Feb. 6, 1951

H. P. GLASS

2,540,819

KEY CASE

Filed June 14, 1948

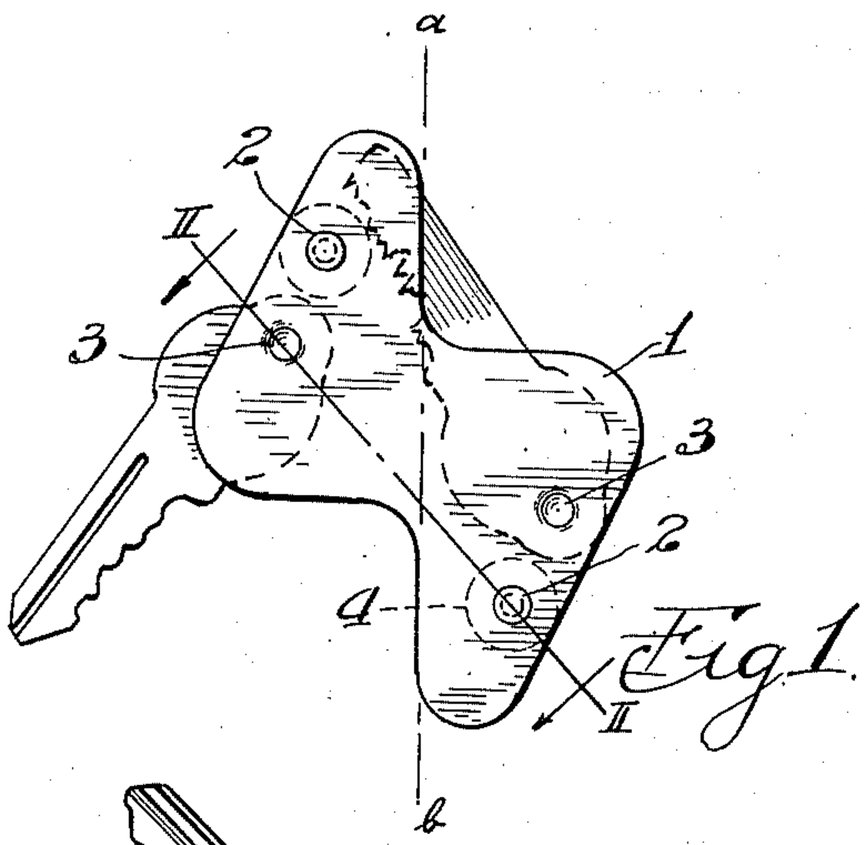

Fig. 1.

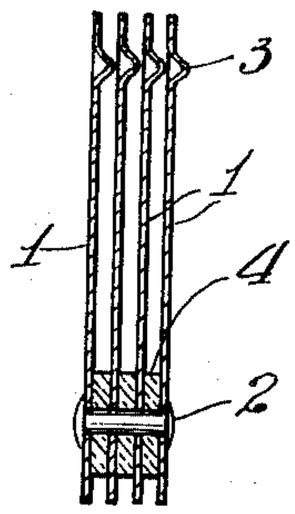

Fig. 2.

