

[54] KEY HOLDER

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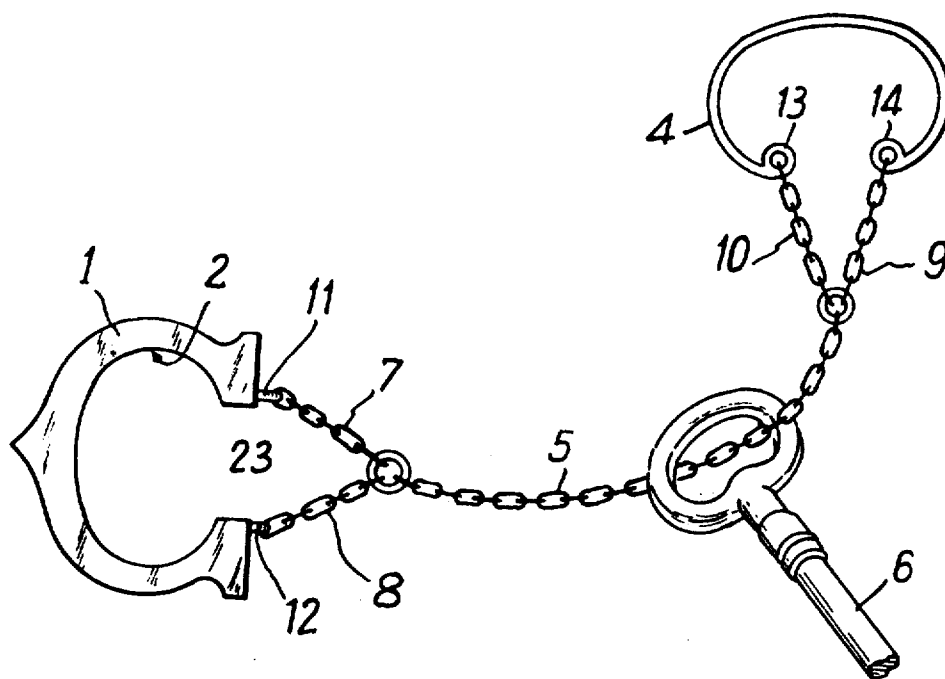
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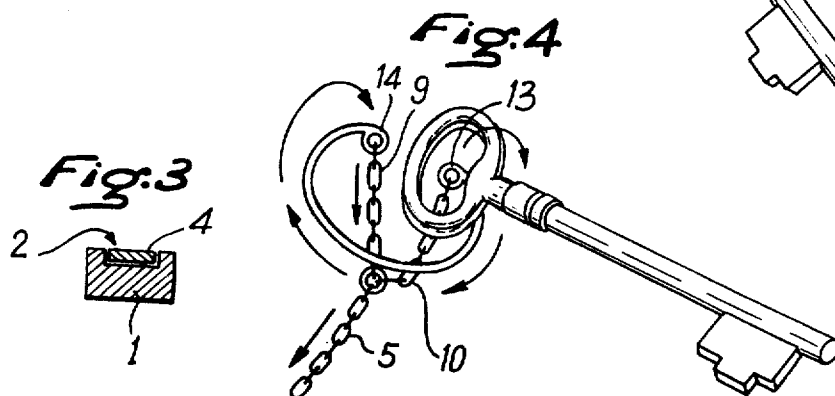
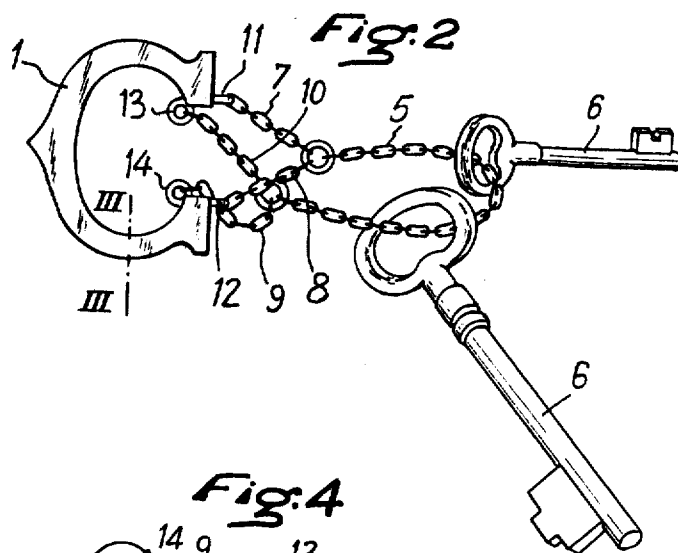
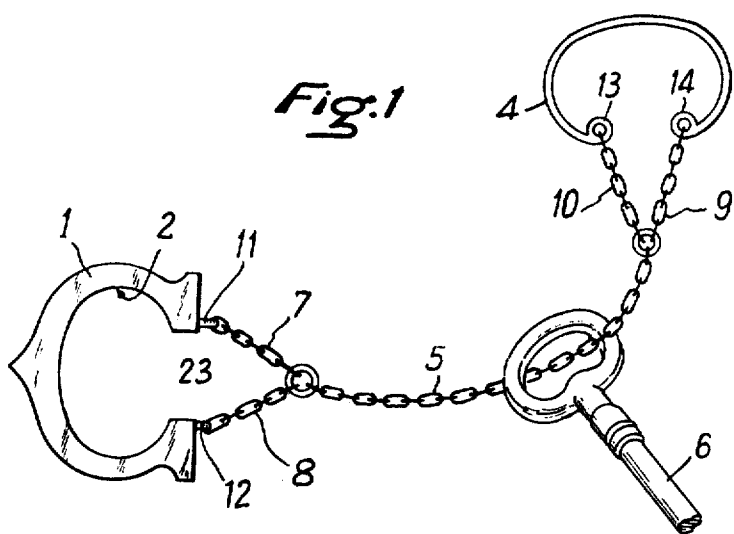
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ABSTRACT

