United States Patent [19]

Johnston

[11] **3,804,307**

[45] **Apr. 16, 1974**

[54] **CHAIN KEY HOLDER**

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[22] Filed: **Sept. 11, 1972**

[21] Appl. No.: **288,037**

[52] **U.S. Cl.** ..... **224/28 C,** 224/28 E, 240/6.4 K, 70/456 R

[51] **Int. Cl.** **A44c 9/00**

[58] **Field of Search** ..... 224/28 E, 28 C, 28 F; 240/6.4 K, 6.4 W, 59; 24/211 R, 3 R; 70/456 R, 456 B, 457

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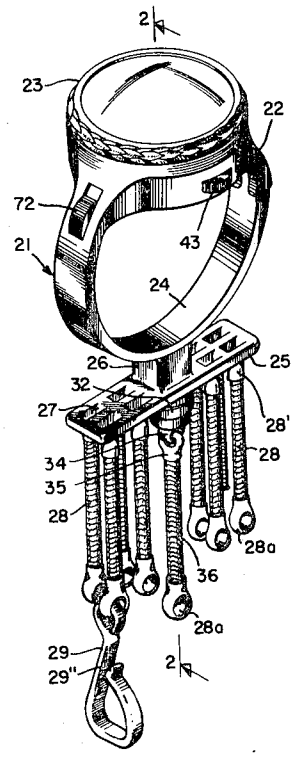
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Primary Examiner—Robert G. Sheridan
Assistant Examiner—Jerold M. Forsberg
Attorney, Agent, or Firm—Polachek, Saulsbury & Hough

[57] **ABSTRACT**

A chain key holder has been provided with a hand attaching portion such as a formation of a ring, interconnecting stem of parts or a bracelet that can be attached to the hand when the keys are taken out of the bag or pocket so that upon carrying packages the keys will not be readily dropped when reaching a door needing to be opened by keys. On the ring or bracelet there is a part of a stem portion through which a chain attaching plate that extends laterally thereof will serve to carry a plurality of flexible chain links to which keys are respectively attached. The key chain links are assembled upon the key chain supporting plate so as to extend from the hand holding portion in a convenient manner to be accessible while still in the hand holding grip with an individual key being accessible to be fitted into a key hole by the fingers without the hand holding portion of the device being released therefrom. A quick detachable means is provided for one of the keys such as the ignition key so that it can be released from the ring holder device and used separately therefrom. This same quick release device may serve to hold a key chain supporting plate accessible upon a depending stem portion.

