

No. 892,813.

PATENTED JULY 7, 1908.

J. F. DOLLES.
FOLDING UMBRELLA.
APPLICATION FILED AUG. 28, 1907.

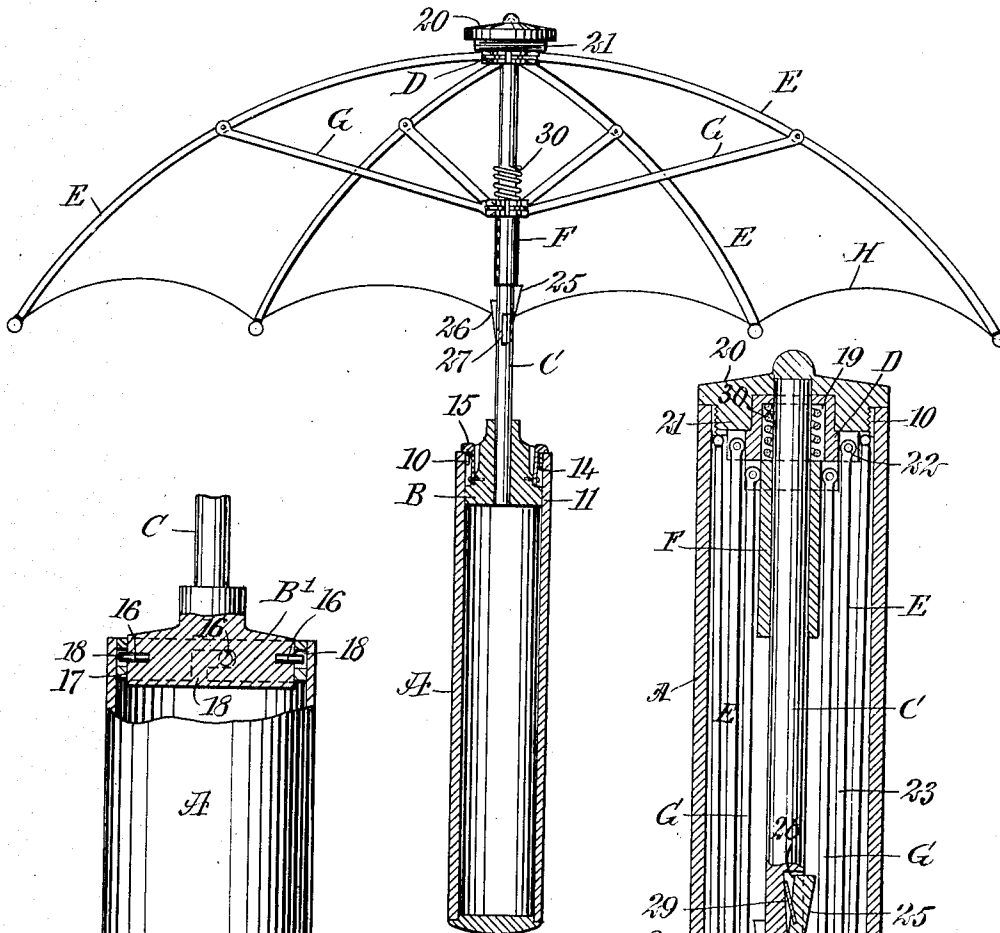


Fig. 3.

Fig. 1.

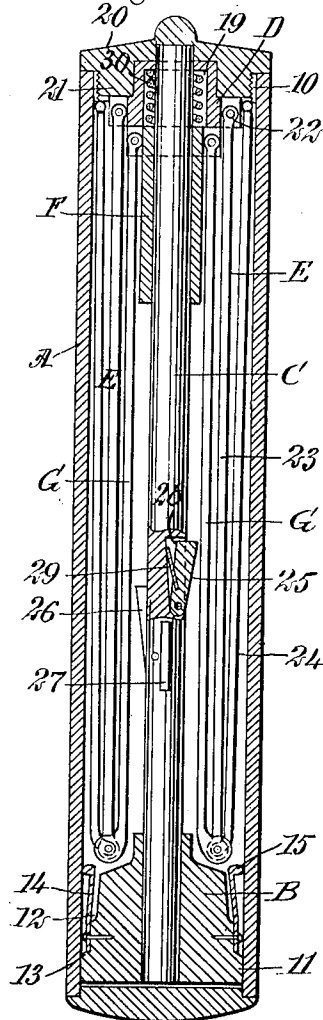


Fig. 2. INVENTOR
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JOSEPH FRANCIS DOLLES, OF CHESTER, ILLINOIS.

