other end secured to a looped anchoring member 142 in the body 137; the hinge 139 being discontinued at the place where the spring extends into the body. Said case is of a well known construction and the arrangement of the spring presents the advantage of holding the lid open when the lid is moved into a certain position and also for holding the lid closed after the lid has been moved past what is known as the dead center during the closing action.

In describing the operation of the mechanism of the present application, it will be considered that a part of a flexible cover 143 has been secured to the body 137 and to the outer surface of the lid 138 by means not forming a part of the present application, however, that a portion of said cover 143 indicated by the reference number 151 is projecting beyond the outer edge of the lid as indicated by the dot-and-dash line x and that the utility of the mechanism of the present application is to turn said portion 151 around said edge of the lid and against the inner surface 152 in the manner indicated in full lines at 151 in Figure 4. The operation is as follows: With the lid of the case open, the lid is placed in an inverted position over the die 105. This action causes the overhanging part 151 of the cover to bend upwardly in a position within the confines of the inner edges of the plate dies 120, 121 and 126. The lever 110 is then swung to cause the plate dies 120, 121 and 126 to fold said overhanging part 151 of the cover inward so as to lay against the inner surface 152 of the lid 138. The top die 101 is then moved downward and presses said folded part of the cover into firm holding contact with the surface 152 of the lid as shown in Figure 4 and the covering action is then complete.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies; a rear plate die, said lateral plate dies including pin-and-slot connections in which the slots extend at converging angles so that when said lateral plate dies are moved toward each other the rear plate die will be moved forwardly and all of said plate dies will have portions overhanging said first die, and when said lateral dies are moved apart said rear die will be moved rearwardly; a pivotally mounted lever; and links respectively connected to said lateral plate dies and to said lever at opposite sides of its pivotal axis whereby when the lever is oscillated said lateral plate dies will be moved toward and from each other.

2. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies; a rear plate die; means operatively connecting the lateral plate dies and rear plate die; a pivotally mounted lever; and links connected to said lever and operative when the lever is swung to move said plate dies into and out of overlapping position relatively to said first die.

3. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die, said block having a channel therein; lateral plate dies; a rear plate die, said lateral plate dies having portions slidable within said channel; pin-and-slot connections between said latter portions and the rear plate die; a pivotally mounted lever; and a link structure operatively connected to said lever and lateral plate dies and operative when the lever is swung, to move said lateral plate dies and, through the medium of said pin-and-slot connections, said rear plate die into and out of overlapping position relatively to said first die.

4. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies; a rear plate die; means operatively connecting the lateral plate dies and rear plate die; a pivotally mounted lever; and links connected to said lever and operative when the lever is swung to move said plate dies into and out of overlapping position relatively to said first die, said die block having channels and being notched for the housing of said links and pivotal connection of the links with said lever.

5. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies having slanting portions; a rear plate die having slanting guiding portions co-active with the slanting portions of the lateral plate dies; and means for moving said plate dies into positions having portions overlapping said first die.

6. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies; and a rear plate die, said lateral plate dies including pin-and-slot connections with said rear plate die in which the slots extend at converging angles so that when said lateral plate dies are moved toward each other the rear plate die will be moved forwardly and all of said plate dies will have portions overhanging said first die and when said lateral dies are moved apart said rear die will be moved rearwardly.

7. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies having rearwardly converging edges; a central rear plate die having rearwardly converging edges fitting between said converging edges of the lateral plate dies; common means for moving portions of said plate dies into positions overhanging said first die; and a die movable downwardly through the space between said plate dies.

8. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies; means for guiding said lateral dies; a lever; links directly connecting said lever with the lateral dies whereby when the lever is moved portions of said plate dies will be moved into positions overlapping said first die; and a die movable through the space between said lateral dies.

9. In a cover-applying construction for cases of the character described, a series of dies including a die block having a die; lateral plate dies; a rear plate die operatively connected with said lateral dies; means for guiding said lateral dies; a pivoted lever; links pivoted to said lever at opposite sides of its pivot and operatively connecting said lever with the lateral dies whereby when the lever is swung on its pivot portions of said plate dies will be moved into and out of positions overlapping said first die; and a die movable through the space between said plate dies.

10. In a cover-applying construction for a case having a body, a lid hinged to the body, and a coiled spring connecting the inner portion of the lid with the body, a base structure upon which the opened lid is placed in an inverted position; means for turning a portion of a cover around the edge of and across the inner surface of the lid; and a die movable into contact with said portion of the cover and having a groove for registry with said springs so as not to injure the latter.

In testimony whereof we have signed our names to this specification.

WILLIAM E. CHRISTMAN.
ROY L. WARREN.