4 Claims, 14 Drawing Figures



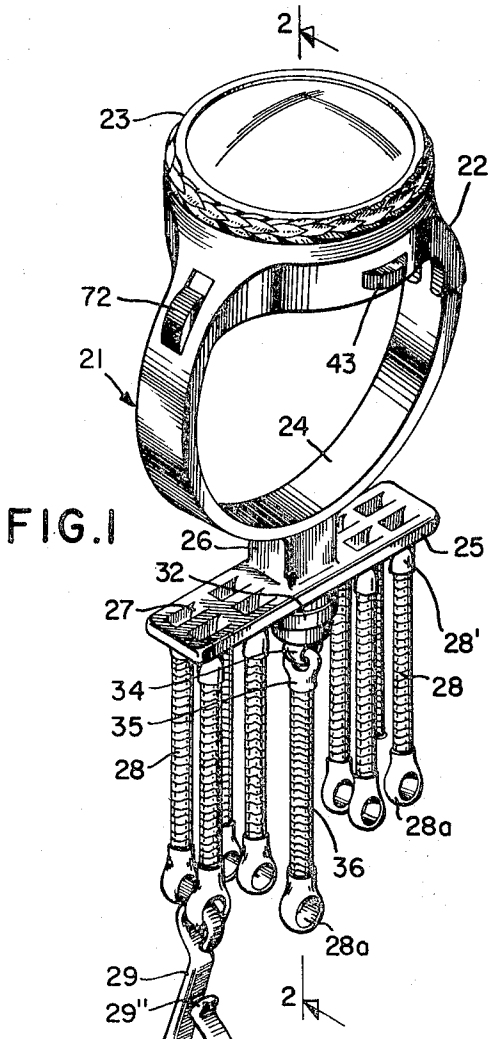


FIG. 1

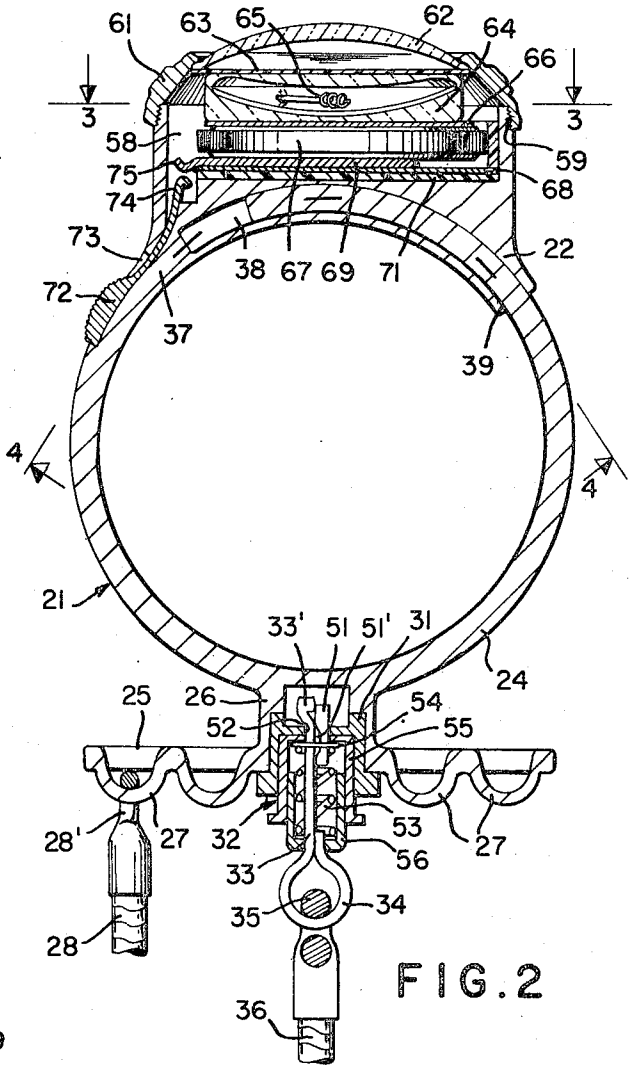


FIG. 2

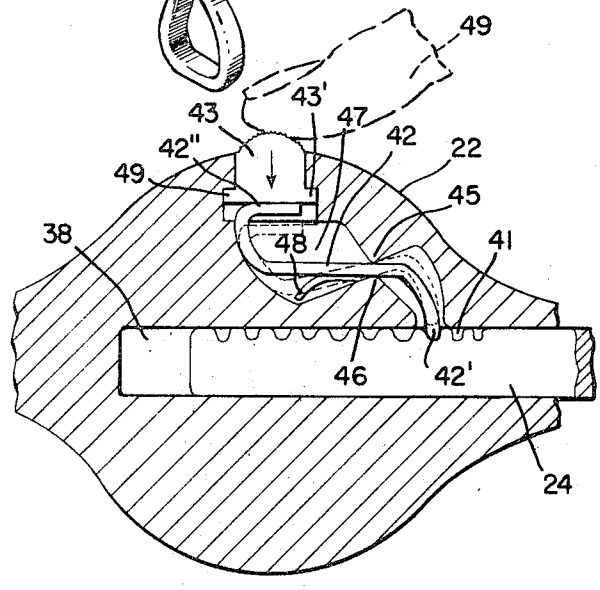


FIG. 4

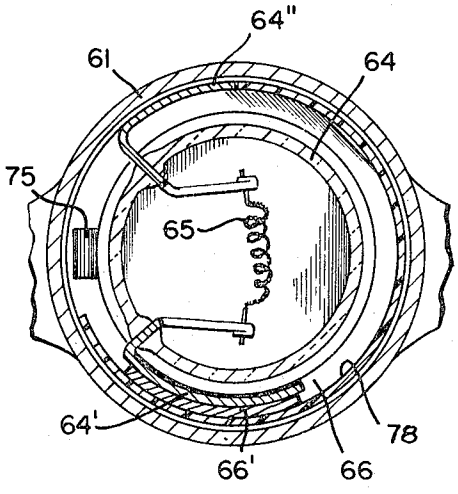


FIG. 3

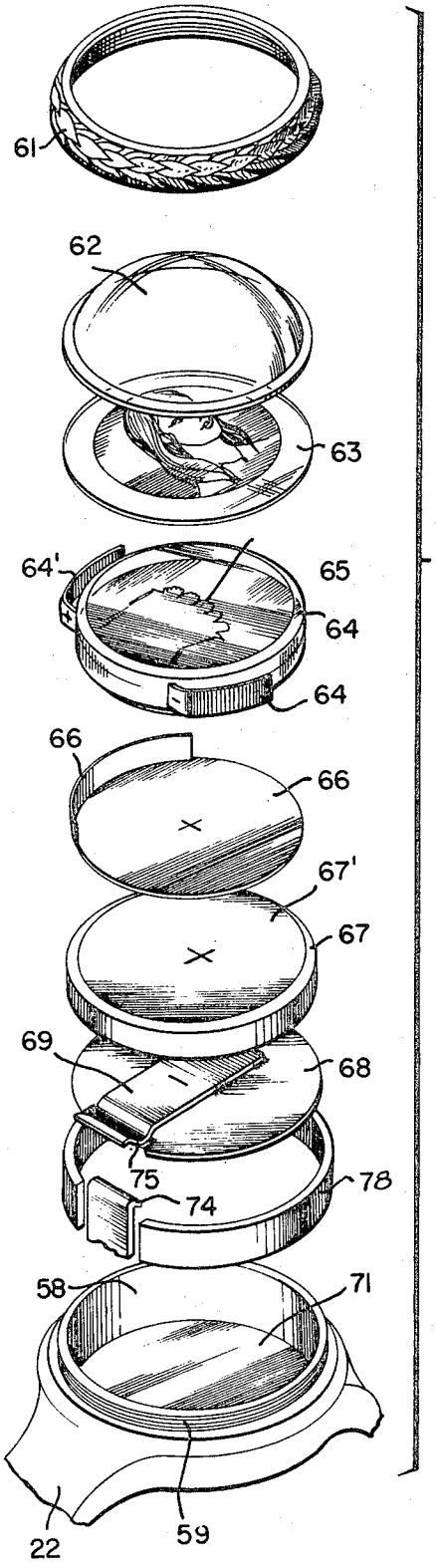


