J. C. BACKUS.

LOCK FOR UMBRELLA HOLDERS.

APPLICATION FILED JAN. 24, 1906. RENEWED APR. 24, 1908.

913,188. Patented Feb. 23, 1909.

2 SHEETS—SHEET 1.

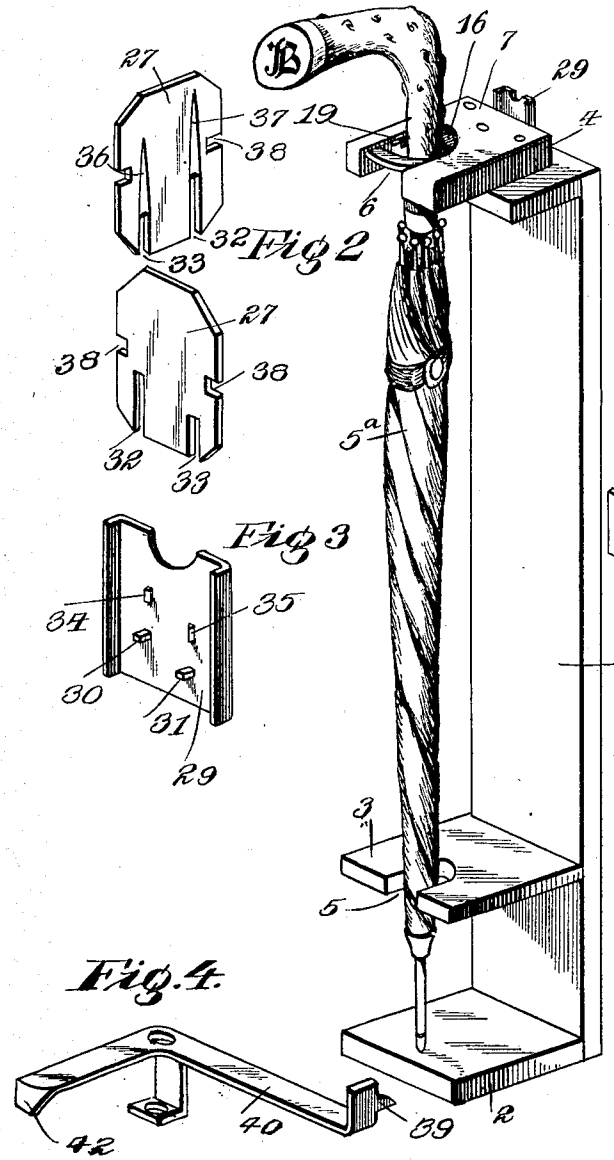


Fig. 1.

Fig 2

Fig 3

Fig. 5.

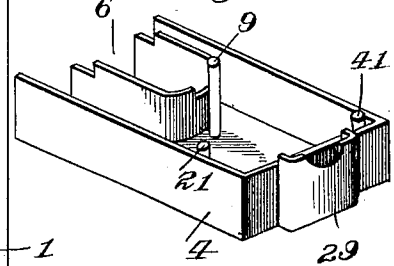


Fig. 6.

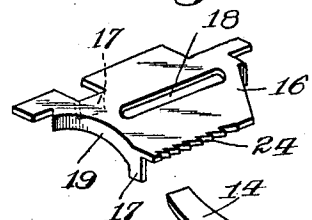


Fig. 4.

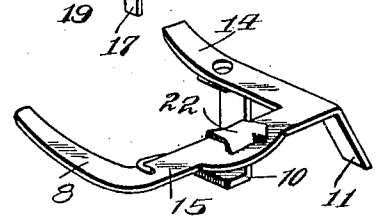
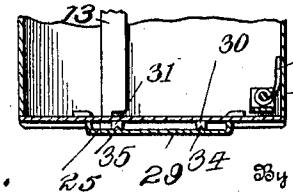


Fig. 8.

Fig. 7.



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Witnesses

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2 SHEETS—SHEET 2.

