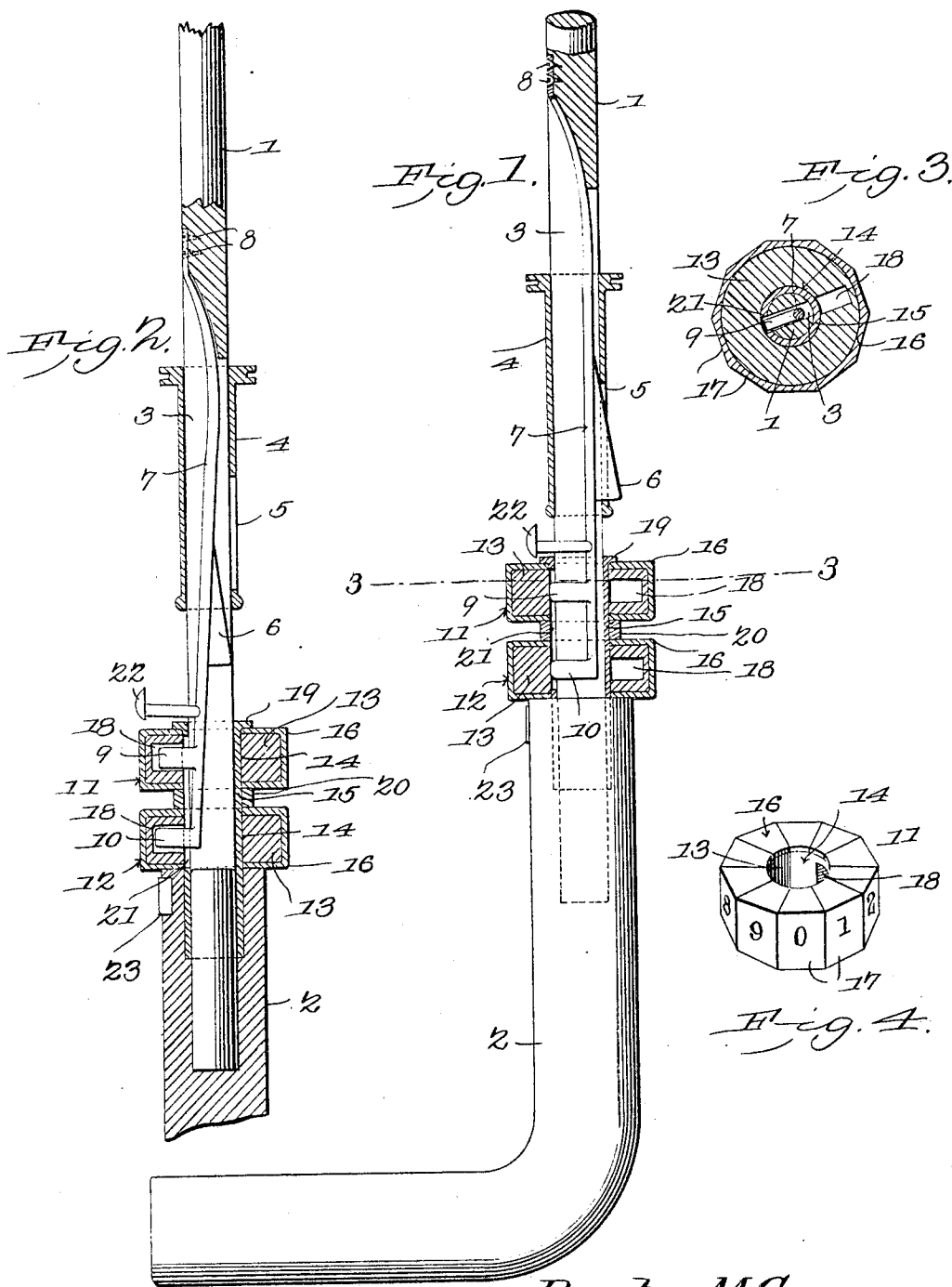


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PATENTED SEPT. 5, 1905.

B. M. GREENE.
UMBRELLA.

APPLICATION FILED OCT. 5, 1904.