FIG.5

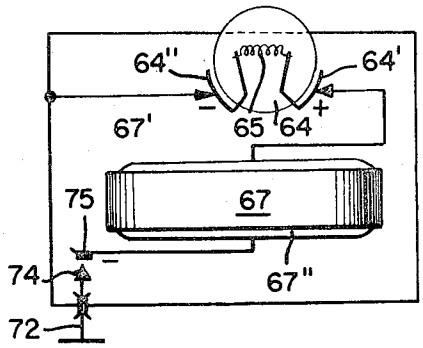


FIG.6

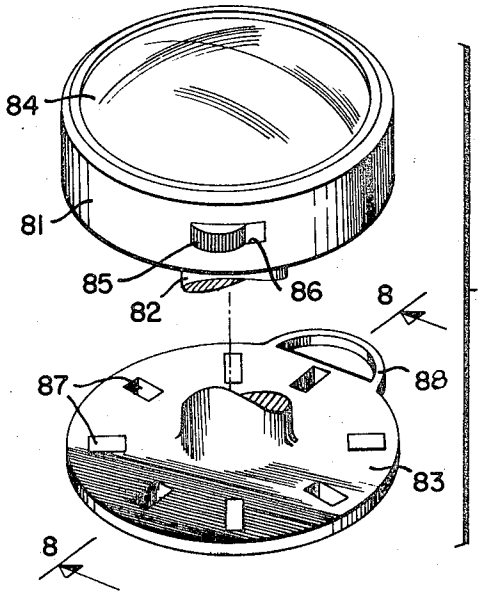


FIG.7

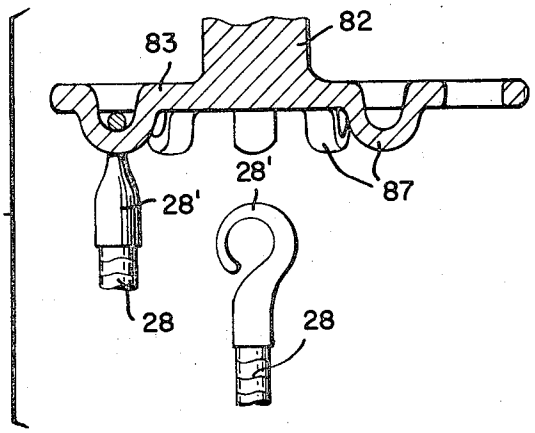


FIG.8

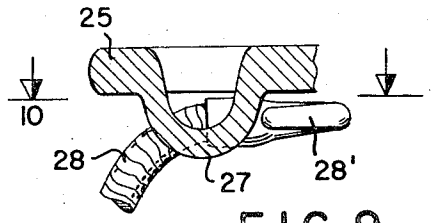
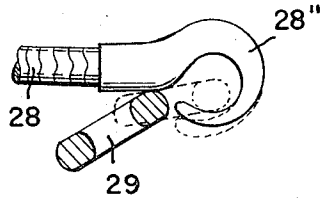


