J. P. Schenkl.

Umbrella.

No. 29,721. Patented Aug. 21. 1860

Fig. 2.

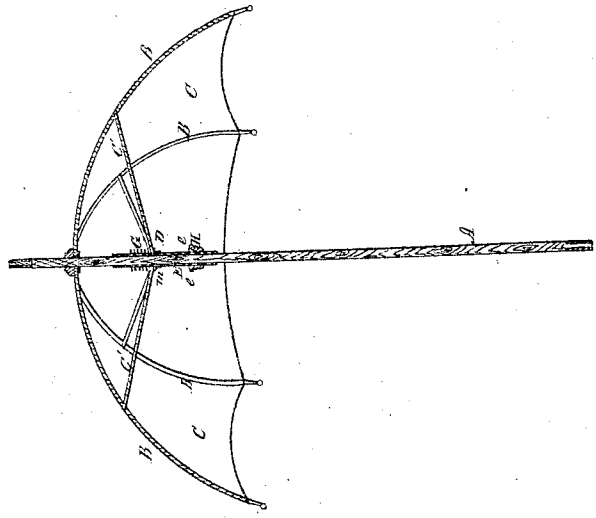


Fig. 4.

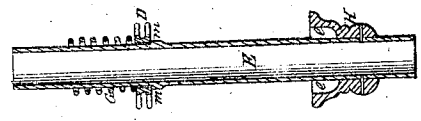


Fig. 5.

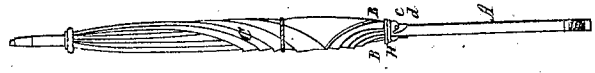


Fig. 3.

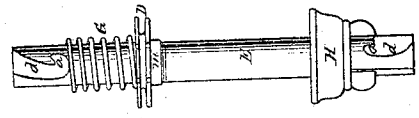
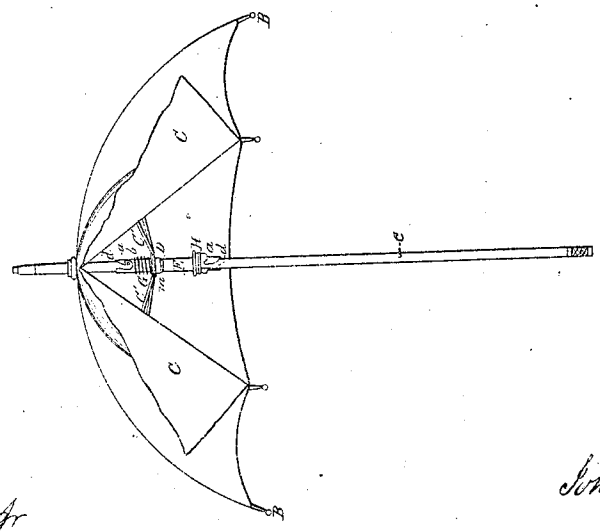


Fig. 1.



Witnesses.
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F. P. Hale Jr.

Inventor.
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UNITED STATES PATENT OFFICE.

JOHN P. SCHENKL, OF BOSTON, MASSACHUSETTS.

UMBRELLA.

Specification of Letters Patent No. 29,721, dated August 21, 1860.

To all whom it may concern:

Be it known that I, JOHN P. SCHENKL, of Boston, in the county of Suffolk and State of Massachusetts, have made a new and useful Invention Having Reference to Umbrellas or Parasols; and I do hereby declare the same to be fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1, is a side view of an umbrella as furnished with my invention, the cloth covering of the frame being exhibited as removed in part in order to more clearly show the said invention. Fig. 2, is a longitudinal section of the same. Fig. 3, is a side view, on an enlarged scale of the runner or tubular slider, its joint ring, spring, and rib cap, while Fig. 4, is a longitudinal section thereof. Fig. 5, exhibits the umbrella as closed and with the rib cap covering the ends of the ribs.

In the said drawings, A, denotes the stick or staff of the umbrella, while B, B, B, etc are the elastic ribs applied thereto in the ordinary way and employed to support the cloth covering C.

C′, C′, denote the struts or bars which are hinged to the several ribs and to the joint ring, D, of the runner or slider, E.

In carrying out my invention, the slider or runner, E, is to be applied to the joint ring so as to extend in opposite directions through it, be separate from it, and be capable of sliding through it longitudinally and turning within it transversely. Furthermore, at each end of the slider, there is to be a bayonet catch or hook *a*. When the umbrella is open far enough, one of these catches is to hook on a stud, *b*, projecting from the stick. So, when the umbrella is closed, the other catch is to hook on another stud, *c*, extended from the stick. Each bayonet catch, I form with a cam, *d*, arranged with respect to it, as shown in the drawings; and, furthermore, I not only envelop the slider where it projects above the joint ring, with a helical spring, G, but fasten one end of the spring to the slider and the other to the joint ring. Such a spring will not only permit the slider to have its proper movements within the joint ring, but will operate in concert with the cams of the bayonet catches to force and maintain either of them on its stud, at either the opening or closing of the umbrella.

Just above the lower catch, I apply or affix to the slider or runner, a rib cap, H, the same being formed so as to encompass the slider, and have a groove or channel, *e*, to receive the ends of the ribs or the ferrules thereof, and close over them when the umbrella is shut. The spring, G, will allow the slider to be drawn back past the ribs or their ferrules and will close it upon their ends after the force of retraction has been removed from it, the same serving not only to protect the ends from injury but to aid in keeping the umbrella properly closed.

In the drawings, the slider or runner, is exhibited as having a shoulder or bearing, *m*, to support the joint under the downward pressure of the spring and the ribs while the umbrella is either closed or open. A mechanical equivalent for the arrangement of the bayonet hooks on the slider, and their studs on the stick would be to have either one or two studs project from the slider and so arrange the hooks upon the stick as to cause one of them to so engage with the stud or one of the studs, during either the opening or closing of the umbrella, (as the case may be) as to hold it, while either open or closed.

With an umbrella so constructed, or having its runner or slider provided with bayonet catches and made to turn freely in the joint ring, it will be an easy matter to either latch or unlatch either catch, whether at the opening or closing of the umbrella, and particularly when each bayonet latch hook is provided with a cam, and the slider has a spring applied to it as described. And when the slider is so applied to the joint ring as to be capable of both sliding and turning therein, and both joint ring and slider have a helical spring or its equivalent as specified, it will be an easy matter not only to operate the catches during either the opening or closing of the umbrella, but also to operate the rib cap so as to enable it either to cover or uncover the ribs or their ferrules. The great utility of my invention is therefore very perceptible.

I do not claim the application of spring lever catches to the tube or runner around the stick of the umbrella for the purpose of locking the slider in position in order to retain the umbrella either in an open or closed state, but—

What I do claim is—

1. In applying the slider or runner to the joint ring of the rib struts in such manner

as to enable such slider to carry such joint ring and be turned or revolved therein and on the stick, and in constructing such slider and the stick with bayonet studs and catches, or equivalent latching devices applied to them substantially in manner and to operate as described.

2. In combination with the separate joint ring and the slider applied to it and furnished with bayonet catches as described, constructing both bayonet catches with inclines or cams and applying a retractive spring to the joint ring and the slider so as to turn such slider in a direction contrary to that in which it may be moved by either cam in order to effect the latching of a bayonet catch on its stud, at either the opening or the closing of the umbrella.

3. The application of the rib cap and its retractive spring directly to the slider or the slider and its catches so as to enable the rib cap to be moved with the slider and operated relatively to the outer ends of the ribs or the ferrules thereon essentially as above explained.

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