Fig 9

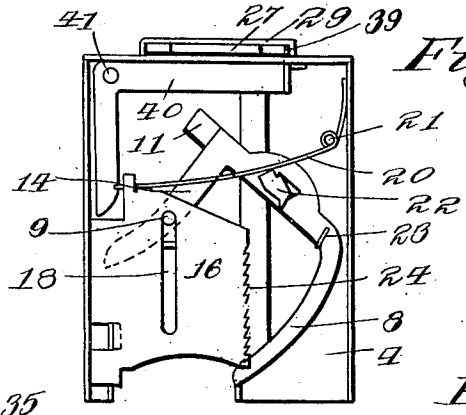


Fig. 10.

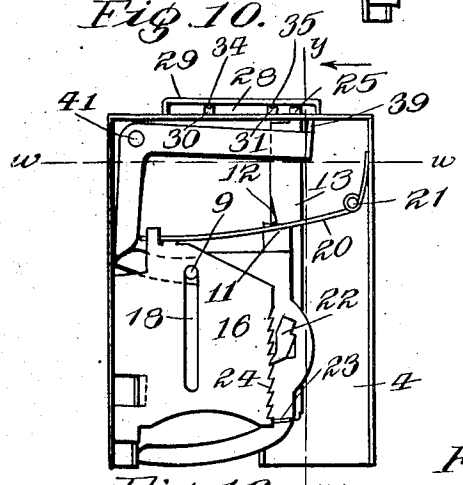


Fig. 11.

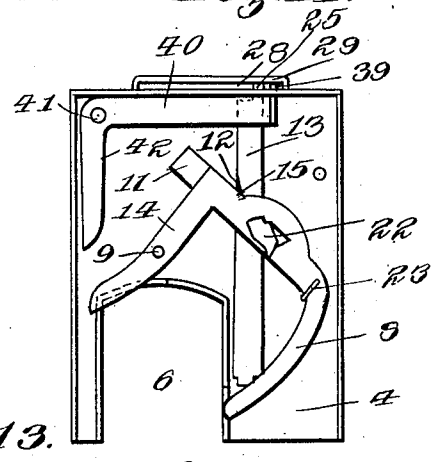


Fig. 12.

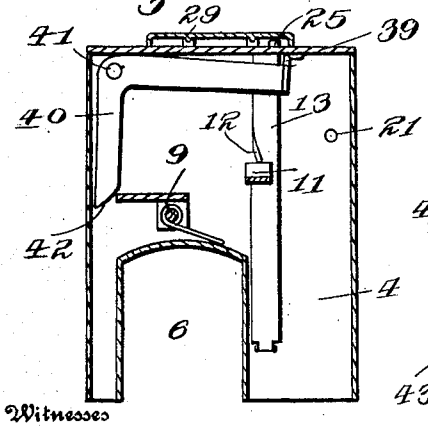


Fig. 13.

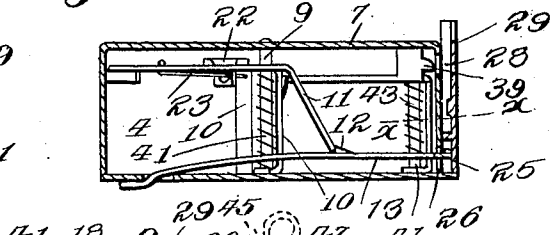
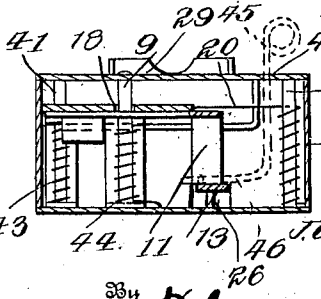


Fig. 14.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN C. BACKUS, OF SMETHPORT, PENNSYLVANIA, ASSIGNOR TO BACKUS NOVELTY CO., OF SMETHPORT, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

LOCK FOR UMBRELLA-HOLDERS.

No. 913,188. Specification of Letters Patent. Patented Feb. 23, 1909.

Application filed January 24, 1906, Serial No. 297,705. Renewed April 24, 1908. Serial No. 429,055.