FIG. 9

FIG. 10



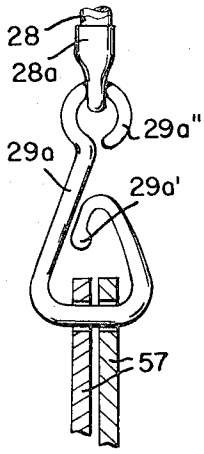


FIG. 11

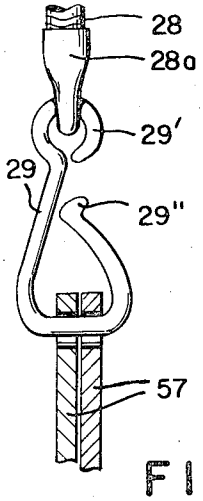


FIG. 12

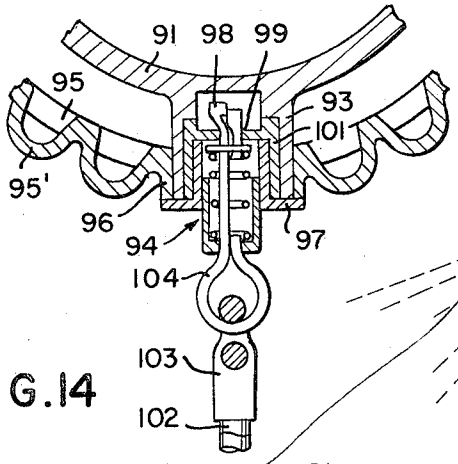


FIG. 14

FIG. 13

CHAIN KEY HOLDER

This invention relates to a key chain holder device.

It is a principal object of the present invention to provide a key chain holder which can be fitted onto any portion of a hand or finger in such a manner that the keys can still be used while on the hand or finger without being detached from the hand so that keys while being made ready for use are not readily lost as so often happens when one is carrying packages and at the same time trying to gain entrance through a locked door.

It is an other object of the invention to provide a key chain supporting holder device having an attaching portion for the attachment of the same to a hand either in the form of a ring or bracelet wherein there is a crown portion in which is disposed a flashlight assembly so that a light can be turned on to render more easy the locating of a key in a key opening when the lock is located in a dark place.

It is a further object of the invention to provide a key chain holder device with a quick release means for at least one of the keys connected to the supporting portion or stem of the device in order that it can be separated therefrom for independent use from the other keys as in the case of an ignition key which one might want to hand to someone without giving them the other keys carried on the holder device.

It is a still further object of the invention to provide a holder device in which key chains can be easily attached to the holder device and released therefrom and in which the chains serving for the attachment of the keys thereto are flexible and soft and easily contained in the hand while carrying the holder device with the keys and which are extensible to readily permit the insertion of the key in a key opening while the device is still attached to the hand.

Other objects of the invention are to provide a hand attaching chain key holder device, having the above objects in mind, which is of simple construction, has a minimum number of parts, easy to assemble, of pleasing appearance, effective and efficient in use.

For a better understanding of the invention reference may be had to the following detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view of the combination ring flashlight with a key holder cross arm with chain key hooks depending therefrom, one of which chain and hook being readily detachably removable from an intermediate location on the transverse holder, the construction being according to one form of the invention.

FIG. 2 is an enlarged vertical and transverse sectional view of the combination ring and key holder as viewed on line 2—2 of FIG. 1.

FIG. 3 is an enlarged transverse sectional view taken through the crown and light bulb of the ring, this view being taken on line 3—3 of FIG. 2.

FIG. 4 is an enlarged fragmentary sectional view of the catch for retaining the ring band in an expanded or contracted setting fitting the different size of fingers of one's hand, the view being taken on line 4—4 of FIG. 2.

FIG. 5 is an exploded view, in perspective and fragmentation, of the several parts of the crown portion of the ring with its lamp bulb and battery being shown in full.

FIG. 6 is a wiring diagram of the battery and lamp bulb contained in the crown portion of the ring.

FIG. 7 is a perspective and fragmentary view of a modified form of the invention in which the interconnection between the battery and lamp bulb assembly, resembling the crown of the ring of the first form of the invention and the key chain holder is interconnected by a stem portion, the ring chain holder being in the form of a circular disk with a loop extending from the periphery thereof.