FOLDING UMBRELLA.

No. 892,813.

Specification of Letters Patent.

Patented July 7, 1908.

Application filed August 28, 1907. Serial No. 390,429.

To all whom it may concern:

Be it known that I, JOSEPH F. DOLLES, a citizen of the United States, and a resident of Chester, in the county of Randolph and State of Illinois, have invented a new and useful Improvement in Folding Umbrellas, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a substantial and serviceable umbrella or parasol that is simple, light, and strong in construction, and which can be folded in such a small compass that it can be conveniently placed in a pocket or in a suit case, satchel, or the like, or by means of a clip fastened to a person's clothing.

It is a further purpose of the invention to so construct the umbrella that it can be expeditiously unfolded and opened when needed, and wherein the handle of the umbrella serves as a receptacle for the folded body of the umbrella, rendering it possible for the umbrella to be folded and inclosed while wet without danger of dampening any object or material with which it may be brought in contact.

The invention consists in the novel construction and combination of the several parts as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal section through the umbrella; Fig. 2 is an enlarged longitudinal section through the folded umbrella; and Fig. 3 is an enlarged sectional side elevation of the upper portion of the handle and lower portion of the stick illustrating a modified form of the locking connection between the stick and the handle.

A represents a handle of the umbrella which likewise serves as a casing for the body portion of the umbrella. This handle A is tubular, being closed at the bottom and open at the top, and at its upper end an interior collar 10 is secured, having a threaded inner face, as is illustrated in Figs. 1 and 2. A carrier B for the umbrella stick C is mounted to slide in the said handle A, the stick C being secured in any suitable or approved manner to the central portion of the carrier B. The lower portion 11 of the carrier B is of such diameter that it fits quite snugly to the inner

wall of the handle A, but above its lower portion 11 a stepped annular exterior recess 12 is formed, as is best shown in Fig. 2, producing thereby a shoulder 13, which shoulder will be brought in engagement with the inner edge of the collar 10 when the collar has been moved to its furthest outer position, thus preventing the carrier from being accidentally withdrawn from the handle.

At the recessed portion 12 of the carrier, a series of spring latches 14 is secured, and each latch is provided at its upper or outer end with an outwardly extending head 15. When the carrier has been brought to its furthest outer or upper position, as is shown in Fig. 1, the heads of the spring latches 14 engage with the outer edge of the handle A, and thus hold the carrier B in its outer position, and the stick C in carrying position, or in position for use. But I do not confine myself to the locking means illustrated in Fig. 2, since the means illustrated in Fig. 3 may be employed instead, if found desirable. This substitute means consists in projecting pins 16 from the peripheral portion of the carrier designated in Fig. 3 as B', which pins 16 are adapted when the carrier is drawn outward to enter bayonet or angular slots 18 in the collar 17 secured to the inner faces of the said handle A at its outer end, being a substitute for the collar 10, shown in Fig. 2.

The crown D or that portion of the umbrella to which the ribs are pivoted, is provided with an upwardly extending central well 19, and this well is secured to and is covered by a cap 20, which cap has a reduced exteriorly threaded portion 21.

When an umbrella is folded and the stick thereof is fully contained in the handle A, as is shown in Fig. 2, the cap 20 is screwed into the open end of the handle to close the same; when the locking device shown in Fig. 3 is employed the cap may have simply frictional engagement with the inner face of the collar 17, but it is obvious that the collar 17 may be interiorly threaded as is the collar 10, in which latter event the cap 10 may be screwed to the collar when the umbrella is a complete folded package, as has been described. The ribs E are secured to the crown D in the customary way, as is illustrated particularly at 22 in Fig. 1, but the ribs E are constructed in two sections, namely an upper section 23 that is pivoted to the crown, and a lower section 24 that is pivotally connected to the upper section.