To all whom it may concern:

Be it known that I, JOHN C. BACKUS, citizen of the United States, residing at Smethport, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Locks for Umbrella-Holders, of which the following is a specification.

This invention is primarily designed to provide a holder or support for umbrellas and parasols which will prevent their appropriation by strangers and unauthorized parties, the holder being of peculiar formation and embodying a lock mechanism of novel structure for securance of the umbrella when placed in position.

The holder is adapted for walking sticks and kindred articles having a slender portion, or adapted to be gathered in, so as to be embraced at some one point by the slotted receiver and the lock bolt.

The invention contemplates a follower for coöperating with the lock bolt to prevent any undue play of the umbrella, walking stick or like article after the same has been placed in position, which would be likely to admit of removal of the article from the holder by working the same back and forth and up and down, said follower being automatically pressed forward by a spring and held projected by a dog or like securing means.

The invention also contemplates a lock mechanism of unique structure and arrangement for the lock bolt and an independent lock mechanism for the check, the parts having a mutual interdependence and adapted to be controlled by the umbrella or like article and the check or key through the follower and adjunctive parts.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of an umbrella holder embodying the invention, the same showing an umbrella in position and locked. Figs. 2 are perspective views of the obverse and reverse sides of the check or key. Fig. 3 is a perspective view of the guide for said check or key. Fig. 4 is a detail perspective view of the check lock. Fig. 5 is a detail perspective view of the slotted receiver or casing containing the operating parts, the cover and working elements being omitted. Fig. 6 is a detail perspective view of the follower. Fig. 7 is a detail perspective view of the lock bolt. Fig. 8 is a horizontal section of the rear portion of the holder on the line x—x of Fig. 13. Fig. 9 is a top plan view of the holder with the cover removed and showing the position of the parts when the follower is projected and the lock bolt moved aside. Fig. 10 is a view of the parts shown in Fig. 9, illustrating their relative arrangement when the lock bolt is projected across the receiving slot of the holder or casing. Fig. 11 is a view similar to Fig. 9, the follower and its actuating spring being removed. Fig. 12 is a view similar to Fig. 9 with the follower and its actuating spring omitted and the lock bolt being in horizontal section. Fig. 13 is a longitudinal section on the line y—y of Fig. 10, looking in the directions of the arrows. Fig. 14 is a transverse section on the line w—w of Fig. 10.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The device comprises a suitable support 1 having a rest 2, a guide 3 and a combined holder and lock mechanism 4. The parts 2, 3 and 4 project outward from the support 1 so as to receive the umbrella 5^a or like article to be retained in place. The rest 2 sustains the article 5^a from downward displacement when the device, as a whole, has an approximately vertical or upright position. The guide 3 is formed in an edge with a slot 5 into which the umbrella or like is fitted so as to prevent lateral displacement thereof. The holder proper has a slot 6 extending inward from an edge portion thereof and like the slot 5 in the guide 3 adapted to receive the umbrella or kindred article when placed in position.

The body of the holder is hollow, as shown most clearly in Fig. 5, to receive the working parts comprising the lock mechanism, said hollow body or casing being closed by means of a cover 7 which may be held in place by

any securing means. A lock bolt 8 is adapted to extend across the open end of the slot 6 and close the same and retain the umbrella 5[a] or like part in place. This lock bolt may be of any construction and arrangement so long as it serves to effect the result stated. In the present instance, the lock bolt is of hook form and is pivotally mounted upon a post 9 and is provided with pendent portions 10 and 11, the part 10 having off-standing portions which are apertured to receive the post 9. The pendent portion 11 is adapted to be engaged by a stop 12 carried by a spring 13, whereby the lock bolt is held projected across the open end of the slot 6. The lock bolt comprises members 14 and 15 which have an approximate right-angular arrangement, the pendent portion 10 extending from the member 14 and either forming a part thereof or attached thereto, as may be found most advantageous.