FIG. 8 is a fragmentary vertical sectional view of the circular ring holder portion of FIG. 7 with the connecting end of one of the hook chains dropped therefrom to show its shape and as viewed generally on line 8—8 of FIG. 7.

FIG. 9 is a fragmentary sectional view of the key holder disk portion with illustration being made as to the manner in which the hook chain connecting portion is connected to a dropped loop of the holding disk.

FIG. 10 is a fragmentary sectional view as viewed on line 10—10 of FIG. 9 with a still further illustration being made of the manner in which the hook connecting portion of the key chain is connected with the dropped loop of the key holding disk.

FIG. 11 is an elevational view of the key connecting end of the key chain illustrating one form or style of hook used for retaining the keys on the chain.

FIG. 12 is a view similar to FIG. 11 but illustrating a further form of key hook for the key chain with keys thereon.

FIG. 13 is a perspective view of a bracelet having a flashlight assembly on the upper side thereof with the bracelet being extended from the hand with a key chain holder assembly releasably attached to the bottom portion of the bracelet and with a combination key ring and key holder assembly of the form of the invention shown in FIG. 1 being shown in perspective and connected to the fourth finger of the hand.

FIG. 14 is an enlarged vertical sectional view as viewed on line 14—14 of FIG. 13 and showing a connection of the transverse key chain holder being detachably held upon a depending trunion by a snap connection for the intermediate key chain removable therefrom to release the full assembly of key chains to adapt the bracelet for retaining a plurality of key chains or but one of them.

Referring now particularly to FIGS. 1 to 6, 21 represents generally the combination ring and key holder constructed according to one form of the invention and which comprises a ring 22 consisting of a crown assembly 23 from which there depends an annular expansible ring portion 24 and a laterally extending key chain holder portion 25 connected to the ring band portion 24 by a stem 26 integrally formed thereon with the laterally extending key chain holder portion 25. The laterally extending key chain holder portion has a plurality of depressed loops 27, four at each side of the stem 26, arranged in pairs but can be arranged in any other manner or number for the connection through the laterally extending portion of respective detachable key holder chains 28 each of which chains will have a depending snap hook 29 to which a key is attached.

The stem portion 26 is hollow and opens through the transversely extending multiple key chain holder portion 25 as best seen in FIG. 2, and has an inverted cup-

shaped fitting 31 tightly secured therein which is adapted to releasably receive in a detachable manner a spring biased sleeve assembly indicated generally at 32, operable in a manner to be later described in detail, that has an internal latch member 33 with a loop formation 34 depending from the assemblage through which an upper attaching hook 35 of a key chain 36 of similar construction to the key chains 28 on laterally extending portion 25 and on the lower end of which will be provided a hook similar to the hook 29 shown in FIG. 1 for the purpose of the attachment of a key, such as the ignition key of an automobile that is desired to be detached from the ring assemblage in order to make use of the same in the ignition switch of a dashboard of an automobile or such other key, but for best use of the same, it is desired to be made free at times of the ring holder. This renders the key holder versatile, time saving, by permitting the quick release of this ignition or any other key and the quick finding of the right key for the ignition from the feel of the assemblage of keys. The depending key chains 28 are easily bendable and are pliable when grasped by the fingers while the ring band portion 24 is over one of the fingers so that upon the desired key being selected it can readily be worked by the fingers into the key hole of the lock and the key turned therein. Thus normally the key does not have to be removed from the assemblage. It is only when more often a key should be removed that it is attached to the central key chain 36. The hooks 29 as well as the chain 28 may be of different colors for easy identification of the key attached thereto. It can be readily seen that there has been provided a finger ring holder to which nine keys with its chains 28 can be attached, four on each side of the stem portion 26 and a releasable one in the middle.

