

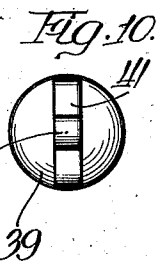
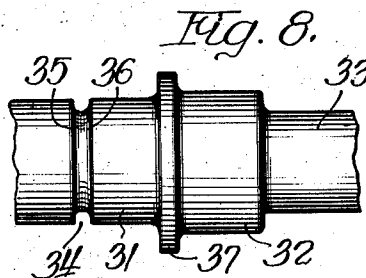
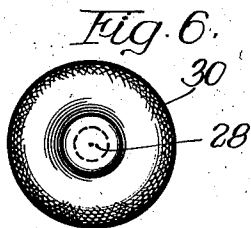
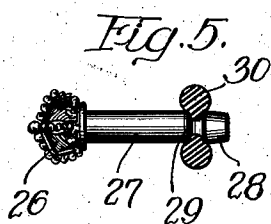
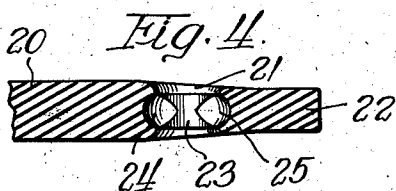
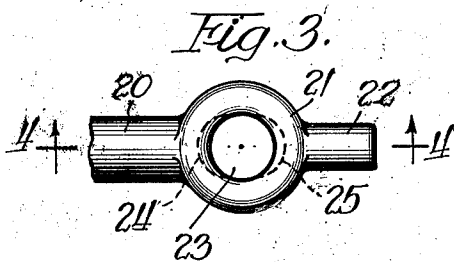
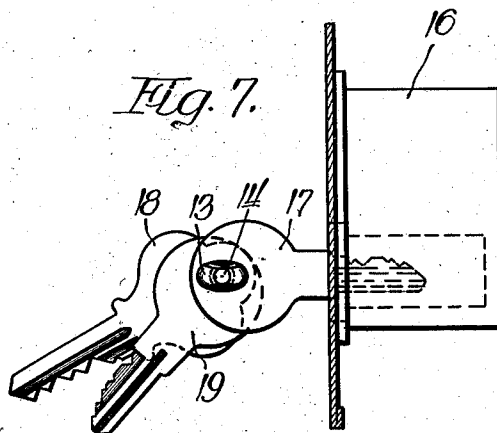
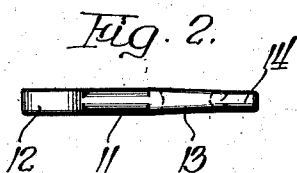
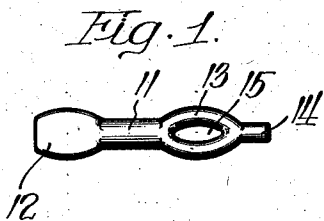
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RETAINING DEVICE

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RETAINING DEVICE

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6 Claims. (Cl. 59—98)

This invention relates broadly to retaining devices and is explained and illustrated herein particularly in conjunction with retaining means and holders for keys and the like.

5 The principal object of the invention is to furnish a retaining device and, as shown in the drawing, a holder which can be manufactured cheaper and easier and which at the same time will be more serviceable, more efficient and more durable in use than holders of this class heretofore known. Another object of the invention is to furnish holders which, in addition to the utilitarian aspects indicated above, render numerous novel possibilities for design and application in new fields.

15 My novel retaining device may be made of flexible or resilient material, e. g., of rubber or the like. The use of this material introduces novel features and novel possibilities. The material belongs to the class of substances which lend themselves to color treatment, i. e., the invention contemplates, among other things, the use of a material capable of being integrally colored. Another new feature resides in the use of a material and a structure of such a character as to permit the casting or molding of the article in one piece. Certain structural improvements have to do with means for positioning objects on such a holder in relatively fixed or rigid position relative to each other. This particular feature will be of utility in the case of a holder for keys in combination with ignition switches or locks and the like, particularly in the case of switches and/or locks which in their normal use are subjected to vibration as is the case, e. g., with ignition locks in automobiles. The rattling of the keys will be eliminated and scratching of the lock surface or of the dashboard and/or other fixtures where the switch or lock is placed will be prevented because keys attached to the novel holder can be positioned away from the switch.