A follower 16 coöperates with the lock bolt and is slidably mounted within the casing or hollow body 4 and is directed in its movements by means of lugs 17 and the post 9, the latter passing through the longitudinal slot of the follower. The outer end of the follower is made concave as shown at 19 to more nearly conform to the rounded outline of the handle of the umbrella or like article so as to embrace the same more closely, thereby adding to the difficulty of removing said umbrella or the like when placed in position. The edge of the lock bolt coöperating with the concave edge of the follower is similarly curved in an opposite direction, thereby obviating the formation of a space at opposite sides of the handle or part of the article 5[a] when the same is held by the holder. The follower is normally pressed outward by means of a spring 20 which is mounted upon a post 21. A lock device coöperates with the follower to hold the same projected and prevent inward movement by pressure upon the umbrella or like article after the same has been placed in position and gripped between the follower and lock bolt. This lock device is mounted upon the lock bolt and is movable therewith so as to be carried into and out of the path of the follower. In the embodiment illustrated, the lock device 22 consists of a dog mounted upon the member 15 of the lock bolt and normally acted upon by means of a spring 23 so as to hold the engaging end of the dog in position for positive contact with the teeth 24 provided upon the follower and admit of the ratchet action of said dog when the follower is moved forward under the action of the spring 20. The lug 17 of the follower, in addition to directing said follower in its reciprocating movements also performs the office of a trip and is adapted to engage with an end portion of the member 14 when the follower is pressed inward to cause the lock bolt to be projected across the open end of the slot 6 and to be engaged by the stop 12 so as to hold said lock bolt in the projected position. As shown most clearly in Fig. 11, an end portion of the member 14 projects across the inner portion of the receiving slot 6 so as to be engaged by the lug 17 when the follower nearly reaches the limit of its inward movement. The upper edge portion of the wall bordering upon the slot 6 is cut away at one corner, as shown most clearly in Figs. 5 and 11, to provide ample clearance for the end portion of the member 14 so the same may project into the slot 6 and across the path of the lug 17 for the purposes stated.

The lock device for the lock bolt consists of a spring arm 13 having a stop 12 which is adapted to engage with the part 11 of the lock bolt and hold the latter when projected across the open end of the slot 6. The spring arm 13 may be attached at one end to the casing 4 in any manner and is free at its opposite end which is provided with a projecting portion 25 to extend through an opening 26 in the inner or rear wall of said casing so as to be engaged by the check or key 27 provided for releasing the lock bolt when it is required to remove the article 5[a] from the holder. A space 28 is provided at the rear of the casing and constitutes a guide for reception of the check or key 27, said space being formed between the rear wall of the casing and a plate 29 secured thereto in any manner, said plate having its vertical edge portions inwardly bent to provide flanges corresponding in depth to the thickness of the check 27, whereby said check is prevented from having any lateral movement when inserted in the guide or space 28. The plate 29 projects above the casing or body of the holder a distance to facilitate the entrance of the check into the guide or space 28 as also to provide a support for the check when in position. The upper edge of the plate 29 is notched to admit of the upper portion of the check being conveniently grasped. Lugs 30 and 31 extend into the space or check guide 28 and are located in different planes and constitute wards, thereby preventing the lock mechanism being released by other than the prescribed check. Slots 32 and 33 are formed in the check and correspond in length or depth to the relative positions of the lugs 30 and 31. The lugs 30 and 31 may be provided upon either wall bordering upon the space or check guide 28, and for convenience they are preferably applied to the plate 29. Projections 34 and 35 extend into the space or check guide 28 to a less distance than the lugs 30 and 31 and coöperate with grooves 36 and 37 formed in the side of the check 27. The projections 34 and 35 are preferably provided upon the plate 29 and are differently positioned and require that the grooves 36 and 37 shall be of different lengths to admit

of the check readily entering the check guide when it is required to release the lock bolt by means of a predetermined check.