Key holder comprises arcuate rigid member and an arcuate resilient member which is a spring fit into said rigid member. The two members are connected by a chain which preferably terminates at each end in two branches, with the branches at one end being connected to opposite ends of the rigid member and the branches at the other end connected to opposite ends of the resilient member.

7 Claims, 4 Drawing Figures





KEY HOLDER

This invention relates to an improved key-holder.

In addition to those key-holders which consist of rigid rings which may be open when necessary, key-holders are known in which the keys are held by a chain the ends of which are connected together by fastening means of various types.

This latter type of key holder has the advantage of providing a more flexible connection between the different keys than is provided by the rigid rings. This makes it possible to insert the set of keys in the pocket of a person's clothing so as to take up less room, since the keys can position themselves with respect to each other in dependence upon the space available.

Key holders of this type have, however, the disadvantage of being relatively fragile and frequently break at the point where the two ends of the chain are connected. It is also rather inconvenient to add or remove keys.

The present invention relates to a key holder of the chain type which avoids the foregoing inconveniences.

It is an object of this present invention to provide as a new article of manufacture a key holder of the type in which the keys are connected by a chain passing through holes in the keys. This key chain is characterized by the fact that it comprises a rigid first member having a concavity and a resilient second member the convexity of which corresponds to the concavity of the first member so that it can be elastically engaged there-within. The chain which holds the keys is connected at one end to a point on the rigid first member and at its other end to a point on the flexible second member.

In a preferred embodiment of the invention the chain which holds the keys carries at each end two branch chains which are connected on the one hand to two sides of an opening in the rigid member and on the other hand to the two ends of the resilient member.

In a preferred embodiment of the invention the edge of the concavity of the rigid member is provided with a central groove adapted to receive the resilient member, which is held in that groove by its own elasticity after having been squeezed into the concavity.

In order to locate the keys on a key chain according to the invention, it suffices, after having separated the resilient member from the rigid member, to mount the keys on the chain by passing the rigid member or preferably the elastic member through the holes in the keys, and then replacing the resilient member inside the rigid member.

It will be seen that the engagement of the keys is particularly easy, even in the preferred embodiment in which the chain has two branches at each end, since if these branches are long enough they in no way inhibit the mounting of the keys on either one of the members.

In the preferred embodiment of the invention comprising two branches at each end of the chain, it will be noted that the keys are held on the key ring with double security because even when the rigid and resilient members are not interfitted, the keys are retained on the chain unless deliberately removed by causing them to travel over a particular path of travel which is necessary to bring this about.

In order that the invention may be better understood, one embodiment thereof will now be described, purely by way of illustration and example, with reference to the accompanying drawings on which:

FIG. 1 is a view showing a preferred embodiment of the invention with the key chain open;

FIG. 2 shows the key chain of FIG. 1 in the closed position;

FIG. 3 is a sectional view taken along the line III—III of FIG. 2; and

FIG. 4 is a view showing how a key is positioned to pass over the resilient member.

FIG. 1 shows the rigid member 1 which, in the present case, is generally C-shaped, but which may have a different shape so long as it has a concave edge 2 leading to an opening 3.

FIG. 1 also shows that the resilient member 4 has a shape mating with that of the member 1. The concave edge 2 of the member 1 defines a median groove which receives the resilient member 4 as shown in section on FIG. 3. FIG. 1 also shows the chain 5 which connects the keys, such as 6.

