Oct. 8, 1957 H. J. BAUERMEISTER 2,808,611

SEPARABLE HINGE

Filed May 7, 1954

FIG. 1

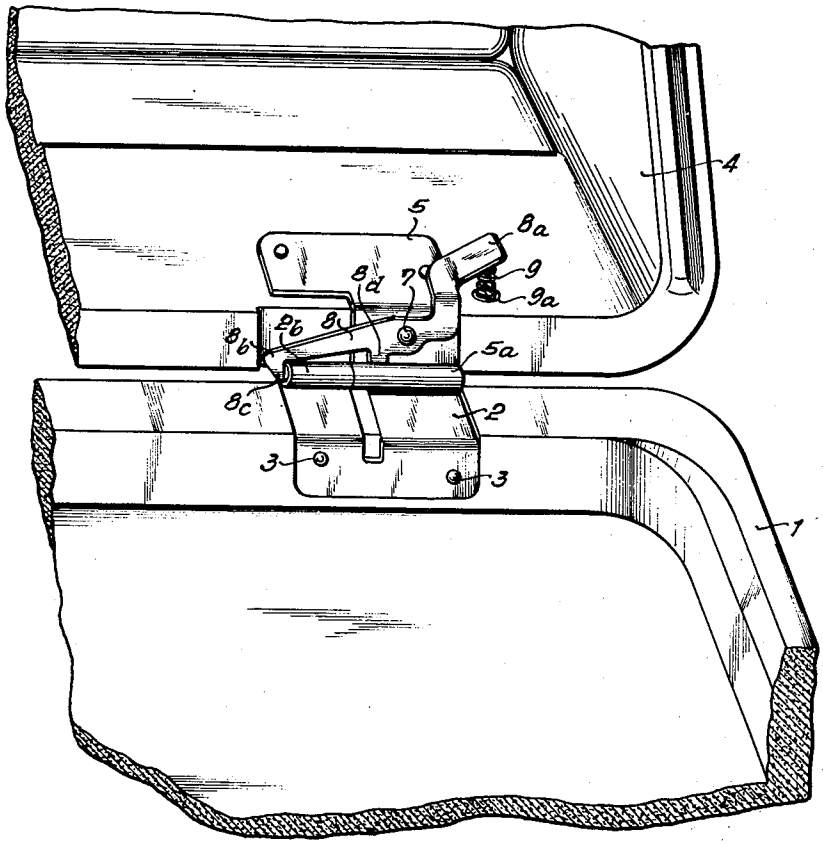


FIG. 2

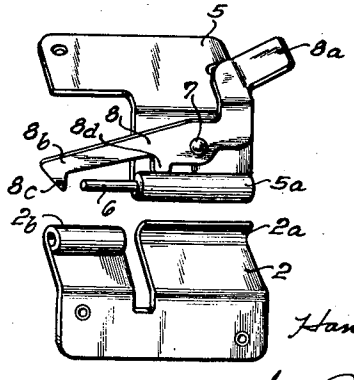


FIG. 3

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SEPARABLE HINGE

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1 Claim. (Cl. 16—177)

This invention relates to separable hinges and more particularly to separable hinges for connecting the cover to the base of a casing for a portable typewriter.

It is known to provide hinges for this purpose which include two parts that may be separated by lateral sliding, thus permitting the complete removal of the cover from the casing base, and it has also been proposed to provide such hinges with latches that prevent an inadvertent separation of the cover from the casing base.

Objects of this invention are to provide separable hinges which include safety latches and which are of simple and economical construction. A further object is to provide a separable hinge of the type stated in which the safety latch takes the form of a lever pivotally mounted on one hinge member and provided with a stop which retains the latch lever in position to permit the ready connection of the hinge members.

These and other objects and the advantages of the invention will be apparent from the following specification when taken with the accompanying drawing in which:

Fig. 1 is a fragmentary perspective view of the interior of an open typewriter casing provided with a separable hinge embodying the invention; and

Figs. 2 and 3 are perspective views of the individual hinge members.