By varying the relative positions of the parts 30, 31, 32, 33, 35, 36 and 37, combinations may be formed so that each holder may be operated only by a check specially constructed therefor, thereby preventing the opening of one holder by means of a check of another. By providing the projecting parts 30, 31, 34 and 35, upon one or the other of the walls forming the space or check guide 28, the check 27 is free from extensions, thereby admitting of the check being carried in the pocket without engaging with the clothing and fraying or injuring the same. The check is provided with a notch 38 to receive the stop 39 of the check lock 40 which is preferably of elbow form and is mounted upon a post 41, an end of a member of the check lock being beveled, as shown at 42, to be engaged by the member 14 of the lock bolt so as to withdraw the stop 39 from engagement with the check and release the latter when the follower has been pressed inward to cause the lock bolt to be projected across the lower end of the slot 6. A spring 43 mounted upon the post 41, normally exerts a pressure upon the check lock to hold the stop 39 projected across the space or check guide 28 and in engagement with the check so as to hold the latter in position when the lock bolt is retracted or withdrawn from across the slot 6. A notch 38 is formed in each vertical edge of the check to give the latter a uniform appearance.

It is to be understood that one check will not open any other holder except the one for which it is specially designed and in order to identify the checks and holders, the same in practice will be provided with designating symbols or marks of any character. When the check is in position in the space or check guide 28 and the lock bolt is retracted, said check is held in place by the check lock, that is, by means of the stop 39 entering the notch 38. The normal position of the parts is indicated in Fig. 9, that is, with the follower 16 projected and the lock bolt retracted. Upon placing an umbrella or like article in position in the holder, the handle thereof is inserted in the slot 6 and pressed inward, thereby repressing the follower and causing the same to move rearward, and just prior to reaching the limit of its inward movement the lug 17 of the follower comes in contact with the end portion of the member 14 and upon a continued rearward movement of the follower, the lock bolt is projected across the open end of the slot 6 and closes the same and the member 11 of the lock bolt rides upon the stop 12 and presses the free end of the spring arm 13 downward and at the same time the member 14 comes in contact with the beveled end 42 of the check lock and moves the latter against the tension of the spring 43 and withdraws the stop 39 from engagement with the check and at this instant the member 11 clears the stop 12 and the free end of the arm 13 springs upward and throws the check upwardly a distance to cause the notch 38 to clear the stop 39, thereby preventing any possible locking of the check within the check guide while the lock bolt is projected and locked. The article 5^a is now released from inward pressure to which it has been subjected, and the follower 16 being thus released moves outward under the action of the spring 20, thereby forcing the article against the lock bolt, and as the follower moves outward, the lock device or dog 22 rides upon the teeth 24 by a ratchet action, thereby holding said follower against being pressed rearward in an attempt to release the article 5^a by increasing the space between the follower and lock bolt to permit of the removal of said article without opening the holder by application of the check in the prescribed manner. The party placing the umbrella or article in the holder becomes possessed of the check by withdrawing the same from the check guide. When it is required to gain possession of the article, the check is inserted into the space or check guide 28 and is pressed therein so as to effect disengagement of the slot 12 from the projecting portion 11 of the lock bolt, said check coming in engagement with the extension 25. The instant the lock bolt is released, it is retracted by means of a spring 44 mounted upon the post 9 and normally exerting a pressure to hold the lock bolt retracted. At this instant, the check lock 40 is released from the interference of the member 14 of the lock bolt and is moved by the spring 43 so as to project the stop 39 into the check guide to engage with the check and hold the same from casual displacement. The follower 16 being released is shot outward by the spring 20, thereby throwing the umbrella or like article out of the holder.

It is necessary to provide for operating the holders independently of the prescribed keys and for this purpose a master or pass key is provided, as shown in Fig. 14, the same consisting of a piece of wire 45 having an end portion bent about at a right angle, as indicated at 46, said key being adapted to be inserted through an opening 47 provided in the upper portion of the cover and which opening may be closed by means of a screw or other device to prevent tampering with the holder by mischievously inclined parties. The master key 45, when inserted into the holder, is adapted to have its bent end 46 engage with the spring arm 13, which latter may be moved by pressure upon the key so as to effect a release of the lock bolt from its locking means. Upon removal of the key 45, the holder assumes its normal position and

may be operated by the party holding the prescribed check or key 27.