Any preferred form of runner F is employed to travel upon the stick C and the stretchers G are pivotally connected with the crown section of the runner in any approved manner, and the said stretchers at their outer ends connect with the ribs E where their members are pivotally joined.

In connection with the runner, while one retaining latch may be employed, I preferably use three, one below the other, as is shown in Figs. 1 and 2, each latch being at a different face of the stick and each latch is pivoted at the lower end in a recess 28 made in the stick and is normally held to project beyond the outer face of the stick at its upper end by means of a spring 29, as is shown in Fig. 2. These retaining latches are adapted for engagement with the inner face of the runner F when the runner is drawn over a latch, but the runner may be provided with the customary slot from which the latch may extend, if so desired, the object of having three of the retaining latches is to exert more or less tension upon the ribs E when the umbrella is open, so as to bow the said ribs to a greater or lesser degree, and thus render them more stable according to the character of the weather.

A cover H is secured to the ribs in any suitable or approved manner. When the runner F is carried upwardly the ribs are folded down parallel with the stick and when the runner F is drawn downward, the ribs are bowed outward, as is shown in Fig. 1, and in order that the runner in closing the umbrella shall not engage too violently with the crown, a spring 30 is loosely mounted on the stick between the crown and the runner, and when the umbrella is closed this spring is compressed in the well section 19 of the crown; also this spring 30 serves to assist in the opening of the umbrella.

In operation, supposing the umbrella to be opened, as is shown in Fig. 1, and it is desired to close it, the runner F is carried upward after being released from the latch with which it may be engaged, which will bring the ribs downward parallel with the stick C, then the lower sections of the ribs are folded up upon the upper section and the body in its folded position including the stick folds into the handle A, which acts as a casing therefor, and the handle is closed by the cap 20. Thus it is evident that no matter how wet the cover may be when the umbrella is closed, no moisture will escape from the handle casing A.

I desire it to be understood that I do not restrict myself to any particular material in

the construction of the stick and in the construction of the handle A.

An umbrella constructed as above can be folded so that it will not be over thirteen inches long; it can be made very light and is very simply constructed and easily operated. It may be here remarked that where the ribs join the stretchers the stretchers are upwardly curved and the upper section of the ribs downwardly curved to meet them.

Having thus described my invention, I claim as new and desire to secure by Letters Patent,—

1. In a folding umbrella, the combination with a tubular handle, a carrier mounted to slide in the handle, retaining devices located upon the carrier and adapted for locking engagement with the upper portion of the handle, a stop for the carrier located at the upper end of the handle, a stick secured to the carrier, ribs pivotally connected to the stick, which ribs are in folding sections, a runner mounted upon the stick, stretchers connecting the runner with the ribs where their members connect, latches for the runner carried by the stick, the umbrella body when its ribs are folded being adapted to enter and to be wholly contained within said handle, and a cap for the handle carried by the umbrella stick.

2. In a folding umbrella, the combination with a tubular handle closed at its bottom and provided with a threaded interiorly located stop projection at its upper open end, locking means located upon the carrier and adapted for sustaining and locking engagement with the upper end portion of the handle, of a stick secured to said carrier, a crown secured to said stick and provided with a well in its under face, a cap for the handle secured to the crown and adapted to be screwed to said stop projection, ribs pivotally connected to the crown, which ribs are in sections pivoted to hold one section over the other, a runner, a spring located in the well and adapted to be engaged by said runner, stretchers pivoted to the runner and to said ribs where their sections connect, and a plurality of latches for the runner mounted at different sides of the stick and having stepped relation to each other.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSEPH FRANCIS DOLLES.

Witnesses:

J. B. SIMPSON,
EMMA HEMPLER.