W. P. DEVINE.

MACHINE FOR COVERING EYEGLASS CASES.

APPLICATION FILED MAY 21, 1906.

963,423.

Patented July 5, 1910.

2 SHEETS—SHEET 1.

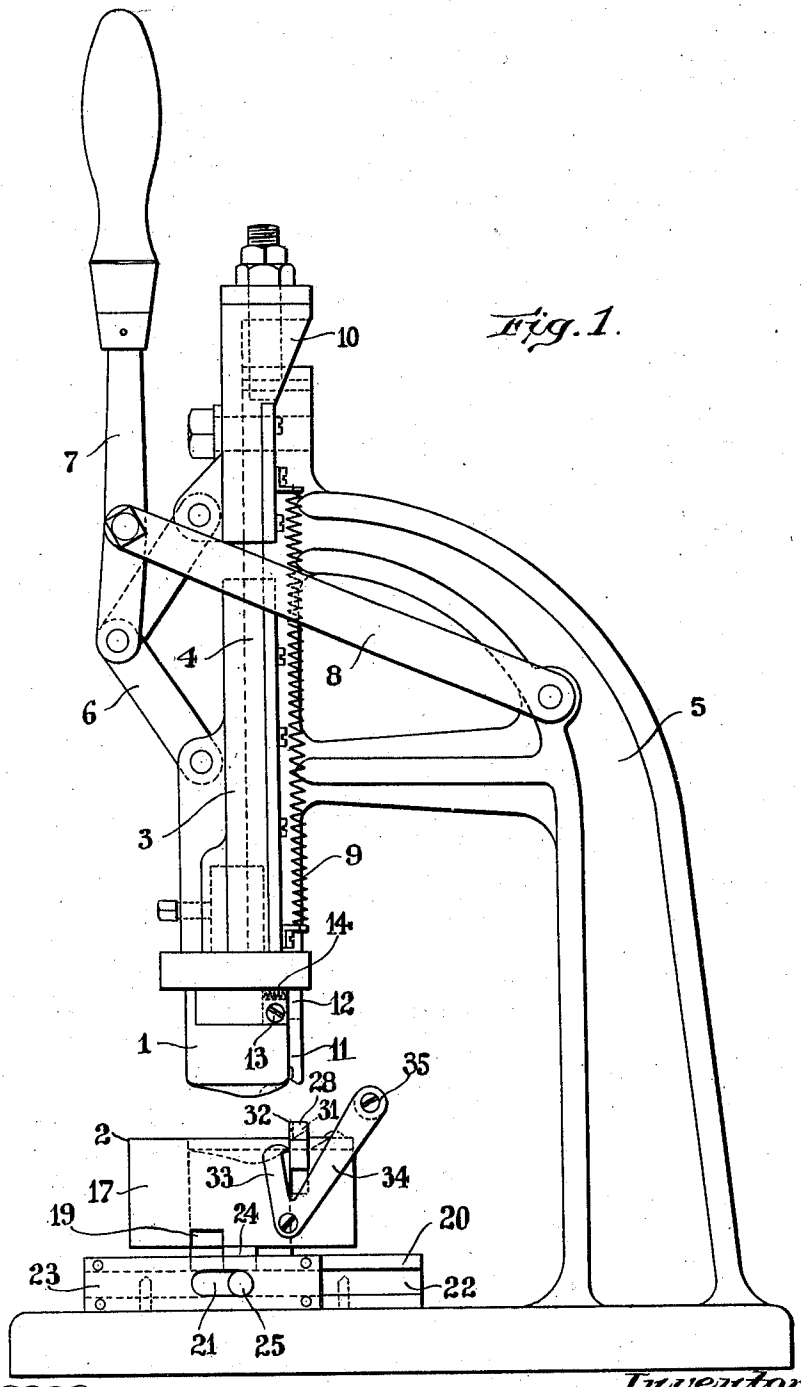

Fig. 1.