Having thus described the invention, what is claimed as new is:

1. In a holder for umbrellas and the like, the combination of a receiver, a coöperating lock member for securing the article, a follower adapting the receiving space of the holder to the size of the article placed in position to prevent removal of the said article, and lock means to secure the follower in an adjusted position against possible displacement.

2. In a holder for umbrellas and the like, the combination of a receiver, a lock member for securing the article to the receiver, a follower mounted to move independently of the lock member and receiver and to act in conjunction therewith to prevent movement of the article when placed in position, and means for automatically locking the follower against rearward movement at any adjusted distance from the aforesaid lock member.

3. In a holder for umbrellas and the like, the combination of a receiver, a lock member for securing the article to the receiver, a follower mounted to move independently of the lock member and receiver to adapt the size of the receiving space of the holder to the size of the article placed in position to prevent removal of the said article, and locking means to secure the follower in the adjusted position and adapted to be released by the aforesaid locking member when the latter is thrown open to release the article.

4. In a holder for umbrellas and the like, the combination of a receiver, a lock member for securing the article to the receiver, a follower mounted to move independently of the lock member and receiver and to act in conjunction therewith to prevent movement of the article when placed in position, a trip actuated by inward movement of the follower only to positively operate the lock member, the follower being free to move outward after throwing the lock member, and automatic locking means for securing the follower in any outward adjusted position after the said lock member has been thrown to prevent its inward movement.

5. In a holder for umbrellas and the like, the combination of a receiver, a lock member for securing the article to the receiver, a follower mounted to move independently of the lock member and receiver and to act in conjunction therewith to prevent movement of the article when placed in position, a trip actuated by inward movement of the follower only to positively operate the lock member, said follower being free to move outward after throwing the lock member, and coöperating lock means between the follower and lock member to hold the follower projected in any outward adjusted position so long as the lock member is thrown and adapted to be released when the lock member is thrown open.

6. In a holder for umbrellas and the like, the combination of a receiver, a lock member for securing the article to the receiver, a follower mounted to move independently of the lock member and receiver and to act in conjunction therewith to prevent displacement of the article when placed in position, a trip carried by the follower to strike an extension of the lock member to operate the latter when pressing the follower inward, means for automatically throwing the follower outward when released from the inward pressing force, and locking means to hold the follower at any stage of its outward movement to prevent inward movement thereof so long as the lock member is projected.

7. A holder for umbrellas and kindred articles, the same comprising in combination a receiver, a lock bolt, a follower cooperating with the lock bolt for gripping and confining the article, and locking means carried by the lock bolt and adapted to engage the follower to secure it against rearward movement to prevent removal of the article after the follower has been projected forward.

8. A holder for umbrellas and the like comprising a slotted receiver, a lock bolt for closing the open end of the slot, a follower coöperating with the lock bolt for gripping and confining the article between said lock bolt and follower, and means for securing the follower in its projected position to prevent removal of the article held between the lock bolt and follower, said follower locking means being mounted upon the lock bolt and movable therewith into and out of coöperative relation with the follower.

9. In a holder for umbrellas and the like, the combination of a receiver, a lock bolt, a follower, coöperating means between the follower and lock bolt for projecting the latter across the article when placed in position to confine the same, means for securing the lock bolt when projected, and lock means between the follower and said lock bolt to hold the follower in a projected position when coöperating with the lock bolt to confine the article placed in the holder.

10. In a holder for umbrellas and the like, the combination of a receiver, a lock bolt, a follower coöperating with the lock bolt to effect projection thereof across the article for confining the same, securing means for the lock bolt, a check for effecting release of the lock bolt from its securing means, and a check lock normally securing the check against displacement and adapted to be actuated by the lock bolt when projected to effect release of the check to admit of removing the latter from the holder.