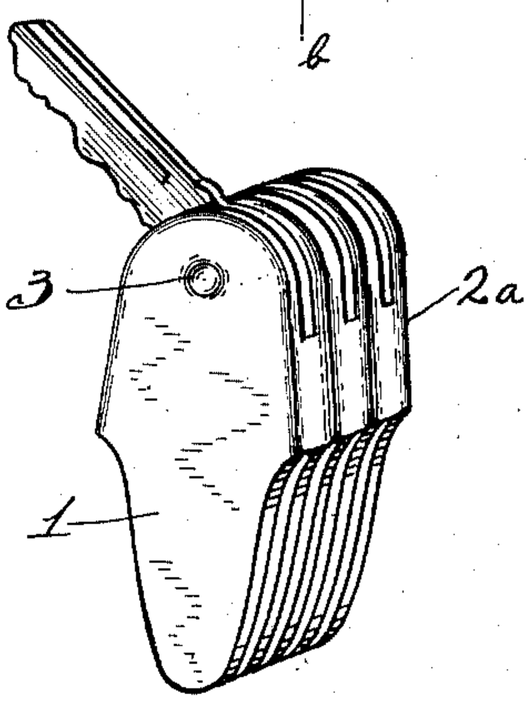

Fig. 3

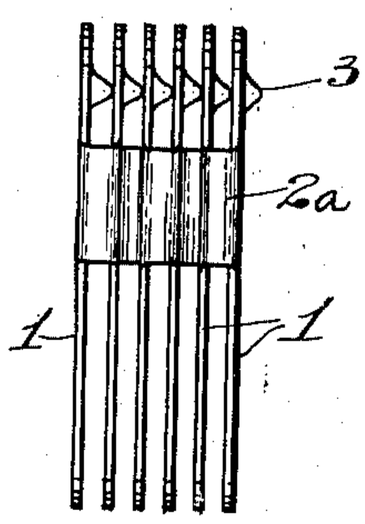

Fig. 4

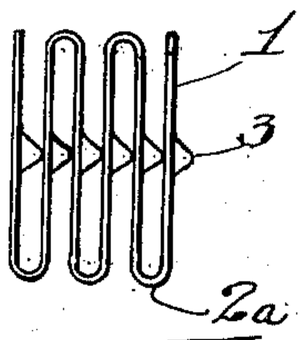

Fig. 5.

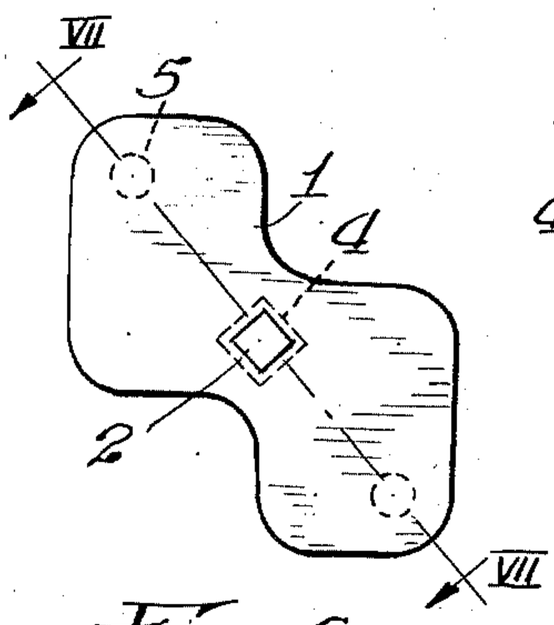

Fig 6.

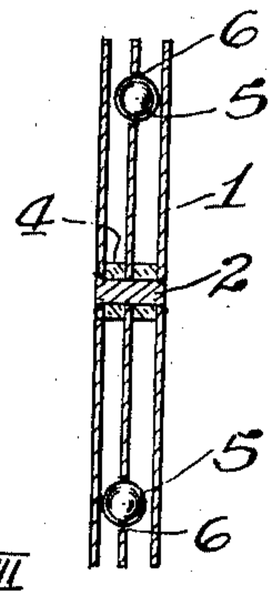

Fig. 7.

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KEY CASE

Henry P. Glass, Chicago, Ill.

Application June 14, 1948, Serial No. 32,972

1 Claim. (Cl. 70—456)

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The present invention relates to key cases of the type which accommodate a plurality of keys in a manner that they can be rapidly withdrawn from the case for use and rapidly moved back into the case by a single sliding motion around a pivot.

It is an object of the present invention to provide a key case which is inexpensive to produce, which is compact and requires only a minimum of space and parts, which is attractive in appearance and light in weight, and which permits the insertion and removal of keys rapidly while retaining them safely. In conjunction with the latter object it is a further and major object of the invention to provide an extremely simple and nevertheless secure retaining means.

The key case according to the invention comprises, in combination, a plurality of flat plates connected in spaced relation with their flat surfaces substantially parallel to each other, and key retaining means disposed adjacent one or more of the edges of said plates.

