

1,047,450.

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

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CONTRACTIBLE UMBRELLA.

1,047,450.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL M. SARGENT, a citizen of the United States, and a resident of Wichita, in the county of Sedgwick and State of Kansas, have invented a new and Improved Contractible Umbrella, of which the following is a full, clear, and exact description.

The invention is an improvement in contractible umbrellas and has in view an umbrella construction in which the canopy, together with the staff, is adapted to be shortened and inserted in the umbrella handle, as when the umbrella is not in use. For this purpose the handle is of an expansible nature so as to open out when the canopy and staff are passed within it, and assume a conventional size when used in the ordinary way.

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 views.

Figure 1 is a view of my contractible umbrella when the parts are assembled for use, showing the covering partly broken away; Fig. 2 is a similar view on an enlarged scale, with the handle removed and certain of the parts in central vertical section; Fig. 3 is a perspective view of the umbrella handle when the canopy is arranged within it; Fig. 4 is a longitudinal fragmentary section of one of the umbrella ribs; Fig. 5 is a fragmentary view, partly in central vertical section, showing the connection between the two sections of the umbrella staff; Fig. 6 is a section on the line 6—6 of Fig. 5, looking in the direction of the arrow; and Fig. 7 is a section through the handle on the line 7—7 of Fig. 1.

The staff of the umbrella is constructed of two telescoping sections, the outer section 10 being sufficiently large to receive the inner section 11 and having a threaded inner end 12, to which is detachably secured a handle 13, the latter having an internally-threaded thimble 14 for this purpose. The outer end of the outer section 10 of the staff is provided with a removable collar 15 snugly fitting the inner section 11 of the staff, the collar having at its outer end, oppositely-disposed lugs 16 and connected to the staff section 10 by screw-threads. The staff section 11 at its inner end is provided with a head 12^a of a size to snugly fit within

and slide in the staff section 10, the head 12^a being insertible in the staff section 10 when the collar 15 is removed. At a distance from the head 12^a, slightly greater than the length of the collar 15, the inner staff section is provided with oppositely-arranged pins 17 normally forced outwardly by an intermediate spring 18. As shown in Fig. 6, this spring is incased within a tube 19, in which the heads of the pins 17 are slidable and arranged crosswise of the staff section 11. In order that the spring-pressed pins 17 will be forced inwardly and pass through the collar 15 when the staff is extended, the inner end of the collar 15 is conically bored as indicated at 20, and in order that the pins may be likewise pressed when they are brought into contact with the edges of the lugs 16 in turning the staff sections relatively to each other preparatory to telescoping the staff, the pins are oppositely beveled, as shown in Figs. 5 and 6. In addition to the lugs 16, the outer end of the collar 15 is notched at opposite sides, as indicated at 21, to receive the pins 17 and lock the staff sections together, the pins being drawn into these notches when they are brought into register therewith, by a spring 22 arranged on the staff section 11 adjacent to the head 12^a, the spring bearing, when the umbrella staff is extended, on the inner end of the collar 15.

The ribs of the umbrella are pivotally connected to the head 23, as is the usual practice, the head in the present construction being fixed to the inner section 11 of the staff. The ribs are each made of two sections, an outer section 24 and an inner section 25, the outer section being of channeled form, as is customary, with a tubular outer end 26, in which the inner section 25 of the rib, also of channeled construction, is slidably received, the outer section having a notched or toothed projection 27 engaged, when the rib is fully extended, by a spring-pawl 28 attached to the outer rib section 24.

A runner 29 slidable on the outer staff section, is connected to the ribs, as usual, by the stays or braces 30, the connection between the stays and ribs taking place with the outer rib sections 24 at the outer tubular ends 26. A cover 31 is applied in the usual manner and is further secured to the tubular ends 26 of the outer rib sections so that when the umbrella is lowered and the sections of the staff moved from the relative

position shown in Fig. 5 to that shown in Fig. 2, the two sets of rib sections will telescope within each other and the cover will gather up at an intermediate point in the fold, as shown.

The handle 13 is preferably of angular cross-section, in the present instance shown to be square, and tapers from the thimble 14 to the opposite and largest end, at which point it is provided with a removable cap 32. The handle is of hollow construction, with the several sides connected together by flexible loops 33 arranged interiorly at the corners, as shown in Fig. 7, the loops being larger adjacent to the thimble 14 and diminishing in size as the enlarged end of the handle is approached. Each side of the handle is hinged at points 34 and 35 arranged a substantial distance apart and adjacent to the thimble 14, adapting the sides to swing to and from the vertical center of the handle and enabling the expansion of the latter, as illustrated in Fig. 3. When the umbrella has been contracted in length and the handle separated from the staff, the cap 32 of the handle is removed and the canopy and umbrella staff inserted within this end of the handle, entering first the ferrule end of the staff, which, as shown in Fig. 3, passes out the opposite end of the handle through the thimble 14. When the canopy and staff are fully inserted, the cap 32 is again replaced and a compact article afforded.

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

1. An umbrella, comprising a body portion contractible in length, and a hollow detachable handle for the reception of the body portion when detached, said handle being formed of a plurality of members and flexible connections between the said members, whereby the diameter of the handle will be increased when said body portion is inserted therein.

2. An umbrella, comprising a body portion contractible in length, and a hollow detachable handle for the reception of the body portion when detached, said handle

being formed of a plurality of members each having at its inner end a section hinged to fold inwardly, and flexible connections between the said members.

3. In an umbrella, a staff composed of telescoping sections, the outer section having a collar at its outer end closely fitting the inner section, and the inner section having an enlargement and provided with spring-pressed pins arranged outwardly of said head, said collar having its inner end shaped to force the pins inwardly when the staff is extended, and provided with lugs at the outer end thereof to force the pins inwardly when the staff sections are relatively revolved preparatory to telescoping the staff sections, and a spring arranged on the inner staff section adjacent to the head to tend to draw the spring-pressed pins into notches in the outer end of the collar when the staff is extended.

4. The combination of a tapering umbrella handle having the enlarged portions arranged at its free end, the said handle having separable side faces, with flexible loops connecting the adjacent side faces together and arranged within the handle, each side face hinged at separate points adjacent to its inner end, adapting the side faces to move outwardly to the limit afforded by the loop, and an umbrella canopy detachably connected to and insertible within the handle.

5. The combination of an umbrella handle having side faces, with the adjacent side faces connected together by flexible members, each side face having a hinge adapting it to swing outwardly from adjacent sections within the limits afforded by said members, and a telescoping umbrella canopy detachably connected to and insertible within the handle.

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

SAMUEL M. SARGENT.

Witnesses:

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