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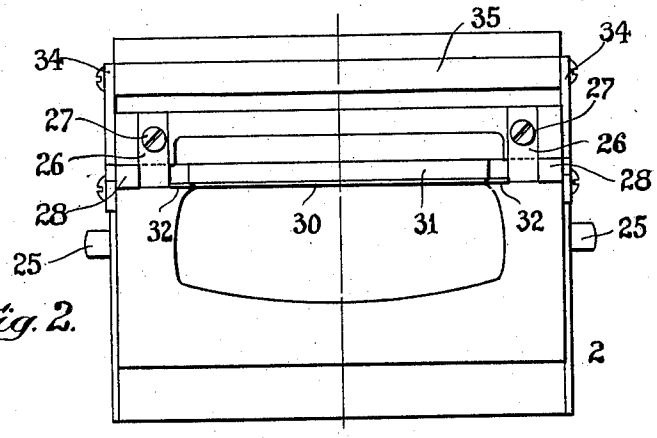


Fig. 2.

Fig. 3.

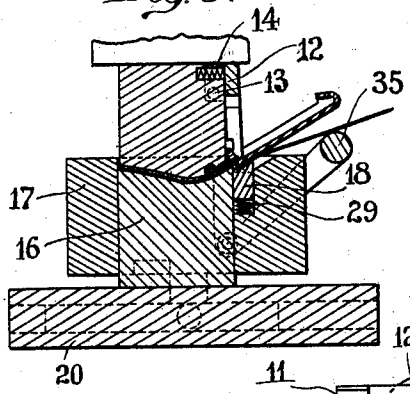
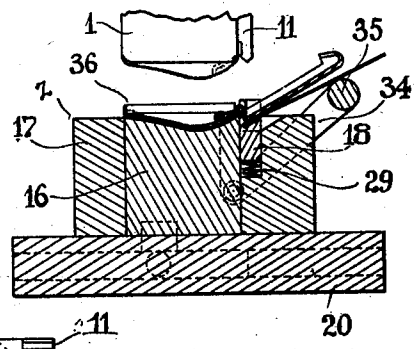


Fig. 4.



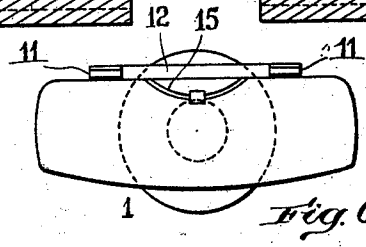
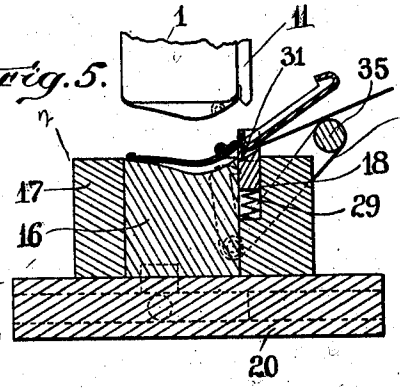


Fig. 6.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR COVERING EYEGLASS-CASES.

963,423. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed May 21, 1906. Serial No. 317,895.

To all whom it may concern:

Be it known that I, WILLIAM P. DEVINE, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Machines for Covering Eyeglass-Cases, (No. 1;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in machines for covering eyeglass cases.

The object of the invention is to produce an improved machine for applying leather or other covering material to the outside surface of an eyeglass case, the illustrated embodiment of the invention being particularly adapted for applying and affixing the covering material to the cover portion of an eyeglass case consisting of a body of sheet metal and a sheet metal cover hinged thereon.

The invention consists in the improved machine for covering eyeglass cases hereinafter described, as defined in the claims.

In the drawings Figure 1 is a side elevation of a machine for covering eyeglass cases embodying the present invention; Fig. 2 is a plan view of the bed and the die upon which the eyeglass case is pressed against the covering material; Figs. 3, 4, and 5 are vertical sections showing the plunger and die in various positions during the operation of the machine, and Fig. 6 is a bottom view of the plunger.