The ring portion 24 should be of a size that can fit any one of the fingers of the hand or the fingers of any person with large or small fingers and in order to have the ring portion 24 more adaptable it is constructed in connection with the crown assemblage 22 such that it can be expanded or contracted as desired. This ring portion 24 is connected integrally with the crown assembly 22 at one side thereof as at 37 and its opposite end as indicated at 38 overlies the crown assemblage and is slide fitted into an arcuate slot opening 38, FIGS. 2 and 4 and from its open end at the opposite side of the crown assembly as at 39. The free end of the ring band portion 24, as shown in FIG. 4 is provided on one side with a series of notches 41 into which a catch 42 is extended to hold the ring band 24 from extension and contraction and locked within the crown assembly. In order to release the catch 42 a press button 43 is depressed by a finger 49 in the manner illustrated in FIG. 4 so that the catch 42 is pivoted about opposing fulcrum points 45 and 46 provided by narrowing together sides of opening 47 containing the catch 42. The catch is generally of S-shape with a projecting point 42' that extends into the slot 38 for engagement in any one of the series of notches 41 in the key band portion 24. The catch 42 is meant to provide a flat end portion 42'' for flush engagement with the inner face of the press button 43 that is held in the catch opening 47 by its shoulder flange 43' and against outward displacement therefrom. A leaf spring 48 is provided in the recess 47 to underlie the catch 42 which will serve to return catch 42 after the push button 43 is depressed to urge the rounded lower end 42' of the catch toward the side face of the ring band end. This spring 48 will keep button 43 extended out of its opening and its shoulder flange 43' against shoulder 49 in its opening.

The releasable detachable assembly 32 is of a type that can readily release and includes an enlargement 33' on the end of the central member 33 and a free slide 51 having a depression 51' with which the enlarged head 33' can be registered for the two parts to enter hole 52 in the bottom wall of the inverted cup shaped member 31 for the ready insertion thereinto and upon the parts being released, spring 53 working through a plate 54 will upon working between and within cooperating outer and inner sleeve parts also of cup shape, 55 and 56, cause the slide part 51 and the enlarged head 33' to overslide one another so that the enlarged head 31' will leave the depression 51' of the part 51 and combine in such a manner as to provide a composite enlargement inwardly of the opening 52 of the part 31 and retain the assemblage 32 within the cup shaped part 31. To release the part, sleeve parts 55 and 56 and the spring 53 is worked in such a manner that the enlarged head 33' will again enter depression 51' of part 51 so that the assemblage 32 with the chain 36 covering the ignition key, not shown, on its lower end, or some other key of which it is desired to have it releasable from the key ring, allow the other keys to be taken with the finger ring key holder to another location. The ignition or other key can again be assembled by the quick release assembly 32 being inserted into the ring stem 26.

The chains are preferably in the form of a flexible bendable link, not of chain links, but durable yet soft to handle, easy on the pockets and fit well in the hand and between fingers and can even be stretched within limits to render the key more readily accessible into the key opening of the lock. The upper end of the key chain 28 is in the form of a hook as best seen in FIGS. 9 and 10 which can be fastened into a depending loop 27 on the laterally extending ring holder portion 25, with the body of the hook 28' being sprung slightly to fit over the loop section until finally located over and within the depending loop 27 and in a manner to firmly hold the chain 28 in place upon the loop 27 yet to provide for easy removal of the chain link 28 therefrom at times when it is desired to switch key chains upon the laterally extending holder portion 25.

As seen in FIG. 10 the lower end of the chain link 28 can have a hook 28'' into which the upper end of a key hook 29 can be similarly extended as illustrated in FIG. 10 to open the free end of the hook 28'' sufficiently to allow the key hook section to pass into the hook 28''.

As seen in FIG. 12, hook 29 may have an in group formation 29' that can be expanded to allow the hook 29 to be assembled upon a closed end ring of the chain link of the type shown in FIG. 1 at 28*a*. The lower end of the hook 29 can be readily sprung over an enlarged end head 29'' when keys 57, one or two in number are forced into the hook 29.

In FIG. 11, a slightly different form of hook 29*a* is provided where the free end of the hook is turned inwardly as shown at 29*a* over which the key 57 is inserted and slid to locate the key 57 within the main portion of the hook 29*a*. The hook 29*a* has a looped end 29*a*'' by which the hook 29*a* is connected to the closed chain link end member 28*a*. It should thus be apparent that with hooked end of the chain links with looped

ends of the hooks that the chain links with keys can be readily assembled together with the chain hooks and the upper ends of the chain links readily assembled with the depending loops **27** of the laterally extending key holder portion **25.**

In order that the user of this key ring holder can have light in the nighttime to find a key opening, there has been provided a flashlight assembly **23** within the crown portion **22.** The crown portion **22** as best seen in FIGS. **2** and **5** has a recess **58** open at its upper end and a threaded formation **59** for receiving a decorative retaining ring **61** for holding within the recess **58** a lens **62,** a transparent picture **63,** a flat lamp bulb **64** with a filament **65** therein, a contact plate **66,** a flat battery **67** with contact terminals on the upper and lower faces thereof, a metal plate **68** with an elongated top switch contact **69** thereon engaging with the lower terminal of battery **67** and an insulating plate **71** in the bottom of the recess **58** with an open insulating ring **78** overlying the same and about the battery **67.** With all these parts in the recess **58** and retained by the clamping ring **61** in a tight manner, the lamp bulb filament **65** may be energized to direct light rays through the picture **63** and the lens **62,** which light will be helpful when locating a key **57** in a key opening when other light is not available.