25 The article made in accordance with this invention comprises, in one embodiment, a supporting means or carrier portion for receiving and for supporting, either relatively loosely or rigidly an object, together with locking and retaining means for retaining said object on said support or carrier portion, and means for actuating said retaining or locking means to place said object on said supporting means or carrier portion.

30 The invention is not limited to key holders, but may be used, in certain embodiments, as a retaining device, e. g. as a button for garments, particularly in the case of rain coats or the like. It

may also be used as a closure for containers, and for other purposes.

Other objects and features of the invention will appear from the following detailed description which is rendered with reference to the accompanying drawing, in which

Fig. 1 shows the plane view of one embodiment of the invention, representing a key holder;

Fig. 2 illustrates the same device in side view;

Fig. 3 shows a portion of a different embodiment on an enlarged scale;

Fig. 4 represents a longitudinal section of the part shown in Fig. 3;

Figs. 5 and 6 illustrate a further embodiment;

Fig. 7 shows the use of the novel key retaining device in conjunction with a switch lock or the like;

Fig. 8 indicates on an enlarged scale the supporting portion or carrier of a further embodiment; and

Figs. 9 and 10 show still another embodiment of this invention.

Referring now to Figs. 1 and 2, the device illustrated in these figures may be made of rubber or any other suitable flexible or resilient material, and may comprise a supporting means or carrier portion designated by the numeral 11. Integral with the supporting portion is an end portion or base 12 which may be flat and represents an enlargement at this end of the device for retaining keys on the supporting portion 11. At the other end of the supporting shaft 11 is an enlargement 13 terminating in a nipple 14. The enlargement or locking member 13 is provided with an opening or perforation 15. Objects, such as keys, are placed on this holder by pulling the nipple 14 thru the opening on the handle portion of a key and stretching the retainer portion 13 by means of the nipple, thus diminishing its size and permitting it to slip thru the opening on the key. The support or carrier portion 11 may be made larger than the opening on the average key. If this is the case, the keys will be positioned on the shaft in relatively rigid position and the radial position of one key can be determined selectively relative to any other key on the device.

The advantage of such a structure is apparent from Fig. 7. Numeral 16 in this figure indicates a switch lock and 17 indicates the key inserted for operating the lock. This key is assumed to be secured to a holder such as the one shown in Figs. 1 and 2 and the end of this holder is indicated in the drawing Fig. 7 by the numerals 14 and 13 corresponding to the numerals applied in Figs. 1 and 2 and designating identical parts. It is also

assumed that two other keys, 18 and 19, are attached to the device. Since the supporting shaft or carrier portion 11 of this holder is assumed to be slightly larger than the holes on the keys, it is apparent that it will be possible to place the keys away from the lock or, with relation to each other, roughly in the position as indicated in Fig. 7. The keys which are not in use will be maintained in a position away from the switch lock, and scratching of the switch lock will be prevented and rattling will be eliminated. But even assuming that the keys are loose on the supporting means or shaft 11, the scratching of the lock will also be eliminated with this holder. The keys which are not in use will simply position themselves at a right angle to the key 17. Displacement of the keys to any extent in response to the vibrations of the switch lock is excluded since all the keys are placed on the relatively short shaft or carrier which does not permit motion of one key relative to the other to any extent.

It should be observed at this point that the device may be made of one single piece. Attention may also be called to the fact, that any color or combination of colors may be employed in the making of the device. A suitable portion of the device, for example the base portion or enlargement 12 may be employed for carrying any desired designation indicating either the use of the device with reference to the keys or the owner thereof, or bearing any distinguished mark, designation or matter that may be suitable or desired. Such descriptive or explanatory matter may be printed on the corresponding portion of the device, or may be represented by an emblem secured to the device, or may be executed integral with a suitable portion or portions of the device. The carrier shaft and the operating member or nipple are round in the example discussed above, and the base as well as the retaining means are flat. The form of any portion of the device is a matter of choice. If desired, the entire device may be punched or stamped out of flat material, or cast with an angular shaft.