In the preferred embodiment which is illustrated in the drawings, the chain 5 terminates at each end in branch chains 7, 8, 9 and 10. The branch chains 7 and 8 are connected to the rings 11 and 12 on opposite sides of the opening 3 in the rigid member 1, while the branch chains 9 and 10 are connected to rings 13 and 14 at the ends of the resilient member 4, which may advantageously consist of a spring having a rectangular section.

FIG. 2 shows the key chain in the closed position with the resilient member 4 engaged inside the concave opening 2 in the rigid member 1.

It will be appreciated that when the resilient member 4 is held in the rigid member 1 (as may be seen in particular on FIG. 3) the keys 6 are fastened firmly together.

It will also be seen that even if the resilient member 4 becomes accidentally separated from the rigid member 1, the keys 6 will still be held on the chain 5 without passing spontaneously over the members 1 or 4 because of the very particular movement which it is necessary to impart to the hole of a key in order to pass it over such a member. This movement is indicated by the arrows on FIG. 4, on which only the resilient member and the chains which are attached thereto are shown.

In order for the hole in the key 6 to pass over the resilient member 4, it is first necessary to place the chain sections 9 and 10 in the position shown on FIG. 4 with respect to the resilient member 4.

The hole in the key 6 is then passed over one of the rings on the elastic member and the branch chain which is attached thereto.

In the case of FIG. 4, the hole in the key 6 is passed over the ring 13. It then suffices to push the key in the direction shown by the arrows to cause it to travel the length of the resilient member 4 and come off it at 14, so as to end up on the chain 5.

It will thus be seen that the introduction of a key into the key carrier may be effectuated in a particularly simple manner.

It will be also noted that the introduction of a key may be effectuated from either end of the chain carrying the resilient member or from the side of the chain carrying the rigid member, to the extent of course to which the hole in the key is large enough to be able to pass over the rigid member.

Moreover it will be of course necessary for the members of the chain 7, 8, 9 and 10 to have a sufficient length.

In order to remove the keys one operates in the opposite direction.

The embodiment which has just been described is the preferred embodiment of the invention. However, it is also possible, in a simplified embodiment, to connect one end of the chain 5 to the rigid member 1, for example by one of the rings 11 or 12 and the other end of the chain 5 to one of the two rings 13 or 14 of the resilient member 4. In this simplified embodiment it is the maintenance of the resilient member 4 inside the concave contour of the rigid member 1 which alone closes the key chain and prevents separation of the different keys mounted thereon.

It will also be noted that, in the embodiment shown on the drawing, the direction in which the resilient member is engaged in the rigid member is of no importance, since these two members are symmetrical.

It will of course be appreciated that the embodiment which has just been described has been given purely by way of illustration and may be modified as to detail without thereby departing from the basic principles of the invention.

In particular, the shape of the cavity in the rigid member may be different from the one shown in the drawing, the essential characteristic of this cavity being that it is capable of holding the resilient member, which must have a corresponding shape.

It goes without saying that, contrary to what has been shown in the drawing, the concavity in the rigid member need not be symmetrical in shape, in which case it would not be possible to mount the elastic member in the rigid member in either direction.

Finally, it is also obvious that the resilient member could be held inside the rigid member by something other than a median recess in the rigid member in which the resilient member is located.

In particular, it would be possible to provide bosses positioned from place to place along the edges of the concavity of the rigid member. It would also be possible to make the elastic member with a U-shaped section,

the arms of which would extend on opposite sides of the rigid member so as to hold these two members together.

What is claimed is:

1. Key holder which comprises an arcuate, generally C-shaped rigid member having an elongated concave surface defining the inner edge of the C, said concave surface being provided with a median groove extending lengthwise thereof, an arcuate resilient member mating with said groove and dimensioned to be received within said groove without protruding radially therefrom, and a chain connected by one of its ends to said rigid member and by its other end to the resilient member.
2. Key holder as claimed in claim 1 in which said chain is connected to said rigid member by a ring located near one end of said rigid member at a point outside said concave surface.
3. Key holder as claimed in claim 1 in which said concave surface and resilient member are symmetrical about a common axis when said resilient member is located in said groove.
4. Key holder as claimed in claim 1 in which the chain is connected to the resilient member by a ring at one end thereof located on the inside of said resilient member.
5. Key holder as claimed in claim 1 in which one end of the chain is connected by two branch chains to the two ends of the resilient member.
6. Key holder as claimed in claim 1 in which one of the ends of the chain is connected by two branch chains to each end of the rigid member.
7. Key holder as claimed in claim 1 in which each end of said chain terminates in two branch chains, with each branch chain at one end of said chain being connected to a different one of the ends of said rigid member and each branch chain at the other end of said chain being connected to a different end of said resilient member.

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