A side operating member or button **72** is provided in an opening **73** at one side of the crown portion **22** and it has an extension **74** engageable when forced upwardly with the rounded end portion **75** of battery contact **69** and holds the battery circuit with the light bulb and the button extension **74** being of metal will serve to ground the electric circuit with the body of the crown portion **22.**

The lamp bulb **64** has two oppositely disposed terminals **64'** and **64''.** The terminal **64'** is positive and has tight fitting engagement with the peripheral wall **66'** of the positive plate **66,** the wall extending only partially throughout the extent of the periphery of the positive plate **66.** This positive plate **66** rests on positive upper terminal **67'** of the battery **66.** Lower terminal **67''** of battery **67** rests upon the negative terminal plate **68** and the spring contact **69** that overlies the same to provide contact end **75** for engagement by the extended end **74** of the grounding switch **72.** This grounding plate **68** is insulated on the bottom insulated plate **71** in the recess **58** in the ring crown portion and is held against contact with the metal wall of the recess **58** by the insulating ring **78.** The terminal **64''** of the lamp bulb **64** is grounded by contact with the metal wall surface of the recess **58** of the crown portion. As seen in FIG. **6** the adjusting of the grounding switch **72** closes the electric circuit to the lamp bulb **64** and the battery **67.** The switch **72** established ground into the body of the crown portion and closes the circuit through the terminal **64''** of the lamp bulb **64** which is grounded with the side wall of the recess. Accordingly, there has been provided in this crown portion of the ring key holder a flashlight that can be turned on to assist in the locating of the key in the key opening at times when the opening cannot be readily seen. Thus the ring key holder not only provides for a simple assemblage of keys but also for the purposes of providing light for the use of the keys. The glow of the filament **65** of the lamp bulb **64** will pass through the picture **63** and the lens **62** and through the lens **62** to be concentrated upon the key hole. The light will be sufficient for this purpose. The keys by being on a finger ring and the ring being such as to readily adjust upon the finger to make available the light will keep in the hands of the user both the key and the light when reaching for carrying articles and should thereby eliminate the problem of easily dropping keys when hurrying with packages and the problem of losing keys when they enter inaccessible openings and are lost.

Turning now particularly to the form of the invention shown in FIGS. **7** and **8,** there is shown a combination light and key holder which can be carried in the hand with safety and in such a manner as to prevent the keys from being dropped even though a ring portion is dispensed with. This combination, by the provision of two enlarged portions and a central stem can be readily held between fingers closed upon one another and thereby minimize the occasion for dropping the same.

This form of the invention provides a light head portion **81** formed of similar parts to that provided of the ring crown portion **22** but instead of having an annular ring portion **24** connected thereto there is depended from the bottom of the flashlight portion **81,** a central stem **82** that is integrally formed with the underside and has at its lower end a circular key holder plate portion **83.** The length of the stem portion **82** and the distance between the light portion **81** and the key plate **83** is about the distance of the diameter of fingers so that upon the holder being disposed between the fingers, the key plate portion **83** may overlie the palm of the hand while the light portion will overlie the outer sides of the fingers so that a light can be directed through lens **84** on the front face thereof upon the key opening with little adjustment of the combination holder in the fingers. The stem **83** may be shorter to make it more compact for pocket, hand, or purse. The light portion **81** has a grounding switch member **85** that is accessible from one side of the light portion **81** and can be slid in its slot **86** to effect a grounding of a combined lamp and battery circuit in a manner illustrated in the wiring diagram of FIG. **6,** the same as in the grounding switch operating member **72** has been slid to the grounding position.

The key holder plate has a plurality of downwardly struck loops **87** surrounding the plate portion and circumferentially equally spaced from one another, there being some eight loops so that eight key chains or eight keys can be attached to the plate portion **83.** The keys will be provided upon flexible chain links **28** that can be attached to the loops by their upper ends **28'** in the form of expandable hooks that can be fitted into the loops in a manner illustrated in FIG. **9** with these links **28** depending therefrom the keys hold on the lower ends of the same in the manner shown in FIG. **1, 11** and **12** and can be made readily accessible. A large loop **88** extends laterally outwardly from the peripheral edge of the plate portion **83** to provide an opening by which this combined light and key holder may be hung over a hook on a wall at times when the person has no need for the keys. It should thus be seen that control of the keys can be kept with this arrangement as with the ring arrangement when moving with the keys and with packages or articles in hand so that they are not readily dropped or lost.