In the drawing, the reference numeral **1** identifies the base of a casing on which a portable typewriter may be mounted by means, not shown. A sheet metal hinge member **2** is recessed into the rear flange of the casing base **1** and has one portion **2***a* bent upwardly to form a guide and another portion **2***b* formed as a sleeve for receiving a pin on the complementary hinge member. The part of hinge member **2** remote from guide **2***a* and sleeve **2***b* is bent down at right angles and secured to the rear flange by rivets **3**. The casing cover **4** has its rear flange or wall recessed to receive the other hinge member **5** which is also of sheet metal with a rolled portions **5***a* forming a socket in which a pin **6** is rigidly mounted.

It is to be understood that two hinges are provided and that the parts so far described are more or less conventional and the manner in which the cover may be moved laterally of the base to engage or disengage the hinges is well understood in the art. In accordance with the invention, a latch lever **8** is pivotally mounted on hinge member **5** by a rivet **7** for angular movement in the plane of the axis of the pin **6**; the latch lever being parallel to the inner edge of the cover **4** and having a bent end **8***a* engaged by a coiled spring **9** at the rear wall of cover **4** to yieldingly retain the lever in the latching position illustrated in Fig. 1. The spring **9** may be retained on the

cover **4** by any convenient means but preferably, as shown, by seating it in cylindrical hole **9***a* formed in the back wall of the cover **4**.

The other end **8***b* of the latch lever **8** is formed with a projecting portion **8***c* which is in axial alinement with and spaced from the free end of the pin **6**. The projecting portion **8***c* has an inner surface for extending across and preferably engaging the end of sleeve **2***b* of hinge member **2**, when the members are operatively connected, to prevent an inadvertent separation of the hinge members.

It is to be noted that the outer surface of the projecting end **8***c* of lever **8** is inclined to the axis of pin **6** to engage sleeve **2***b* of the hinge member **2** and lift the latch lever against the force exerted by spring **9** upon relative sliding movement of the hinge members to connect the same. A stop **8***d* is provided on the latch lever **8** for engagement with cooperating stop means, consisting of the rolled portion **5***a* of member **5**, to limit the tilting of lever **8** by spring **9** and arrest it in such position that the outer inclined surface of end portion **8***c* will engage and ride upon sleeve **2***b* of member **2** to drop automatically into the latching position when the hinge members are to be connected.

The guide surface **2***a* facilitates the correct alinement of the hinge members when the cover is to be secured to the base. When the cover is to be removed, a slight pressure of the thumb against the end **8***a* of latch **8** will be sufficient to overcome the force of spring **9** and tilt the latch into inoperative position so that the cover may be slipped sidewise and separated from the base.

I claim:

A separable hinge comprising a pair of hinge members for mounting on a base and a cover respectively, one member having an open ended sleeve and the other hinge member having a pin complementary to said sleeve and adapted to be seated in or removed therefrom by relative lateral sliding of said hinge members; a latch lever pivotally mounted on said other hinge member about a pivot axis which is transverse to the axis of the pin so that said latch lever is angularly movable in a plane passing through the axis of said pin, said latch lever having a projecting end in axial alinement with and spaced from the free end of said pin, said projecting end having an inner surface for extending across one end of said sleeve beyond the free end of the pin when said hinge members are connected to thereby prevent relative lateral sliding movement of said hinge members to separate the same, and an outer surface inclined to the axis of said sleeve; cooperating stop means on said latch lever and said other hinge member to arrest said latch lever in position to cause the inner surface of said projecting end to be in axial alinement with said pin; and spring means yieldingly retaining said latch lever in the axial alinement stop position, whereby said latch lever may be tilted by cooperation of said sleeve with the outer surface of said lever projection against the action of said spring means to permit entry of said pin into said sleeve for the connection of said hinge members.

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