Witnesses

E. J. Stewart
W. A. Shepard

Barton M. Greene,
Inventor.

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

BARTON M. GREENE, OF MYRTLEPOINT, OREGON.

UMBRELLA.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BARTON M. GREENE, a citizen of the United States, residing at Myrtle-point, in the county of Coos and State of Oregon, have invented a new and useful Umbrella, of which the following is a specification.

This invention relates to umbrellas, and has for its object to provide for locking the umbrella in its closed condition, so as to prevent unauthorized opening thereof.

A further object of the invention is to equip the umbrella with a combination-lock for the purpose of locking the runner, the lock being arranged in position for convenient manipulation to release the runner when it is desired to open the umbrella. In this connection it is proposed to provide for changing the combination of the lock without entirely removing the same from the umbrella-stick.

Another object of the invention is to effect the application of the present device without materially altering the umbrella beyond slotting the umbrella-stick, so as to accommodate the latch of the lock.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a sectional elevation of a portion of an umbrella-stick having the locking means of the present invention applied thereto in locked condition. Fig. 2 is a similar view showing the device unlocked to permit opening of the umbrella. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of one of the locking-tumblers.

Like characters of reference indicate corresponding parts in each of the several figures of the drawings.

To illustrate the application and operation of the present invention, a portion of an umbrella-stick 1 has been shown in the accompanying drawings, with any appropriate handle 2 fitted to the lower end thereof. In the lower portion of the stick there is provided a longitudinal slot 3, which extends to the inner end of the handle and intersects diametrically the sides of the stick. Upon the stick

is the usual runner 4, which is provided with a longitudinal slot 5, alined with one edge of the slot 3 and designed to receive the beveled latch-head 6 upon the spring latch-arm 7, mounted in the slot 3 and fixed at its upper end to the stick by suitable fastenings 8. When the latch-head 6 is snapped into the slot 5 of the runner, the latter is locked at its lower limit in the usual manner to retain the umbrella in closed condition.

The present invention contemplates locking the latch-arm 7 in the position shown in Fig. 1, so as to render the runner immovable, and this is carried out in the following manner: The lower free end of the latch-arm is provided with a pair or more of lateral projections 9 and 10 of a length to project through that edge of the slot 3 which is opposite the latch-head 6 when the latter is in its locked position, so as to engage the inner peripheries of the tumblers 11 and 12, which are mounted to rotate upon the umbrella-stick. Each tumbler consists of a disk or ring 13, having a central circular opening 14 to rotatably embrace the ferrule 15, rigidly fitted upon the umbrella-stick, and an outer shell or casing 16, embracing the disk and provided with a succession of external peripheral flat faces 17, having characters thereon—as, for instance, numerals from “0” to “9.” The disk 13 is provided with a radial slot or opening 18 intersecting its inner periphery to receive one of the projections upon the latch-arm in the unlocked condition of the umbrella. The purpose of the metallic ferrule 15 is to provide a bearing upon which the tumblers may readily rotate, and the latter are held against endwise play upon the umbrella-stick by being held between the shoulder formed by the handle and the external annular flange 19 upon the upper end of the ferrule, there being a spacing washer or ring 20 embracing the ferrule and located between the two tumblers. This ferrule is provided with a slot 21 registering with the slot 3 of the umbrella-stick. A suitable finger-piece 22 is carried by the latch-arm 7 and is projected through the slot 3 of the umbrella-stick at the upper side of the upper tumbler. On the handle of the umbrella is a suitable index or pointer 23 for co-operation with the tumblers.