11. In a holder for umbrellas and the like, the combination of a receiver, a follower adapted to be repressed when placing the article in the holder, a lock bolt having a portion normally extended into the path of a part of said follower to be actuated thereby for projecting the lock bolt to confine the said article, securing means for the lock bolt, a check to effect release of the lock bolt, and a check lock normally in engagement with the check and having a portion extended into the path of a part of the lock bolt to be engaged thereby when the lock bolt is projected to effect a release of said check.

12. In a holder of the character described, the combination of a follower, means normally exerting a projecting force upon said follower, a lock bolt adapted to be projected into operative position upon repressing the follower, means for securing the follower in a projected position after the lock bolt has been thrown into operative position, said means being thrown into and out of operative position by the lock bolt and adapted to have a ratchet action to permit of forward movement of the follower and prevent rearward movement thereof after said lock bolt has been projected, and securing means for said lock bolt.

13. In a holder for umbrellas and like articles, the combination of a receiver, a follower, a lock bolt having a portion extended into the path of the follower to be actuated thereby for projecting the lock bolt when the follower is pressed inward, locking means for said lock bolt, and other locking means mounted upon the lock bolt and adapted to engage the follower to prevent rearward movement thereof after being thrown outward to confine the article placed in position.

14. In a holder for umbrellas and the like, the combination of a receiver, a lock member to secure an article to the receiver, a follower having movement independently of the lock member, means normally exerting a projecting force upon said follower, and ratchet locking mechanism for holding the follower in an adjusted projected position relative to the receiver when the lock member aforesaid is in locking or closed position.

15. In a holder for umbrellas and the like, the combination of a receiver, a lock member to secure an article to the receiver, a follower, means normally exerting a projecting force upon said follower, and means mounted for independent movement on the lock member for holding the follower in projected position relative to the receiver when the lock member aforesaid is in locked or closed position.

16. In a holder for umbrellas and the like, the combination of a receiver, a lock member to secure an article to the receiver, a follower having movement independently of the lock member and adapted to trip the lock member when reaching the limit of its inward movement, means for projecting the follower outwardly after operating the lock member and means for locking the follower after it has been projected.

17. In a holder for umbrellas and the like, the combination of a receiver, a lock member to secure an article to the receiver, a follower operable by the lock member and movable inwardly on the receiver, means for projecting the follower outwardly after its inward movement, and means carried by the lock member for locking the follower after it has been projected.

18. In a holder of the character described, the combination of a receiver and follower, a lock member coöperating with the follower and receiver to secure the article placed in position, coöperating lock means between the follower and lock member, a lock 13 for securing the said lock member when projected and having a projection 25, a check guide at one side of the said receiver and inclosing the projection 25 and having projecting portions extended from a wall into the space inclosed by said check guide and a check adapted to be inserted in the check guide to repress the aforementioned projection 25 and effect release of the lock member and follower, said check having slots in its end and grooves in a side, said slots and grooves varying in length.

19. In a holder of the character described, the combination of a slotted receiver, a pivoted hook shaped lock bolt having a portion normally extended across the receiving slot, a follower adapted to project the lock bolt, a lock device mounted upon the lock bolt and thrown into and out of operative position thereby and adapted to hold the follower projected when coöperating with the lock bolt, means for securing the lock bolt when projected, a check lock having a portion extended in the path of the lock bolt to be tripped thereby, and a check coöperating with the check lock and the lock bolt securing means.

20. A holder of the character described comprising a slotted receiver provided with a check guide having projections extended therein from a wall thereof, a follower, means normally tending to project the follower, a pivoted hook shaped lock for closing the open end of the receiving slot, a lock device carried by the lock bolt and movable therewith into and out of operative position for conjoint operation with the follower, a spring arm provided with a stop to engage with a portion of the lock bolt and hold the latter projected, said spring arm having an extension projected into the check guide, a check lock of approximately elbow form having one member extended into the path of the lock bolt

to be actuated thereby and having a portion extended into said check guide, and a check insertible in said check guide and having slots and grooves for coöperation with the projections thereof and coöperating with the check lock and said spring arm substantially in the manner and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN C. BACKUS. [L. S.]

Witnesses:
HALLIE A. WALKER,
V. B. BOUTON.