The illustrated embodiment of the invention is designed particularly for applying the covering material to the cover of an eyeglass case, the die and plunger shown in the drawings being shaped to conform to the interior and exterior surfaces of the cover, and it is intended to affix the covering material to the body of the eyeglass case in another operation performed by another and somewhat different machine.

The machine of the drawings comprises a plunger 1 and a die 2 between which the eyeglass case and the sheet of covering material are pressed together. The plunger is fixed to a slide 3 sliding on vertical ways 4 on the overhanging frame 5 of the machine. The slide is actuated by a toggle 6 which may be bent and straightened by a hand lever 7 connected to the frame 5 by a link 8. When the handle is drawn forward and downward by the operator the toggle is straightened and the plunger is moved toward the die. A spring 9 holds the plunger normally in raised position, and a vertically-adjustable block 10, to which the upper end of the toggle is pivoted, affords means for adjusting the distance between the die and the plunger when the latter is in its lowermost position.

The plunger 1 is provided with two clips 11 fixed to a bar 12 pivotally mounted upon the plunger by ears engaging screws 13. A spring 14 located in a recess in the plunger body tends to hold the clips against the side of the plunger in the position of the drawings so that when the cover of an eyeglass case is pressed against the lower surface of the plunger by the operator the case will be held upon the plunger by the engagement of the lower hooked ends of the clips with the hinge of the eyeglass case, as shown in Fig. 3. The plunger is provided also with a recess 15 to receive the spring by which the cover of the eyeglass case is normally held closed.

The die 2 is made in three portions, comprising a central portion 16, an inclosing member 17, and a presser-bar 18. The member 17 is movable vertically with respect to the central member 16, being free to slide thereon, and is provided with a recess 19 at each end. The bed plate 20, upon which the die is supported, is provided at each end with a bar 21 sliding in a groove 22 in the bed plate, the bar being held in place by cover plates 23, and these bars are provided with upwardly-extending lugs 24 and with laterally-extending pins 25 passing through slots in the cover plates 23. This arrangement affords means by which the member 17 of the die may be held in raised position resting upon the lugs 24, while the bars 21 may be drawn forward by the operator by means of the pins 25 when it is necessary to lower the part 17, so that the lugs 24 may be received in the recess 19 in the ends of the part 17 to permit it to fall. When the part 17 is in lowered position its upper surface is substantially flush with that of the central part 16 of the die.

The presser bar 18 serves to affix the covering material to the hinged portion of the

eyeglass case, and also acts as an ejector, to assist in removing the case from the die. The presser bar is located in a vertical recess in the die member 17 being retained therein by plates 26 located in recesses in the top of the die member 17 and secured therein by screws 27. The forward ends of the plates 26 extend over the recess in which the presser bar is located and engage recesses in the upper surface of the presser bar when the latter is in its uppermost position. The presser bar is provided with an upward extension 28 at each end to prevent longitudinal displacement of the bar during its vertical movements. The presser bar is supported by springs 29 which hold it normally in raised position. The central portion of the presser bar has an upwardly extending lip 30 which operates to press the covering material into the angle of the hinged portion of the eyeglass case, and the presser bar is also provided on its upper surface with a depression 31 which affords a space for slack covering material to allow for the opening and closing of the eyeglass case. The presser bar is also provided with two upwardly extending lugs 32 which extend above the lip 30 and are used as gages to assist in properly locating the sheet of covering material upon the die.

Means are provided for retaining the presser bar in depressed position, these means comprising hooks 33 pivoted upon the ends of the die and connected by arms 34 and a rod 35 which serves as a handle by which the operator may swing the hooks forward to release the presser bar.