It is understood, of course, that the base portion 12 and the retaining portion or device 13 may be formed differently. I wish to call attention at this place to the fact that the perforated enlargement 13 is in reality an operating device and takes the place and function of a lock for putting keys on the holder and for removing them therefrom. The base as well as this locking device may take different form, e. g., as indicated in Figs. 3 and 4. Numeral 20 designates in these figures the supporting means or carrier shaft; 21 indicates the perforated retaining device or locking means; and 22 shows the nipple or operating means, while 23 indicates the opening in the retaining device 21. In order to facilitate the stretching of this relatively large portion 21, I have provided internal grooves indicated by numerals 24 and 25 in continuation of the opening 23 on opposite sides thereof, as shown.

It will be seen from the drawing as far as it has been discussed above, that the nipple or operating members 14 and 22, respectively, is slightly smaller than the corresponding supporting portions 11 and 20, respectively. The retaining or locking portions 13 and 21, respectively, taper from the supporting portion to the member 14. This structure is preferably used in conjunction with an embodiment in which the supporting portions 11 and 20, respectively, is larger than the openings on the keys which are to be attached to this device. The carrier shaft or supporting

portion may taper thruout and/or the nipple and the shaft may be made of the same size if desired.

The embodiment discussed above with reference to Figs. 3 and 4 shows a perforated retaining portion or, as explained, a locking device, which is different from the one shown in Figs. 1 and 2. The first is substantially oval and the second is round. This round portion may be made in ornamental form to represent a miniature tire or the like. It is understood, of course, that the base portion of the device may also assume any desired and suitable shape and form, such as is indicated for example at 26 in conjunction with Fig. 5, illustrating an embodiment in which the base portion is round and made in the form of an ornamental crown.

Referring now particularly to Figs. 5 and 6, numeral 26 indicates the ornamental base or end portion. Reference numeral 27 indicates the supporting shaft or carrier which may terminate at 28 in a nipple-like extension. Near the end of the supporting shaft 27 is provided a groove 29. The retaining or locking member 30 is, in this example, removable and is represented by a circular ring which may receive an ornamental form, for example, the form of a miniature tire engaging the annular groove 29 on the carrier shaft 27. The member 30 may be made integral with the shaft if desired.

The manner of attaching keys to the device, as shown in Figs. 3 to 6, inclusive, is substantially similar, as previously described with reference to Figs. 1 and 2. In case of the embodiment as shown in Figs. 5 and 6, it is, of course, necessary to remove the retaining member 30 prior to attaching or removing keys. However, if the member 30 is integral with the device, the attachment and removal of keys will be accomplished by folding and bending the member 30 so as to slip it thru the holes on the keys. The removal of keys is in any case likewise simple, necessitating merely the exertion of a sufficient pull.

It will be noticed that the overall length of the device can be influenced by the form of the base portion and the corresponding locking portion. These portions may receive any desirable and suitable form. The base may, e. g., be shaped like a disc and the locking portion may spread laterally instead of longitudinally. The nipple may be disposed within the opening of the locking portion, if desired.

Fig. 8 indicates, on an enlarged scale, part of the support or carrier portion of a device embodying several additional features. This supporting portion may be made of sectionally different diameter, as indicated by the numerals 31, 32 and 33. An annular groove, or grooves, such as 34, may also be provided if desired for receiving and holding certain keys in predetermined position. A key placed in a groove like groove 34 may be held in position by the pressure exerted by the side-walls 35 and 36 on the material of the key. If desired, a washer-like enlargement or partition 37 or several such partitions may be provided on the supporting shaft. It is understood, of course, that any of the features indicated in Fig. 8 may be used with any of the shafts shown in the various drawings.