The various objects and advantages of the invention will be better understood by reference to the following detailed explanations and the accompanying drawings which show different embodiments of the principles underlying the invention. In these drawings, where like numbers refer to like parts,

Fig. 1 is a plan view of the preferred embodiment of the invention;

Fig. 2 is a cross sectional view taken along the line II—II of Fig. 1, showing the manner in which the plates are stacked, connected and spaced;

Fig. 3 is a perspective view of a key case illustrating another advantageous embodiment of the invention;

Fig. 4 is a side elevational view of the key case shown in Fig. 3;

Fig. 5 is a top view of the key case according to Figs. 3 and 4;

Fig. 6 is still another embodiment of the invention wherein the plates are connected by a single connecting means such as a rivet or a screw, or by a small, strong spring, if desired, and

Fig. 7 is a cross sectional view of Fig. 6 taken along the line VII—VII and illustrating also an alternate form of key retaining means.

Referring now to Figs. 1 and 2, a key case is shown here which comprises four plates. It is, of course, understood that a smaller or larger number of plates can be arranged to constitute such a key case. There are three spaces between

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the plates to accommodate altogether six keys which are secured between the plates by means of the projections 3 which fit into the ring holes in the keys and which are pressed out of the plate metal as the plates are cut by means of dies. The plates can, of course, be made in any other convenient manner without departing from the spirit of the invention.

The plates have a conformation which makes it possible to cover the largest portion of the keys when retracted into the case by moving them around the pivots constituted by the projections 3, leaving small edges of the keys uncovered so that they can be conveniently withdrawn. The plates may, of course, be of different conformation, but the embodiment shown provides a very desirable form, inasmuch as it makes available a large smooth surface which, on the outer plates, can be utilized as a name plate or the like. Moreover, it is possible with a key case made of plates thus formed to exert a certain amount of leverage on a key inserted in a key hole. The conformation illustrated is similar to an oblique I thus providing surface areas which present substantially oppositely shaped planes on the two sides of a dot and dash line *a*—*b* (Fig. 1) drawn through the center, and providing space and retaining means for two keys between any two plates of the device.

The plates 1 are connected by rivets 2 around which are placed spacers 4 such as plain metal washers or plastic washers of different colors.

The embodiment of the invention shown in Figs. 3, 4 and 5 employs, in general, the same principle as the embodiment according to Figs. 1 and 2. The key case shown here is made to accommodate only one key in the spaces between each pair of plates. The spacing distance is determined by the connecting means 2*a* and the key retaining means are formed by projections 3 punched out of the plates alternately in opposite directions, with indentations in back thereof to permit the plates to move slightly towards adjacent plates when keys are inserted in or withdrawn from the case.

The entire case can be conveniently made by first stamping a blank out of strong material such as stainless steel or chromium steel plate which has a sufficient amount of resiliency to permit the plates to move slightly. This blank can be made with as many plates and connecting strips as desired. It is then bent in the manner shown along the narrow strips 2*a* which connect the plates as more clearly indicated in Fig. 5. The projections 3 which form the key

retaining means now extend through the spaces between the plates.

The embodiment of the invention illustrated in Figs. 6 and 7 is similar to that according to Figs. 1 and 2, the main differences being that only one connecting and stopping means is provided and that balls 5 of a hard material are disposed in bores 6 for retaining the keys. The connecting and stopping means is in the form of a square rivet 4 to prevent the plates from fanning out with respect to one another.

In the embodiments according to Figs. 2 and 6 it is possible to have the holes for the connecting means extruded, which makes it possible to eliminate the spacers between the plates, inasmuch as the extruded portions around the connecting means will determine the distance between the plates.

While I have clearly illustrated and explained the most desirable forms of my invention, I do not wish to be limited thereto but what I desire to protect by Letters Patent is set forth in the appended claim.

I claim:

A key case for retractably accommodating a plurality of flat keys comprising, in combination, a plurality of flat plates disposed parallel to each other, connecting means for said plates comprising two rivets disposed transversely of and through said plates, spacing means comprising washers disposed intermediate said plates and around said connecting means, and key retaining means in the form of small projections on said plates and having cavities in back thereof and extending adjacent opposite edges of each of said plates except one and in axial alignment intermediate said plates, said connecting means being oppositely disposed adjacent the same edges as said key retaining means, thereby limiting the outward movement of keys pivoted on adjacent retaining means and limiting the inward movement of keys pivoted adjacent the opposite edge.

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