The operation of this machine is performed as follows: The operator raises the die member 17 and pushes the pins 25 back so as to retain it and then lays a sheet of covering material, which has been cut to the proper shape, upon the die, using the gages 32, which engage the recesses at the hinge portion of the covering material, to properly locate the material. The operator then applies the eyeglass case to the plunger, against which it is held by the clips 11, and depresses the plunger by means of the hand lever 7, thereby pressing the cover of the eyeglass case firmly against the covering material which has been previously spread with a suitable adhesive, and in this manner the covering material is applied smoothly to the cover of the eyeglass case. At the commencement of the operation the presser bar 18 is held in raised position by the spring 29, and it therefore yieldingly engages the covering material and presses it into the angle formed by the members of the eyeglass case. During the pressing operation the presser bar is depressed and the hooks 33 engage its ends so as to hold it down when the plunger is raised by the operator. After raising the plunger the operator draws the pins 25 forward, thereby allowing the die 17 to fall to the position of Fig. 4. This permits the operator to bend inward against the inside of the eyeglass case the upwardly-projecting margin 36 of the covering material. The operator then lowers the plunger again to affix this margin to the interior surface of the eyeglass case, and then draws forward the bar 35, thereby releasing the presser bar. The presser bar is immediately raised by the springs 29 and frees the eyeglass case from the die, as shown in Fig. 5, so that it may be readily removed by the operator.

Although the invention has been described in connection with a machine for attaching covering material to the cover portion of an eyeglass case, it will be understood that it may be also adapted, by slight modifications in the forms of the operating members, to operate upon the body portion of an eyeglass case, and the invention is not, in general, limited to the details of construction and operation of the illustrated embodiment, but may be embodied in other forms broadly defined in the claims.

Having now described the invention, what is claimed is:

1. A machine for covering eyeglass cases, having, in combination, a die formed to receive an eyeglass case and press the covering material thereagainst, a plunger for pressing the eyeglass case against the die, and means for holding the eyeglass case upon the plunger, substantially as described.

2. A machine for covering eyeglass cases, having, in combination, a die formed to receive an eyeglass case and press the covering material thereagainst, a plunger for pressing the eyeglass case against the die, and means connected with the plunger for engaging the hinge portion of the eyeglass case to hold the case against the plunger, substantially as described.

3. A machine for covering eyeglass cases, having in combination, a plunger for engaging the inside of an eyeglass case, and a cooperating die for pressing covering material against the outside of the case, provided with a part formed to crease the material and apply it to the hinge portion of the case, substantially as described.

4. A machine for covering eyeglass cases, having, in combination a plunger for engaging the inside of an eyeglass case, a cooperating die for pressing the covering material against the outside of the case, and independently-movable means for pressing the covering material against the hinge portion of the case, substantially as described.

5. A machine for covering eyeglass cases, having, in combination, a plunger for engaging the inside of an eyeglass case, a cooperating die for pressing the covering material against the outside of the case, and a spring-supported independently-movable

presser-bar for pressing the covering material against the hinge portion of the case, substantially as described.

6. A machine for covering eyeglass cases, having, in combination a plunger for engaging the inside of an eyeglass case, a cooperating die for pressing the covering material against the outside of the case, and an independently-movable presser bar provided with a lip to press the covering material against the hinge portion of the case and a depression to receive slack covering material, substantially as described.

7. A machine for covering eyeglass cases, having, in combination a plunger for engaging the inside of an eyeglass case and a coöperating die comprising a central member for bending up the margin of the covering material and an inclosing member, the two members of the die being relatively movable and having provision for fixing them in different relative positions, substantially as described.

8. A machine for covering eyeglass cases, having, in combination, a plunger for engaging the inside of an eyeglass case, a cooperating die comprising a fixed central member and a vertically movable outside member and means for fixing the outside member in raised position, substantially as described.

9. A machine for covering eyeglass cases, having, in combination, a plunger for engaging the inside of an eyeglass case, a cooperating die for pressing the covering material against the outside of the case, and gages arranged to engage the recesses of the hinge portion of the sheet of covering material properly on the die, substantially as described.

10. A machine for covering eyeglass cases, having, in combination, a plunger for engaging the inside of an eyeglass case, a cooperating die, a spring-supported presser for pressing the covering material against the hinge portion of the case, and means for retaining the presser in retracted position, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses.

WM. P. DEVINE.

Witnesses:

ALFRED H. HILDRETH,

HORACE VAN EVEREN.