Referring now particularly to FIGS. **13** and **14,** there is shown a combination bracelet and key holder assemblage constructed generally to this form of the inven-

tion shown in FIGS. 1 and 2 but having a bracelet as the ring for the placing of the keys on or about the hand and over the arm for safe retention. A bracelet band 91 adapted to fit over the hand and upon the arm carries a key holder plate 92 that is held in place upon a depending hollow stem 93 integrally formed upon the outer wall of the bracelet and by a releasable assembly 94 similar to the assembly 32 of the ring shown in FIG. 2. This quick detachable assembly 94 holds in place upon the stem 93 a curved key holder plate conforming generally in curvature to the bracelet band 91 as indicated at 95. This key holder has a hub portion 96 that is slide fitted over the exterior surface of the stem portion 93 and by engagement with the ends of the hub by a flange 97 on one of the assembly members and with the enlarged portion 98 extended through opening 99 in the inner end of closed cup shape member 101 not only will the key carried upon the flexible chain link 102 connected by its upper end member 103 with eye portion 104 of the quick release assembly 94 will hold the curved key supporting plate 95 upon the stem portion 93. Thus the entire assemblage can be adapted for carrying a plurality of keys as upon the curved key holding plate 95 or can carry but one key as upon the quick release assembly 94 or as desired both the keys of the key holding portion 95 and of the quick release 94 can be held in one complete assemblage as best shown in FIG. 13. The key holder plate can also swivel upon the bracelet so as to render the keys 57 more accessible while even keeping the bracelet upon the hand. For use, the bracelet may be slid upwardly over the back of the hand and the keys 57 can be grasped with the fingers without releasing the bracelet from the arm. On the top of the bracelet is a flashlight opening 107 through which light rays can be projected as illustrated in FIG. 13 by pressing a button 108 on the top thereof with a finger. Within this portion of the band and permitted by an enlargement thereof is a combined lamp bulb and battery circuit arrangement whose circuit can be closed by depressing the button 108. The key link holder plate 95 while being curved does have loops 95' on which flexible key chain links 109 in the manner already described with the connection of the key links 28 with the loops 27 of the plate 25 in the finger ring combination 21. Thus it can be seen that all forms of the invention have the one purpose in mind of providing some means of holding the key, either on the finger, between the fingers, on the hand and arm so that one carrying bundles cannot readily lose control of the keys and at the same time provide an arrangement whereby the keys can be used while the ring, bracelet, or combined arrangement is still firmly attached to the hand and without the need of removing the same from the fingers or hand to make use of the key. The keys are readily accessible to the fingers while the combination device is still on the fingers or hand. Also at the same time, it should be apparent that a light has been provided that will be helpful in dark places.

While various changes may be made in the detailed construction, it shall be understood that such changes will be within the spirit and scope of the present invention as defined by the appended claims.

I claim:

1. A key holding device comprising a hand holding portion adapted to be extended over the surface of a finger or hand in a safe manner thereover, a stem portion depending from the hand attaching portion, a laterally extending key chain holder portion on the stem portion, a plurality of key chains connected respectively throughout the underside of the laterally extending key chain holding portion and means on the lower end of the key chains for the attachment of keys thereto, said hand attaching portion comprising a finger ring having a crown portion and an annular finger looped portion, said stem portion depending from the finger ring looped portion on the opposite side thereof from said crown portion, and said crown portion containing a flashlight assembly with switch means on the exterior thereof.

2. A key holding device as defined in claim 1 and said laterally extending chain link portion having a series of depending loops and said chain links having hook means for releasable attachment to the depending loops of the laterally extending key chain holding portion.

3. A key holding device as defined in claim 1, and said stem portion being recessed and opening through the lower face of the laterally extending key chain supporting portion, a quick release device detachably connected to the stem portion within the opening thereof and an individual chain key carried on the quick release device whereby one of the keys of the assemblage can be quickly releasable from the device and readily quickly attachable thereto.

4. A key chain holder device as defined in claim 1, and said ring having a crown portion and said annular finger encircling portion being adjustable connected at one end to the crown portion, and depressible catch means on the crown portion engageable with the free end of the finger encircling portion to hold the same in its adjusted position, in the crown portion whereby the finger encircling portion can be adapted to different size fingers.

* * * * *