In the closed condition of the umbrella the runner 4 is at its lower limit, with the latch-head 6 projected through the slot of the runner, so as to hold the latter at its lower limit, the latch-arm 7 being held in its locked position.

tion by reason of the projections 9 and 10 bearing against the inner peripheries of the respective tumblers, whereby the umbrella is locked in its closed condition. To release the runner, and thereby permit opening of the umbrella, the tumblers are rotated until the sockets or openings 18 come into alinement with the respective projections 9 and 10, whereupon the spring-arm 7 will be released and snapped from its locked position, as in Fig. 1, to its unlocked position, as in Fig. 2, thereby withdrawing the latch-head from the slot in the runner 5, so as to release the latter. To lock the umbrella, the runner is moved downwardly to its lower limit, and the finger-piece 22 is pressed so as to move the latch-head 6 into the slot 5 of the runner and to move the projections 9 and 10 into the slot 3 and out of the sockets or recesses 18, whereupon the tumblers are rotated, so as to move the sockets 18 out of alinement with the projections 9 and 10, and when the finger-piece 22 is released the projections 9 and 10 will bear against the inner peripheries of the tumblers, and thereby maintain the latch-arm 7 in its locked position.

It will here be explained that certain of the numerals or other characters appearing upon the peripheries of the tumblers are originally set or alined with the pointer or index 23, so as to bring the sockets 18 in alinement with the projections 9 and 10 for the reception thereof, whereby the umbrella may be released by bringing such characters into alinement with the pointer or index 23. The combination may be changed at will merely by rotating the shells or casings 16 of the tumblers upon the central disks thereof, so as to shift the characters upon the peripheries of the tumblers with respect to the sockets 18.

From the foregoing description it will be understood that little or no alteration is required in the umbrella beyond increasing the size of the slot 3 for the reception of the latch-arm 7 and in the provision of the ferrule 15, upon which the tumblers are mounted to rotate. When the lock of the present invention is applied to the umbrella-stick, it does not interfere in any manner whatsoever with the usual manipulation of the umbrella, while at the same time permits of the convenient and effective locking of the runner, so as to prevent unauthorized opening of the umbrella, thereby rendering the latter useless to a person who is unacquainted with the combination of the lock.

Having thus described the invention, what I claim is—

1. The combination with an umbrella-stick, of a runner mounted thereon, a spring latch-arm carried by the stick to lock the runner at its lower limit, and a locking-tumbler rotatable concentrically upon the stick to lock the spring-latch in engagement with the runner.

2. In an umbrella, the combination with an umbrella-stick having a longitudinal slot, of a slotted runner embracing the slotted portion of the stick, a spring latch-arm mounted within the slot of the stick and provided with a latch-head to snap into the slot of the runner and lock the latter, a tumbler mounted to rotate upon the stick, and a projection carried by the latch-arm for engagement by the tumbler to maintain the latch-arm at one limit with its head in the slot of the runner.

3. The combination with a slotted umbrella-stick, of a slotted runner mounted to slide thereon, a spring latch-arm mounted within the slot of the stick and provided with a latch-head to engage the slot of the runner and lock the latter, said latch-arm also being provided with a lateral projection and a laterally-projected finger-piece projected externally of the stick, and a tumbler mounted to rotate upon the stick with the projection of the latch-arm in engagement with the inner periphery of the tumbler to hold the latch-arm engaged with the runner, the tumbler being provided in its inner periphery with a socket to receive the projection of the latch-arm and permit retraction of the latter to release the same from the runner.

4. The combination with a slotted umbrella-stick having a handle thereon, of a ferrule embracing the slotted portion of the stick and projected above the handle, said ferrule having a longitudinal slot registering with the slot of the stick, a slotted runner upon the stick, a spring latch-arm mounted in the slot of the stick and provided with a latch-head to engage the slot of the runner and also provided with a lateral projection working through the slotted portion of the ferrule and a finger-piece projected externally of the stick, and a tumbler mounted to rotate upon the ferrule and having an internal socket to receive the projection and permit of retraction of the latch, the upper end of the ferrule having an external annular flange, and the tumbler being retained between the flange and the shoulder afforded by the handle.

5. The combination with an umbrella-stick having a handle, of a runner mounted upon the stick, a spring latch-arm carried by the stick for engagement with the runner, a tumbler rotatable concentrically upon the stick to lock the latch-arm, and a pointer carried by the handle adjacent the tumbler, said tumbler capable of being set with respect to the pointer to release the latch-arm.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

BARTON M. GREENE.

Witnesses:

J. R. BENSON,
G. F. HUGHES: