W. O. HOFFLAND.

FOLDING UMBRELLA.

APPLICATION FILED AUG. 13, 1917.

1,263,891.

Patented Apr. 23, 1918.

Fig. 1.

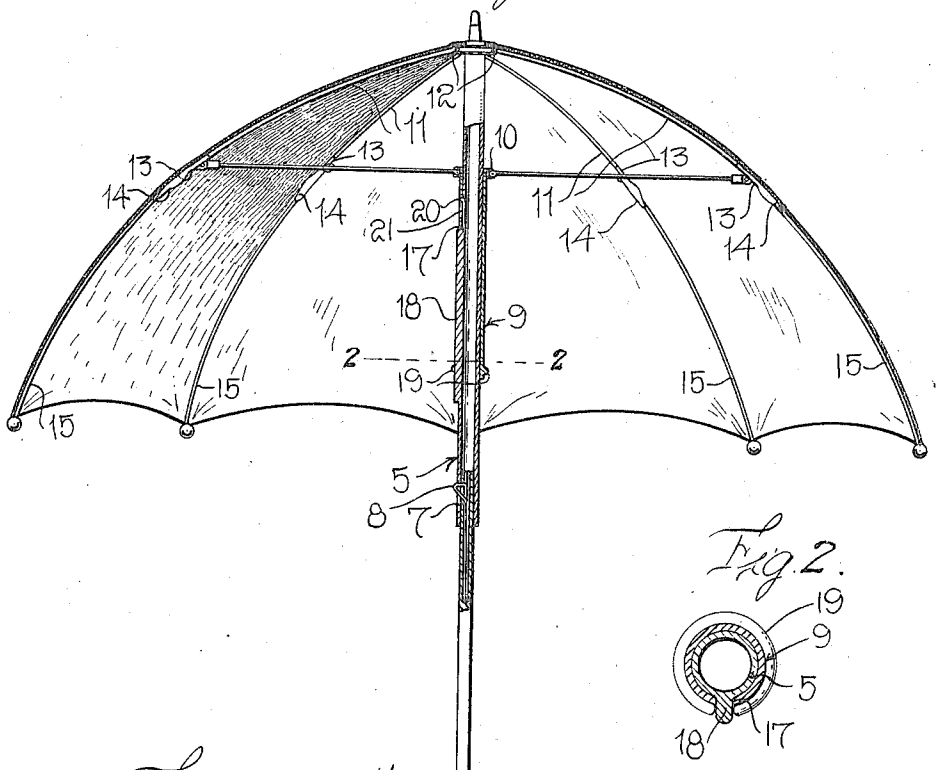


Fig. 2.

Fig. 3.

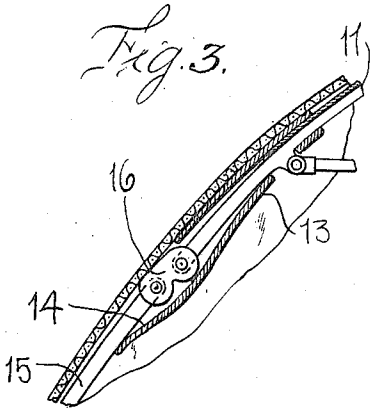
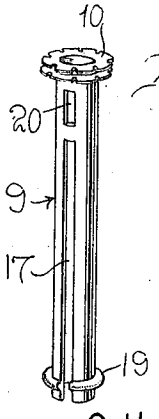


Fig. 4.



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FOLDING UMBRELLA.

1,263,891. Specification of Letters Patent. Patented Apr. 23, 1918.

Application filed August 13, 1917. Serial No. 186,001.

To all whom it may concern:

Be it known that I, WILLIAM O. HOFFLAND, a citizen of the United States, residing at Red Wing, in the county of Goodhue and State of Minnesota, have invented certain new and useful Improvements in Folding Umbrellas, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved folding umbrella and has for its primary object to provide an umbrella which may be very easily, quickly, and compactly folded into small compass so that it can be packed in a suitcase or handbag.

It is another and more particular object of my invention to provide a folding umbrella having a rod or staff consisting of telescopically engaged sections, cover ribs connected to one end of the outer rod section, a runner and guide means on said rod section for the runner, bracing ribs connected to the outer end of the runner, said cover ribs having relatively foldable sections, latch means to retain the runner in position when the umbrella is opened, and latch means to hold the inner rod section in extended relation to the outer rod section.

It is a further general object of my invention to provide a device of the above character, which is simple and durable in its construction and may be produced at relatively small manufacturing cost.

With the above and other objects in view, my invention consists in the novel features of construction, combination, and arrangement of parts to be hereinafter more fully described, claimed, and illustrated in the accompanying drawings, in which,

Figure 1 is a longitudinal sectional view of an umbrella showing the same open and illustrating the preferred embodiment of my invention.

Fig. 2 is a section taken on the line 2—2 of Fig. 1;

Fig. 3 is a detail longitudinal section through one of the sectional cover ribs and braces;

Fig. 4 is a perspective view of the runner.

Referring in detail to the drawing, 5 designates the main tubular section of the umbrella rod or staff, in which a solid rod section 6 is telescopically engaged. The tubular rod section is provided adjacent its lower end with a slot, indicated at 7, to receive the resilient latch element 8 fixed to the rod section 6, whereby the latter is retained in extended relation to the rod section 5.

9 designates a runner slidably mounted upon the tubular rod section, one end of said runner being provided with a flange to which the bracing ribs 10 are pivotally connected in any ordinary or approved manner. Cover rib sections 11 are similarly connected to the outer end of the tubular rod section 5, as shown at 12, and to these cover rib sections the bracing ribs 10 are pivotally connected at their outer ends. Sleeves 13 are suitably secured upon the ends of the cover rib sections 11 and are provided with channeled extensions 14 to provide seats for the outer cover rib sections 15 which are pivotally connected to the rib sections 11 by the links 16. These channeled seats limit the pivotal movement of the cover rib sections 15 in one direction into alinement with the main rib sections 11.

The runner 9 is provided with a longitudinally extending slot 17 to receive a longitudinal rib 18 secured upon the tubular rod section 5. This rib serves as a guide for the runner and prevents its rotative movement upon the rod. Adjacent its lower end, a split ring or annulus 19 is suitably secured to the runner, one terminal of which is engaged upon the rib 18. This ring reinforces the lower end of the runner and prevents spreading of the same upon opposite sides of the rib. The runner is further provided adjacent its outer end with a relatively short slot 20 to receive the resilient latch element 21 fixed to the rod section 5.

In the operation of the device as above explained, it will be understood that when the umbrella is opened, the inner rod section 6 is extended with respect to the outer section 5 and held in such extended relation by the latch element 8, while the runner 9 is moved downwardly upon the rod section 5 and held by the latch element 21, said runner in its movement spreading the bracing ribs 11. The cover rib sections 15 are forced outwardly into engagement upon the seats 14 and into alinement with the rib section 12. When it is desired to fold the umbrella, it is only necessary to release the runner 9 and force the same longitudinally in an outward direction toward the end of the rod section 5 and then fold the cover rib sections 15 outwardly and upon the rib sections 11. The rod or staff section 6 is then forced longitudinally into the

tubular section 5. Thus, the umbrella can be very compactly folded, and in such condition, packed in a relatively small space within a suitcase or handbag.

From the above description, taken in connection with the accompanying drawings, the construction, manner of operation, and several advantages of the device will be clearly and fully understood. It will be manifest that the umbrella can be very easily and quickly opened or folded and, owing to the fact that the device consists of relatively few parts which are of relatively simple construction, it can also be manufactured at relatively small cost.

While I have herein shown and described the preferred construction and arrangement of the several parts, it is to be understood that the device is susceptible of considerable modification therein and I, therefore, reserve the privilege of adopting all such legitimate changes as may be fairly embodied within the spirit and scope of the invention as claimed.

Having thus fully described my invention, what I desire to claim and secure by Letters Patent is:

1. In a folding umbrella, an outer tubular rod section, an inner section telescopically engaged in said tubular section, means for holding said sections in extended relation, sectional foldable cover ribs connected to the outer end of the outer rod section, a runner longitudinally movable on said outer rod section and having a slot therein, a longitudinal rib on the rod section disposed in said slot and constituting a guide for the runner, a split reinforcing ring secured to the inner end of the runner and engaged at one of its ends upon said rib, and bracing ribs pivotally connected to the outer end of the runner and to the respective inner cover rib sections.

2. A folding umbrella including a staff consisting of telescopically engaged sections, a runner longitudinally movable on the staff, the inner cover rib sections being pivotally connected to one end of the staff, sleeves fixed upon the other end of said rib sections and having channeled seats, an outer rib section, a relatively movable link pivotally connected to the inner end of the latter rib section and to the other end of the inner rib section, said outer rib section being adapted for engagement in said seat and supported by the seat in alinement with the inner cover rib section when the umbrella is opened, and bracing ribs connecting the respective inner cover rib sections and the outer end of the runner.

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

WILLIAM O. HOFFLAND.

Witnesses:

ALBERT MOHU,

JOS. R. EICHINGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."