Figs. 9 and 10 indicate a side view and an end view, respectively, of an embodiment which may serve the purpose of a detachable button for garments. This embodiment comprises a base consisting of two washer-like members 38 and 39. The material of the garment may be disposed between these members of the base. A

shaft or carrier 40 extends from the member 39 and terminates in a perforated locking member or enlargement 41 carrying a nipple or operating extension 42. The opening 43 is provided for the purpose of permitting easy diminution of size of the retaining member 41 in the same manner as described previously in connection with the retaining or locking members of the various embodiments showing the device as used for holding keys. This button may be attached to a garment, e. g., a raincoat, by slipping the member 38 thru an opening in the garment and thus securely disposing the material of the garment between the two members 38 and 39. The locking portion 41 will serve similar to an ordinary button.

A great number of other structural possibilities will suggest themselves. The interchange of features as well as the use and treatment of suitable materials, as suggested, with reference to the carrier shafts and retaining or locking means as described, may be carried out in numerous combinations. Any of the shaft or carrier structures shown and/or suggested and, likewise any of the retaining or locking structures and/or enlargements may be employed singly or in suitable combination as desired or as required in a particular case. The locking members need not be perforated as I have shown but may be provided with flexible ridges or with longitudinal grooves or may be in the form of overlapping members. However, in an embodiment having a perforated locking member or enlargement, the same may be used for accommodating a hook or lock or the like attached to a chain, if desired. Concerning the use of a material other than rubber or the like or of such material in conjunction with rubber it will be understood that it is entirely possible and within the scope and teaching of this disclosure to employ wholly or partially metallic parts or other materials in any desirable combination, and yet to retain some or all of the novel features. In short, it is clear that it is entirely possible to make the article by substituting materials and by suitably altering the individual parts or by employing certain features in order to attain the object or objects contemplated and made possible by this disclosure. The ornamental features may be taken care of by clipping or otherwise attaching suitable members or emblems bearing such features, or by molding such features directly into the material and integral therewith as is indicated, for example, in the embodiments Figs. 5 and 6. The base and the retaining and locking enlargements may take any desired form. If desired, the base in any embodiment disclosed and/or suggested herein may be provided with suitable means or may be suitably formed for attachment of the corresponding device to an object. The shaft

may be provided with a helical groove for taking the articles, or may receive any suitable forms. The device may be stamped out or may be molded or cast, or if desired, made of parts and suitably assembled.

I have described some of possible modifications in order to show that the disclosure is not limited and is not intended to be limited in any way to the specific structures particularly explained and illustrated nor to the preferred materials specifically mentioned in the foregoing specification. It is also expressly understood that certain features of my invention or the entire invention may be used in conjunction with a device for holding, supporting or retaining other articles than keys, as indicated previously, and also that certain features may be used independently of others within the scope and spirit of the disclosure.

I intend to make use of and to claim as my invention all such structures that may fall within the scope and spirit of the claims which follow.

I claim:

1. A retaining device made integrally of rubber and including, a central carrier portion, a retaining enlargement at each end of said central carrier portion, one of said enlargements being perforated, and an extension integral with said perforated enlargement for flexing the same.

2. A key holder made wholly and integrally of rubber and comprising a perforated locking and retaining member.

3. A key holder made wholly and integrally of rubber, including a shank for carrying keys, and a perforated enlargement at one end of said shank for retaining keys placed thereon.

4. A key holder made wholly and integrally of rubber, including a shank for carrying keys, a perforated enlargement at one end of said shank for retaining keys placed thereon, and an extension on said enlargement for actuating the same.

5. A device for receiving and for retaining articles which is made wholly and integrally of rubber, including a carrier portion and an operating and locking portion integral therewith, said locking portion consisting of an enlargement having a central cavity and forming a flexible locking member at one end of said carrier portion which is capable of lateral displacement for effecting the attachment and the removal of said articles.

6. A key holder made wholly and integrally of rubber, including a carrier shaft, a relatively solid enlargement at one end of said shaft, a centrally hollowed enlargement at the other end of said shaft forming a locking member which is capable of lateral displacement for effecting the attachment and the removal of keys, and an extension on said locking member for effecting said displacement thereof.

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