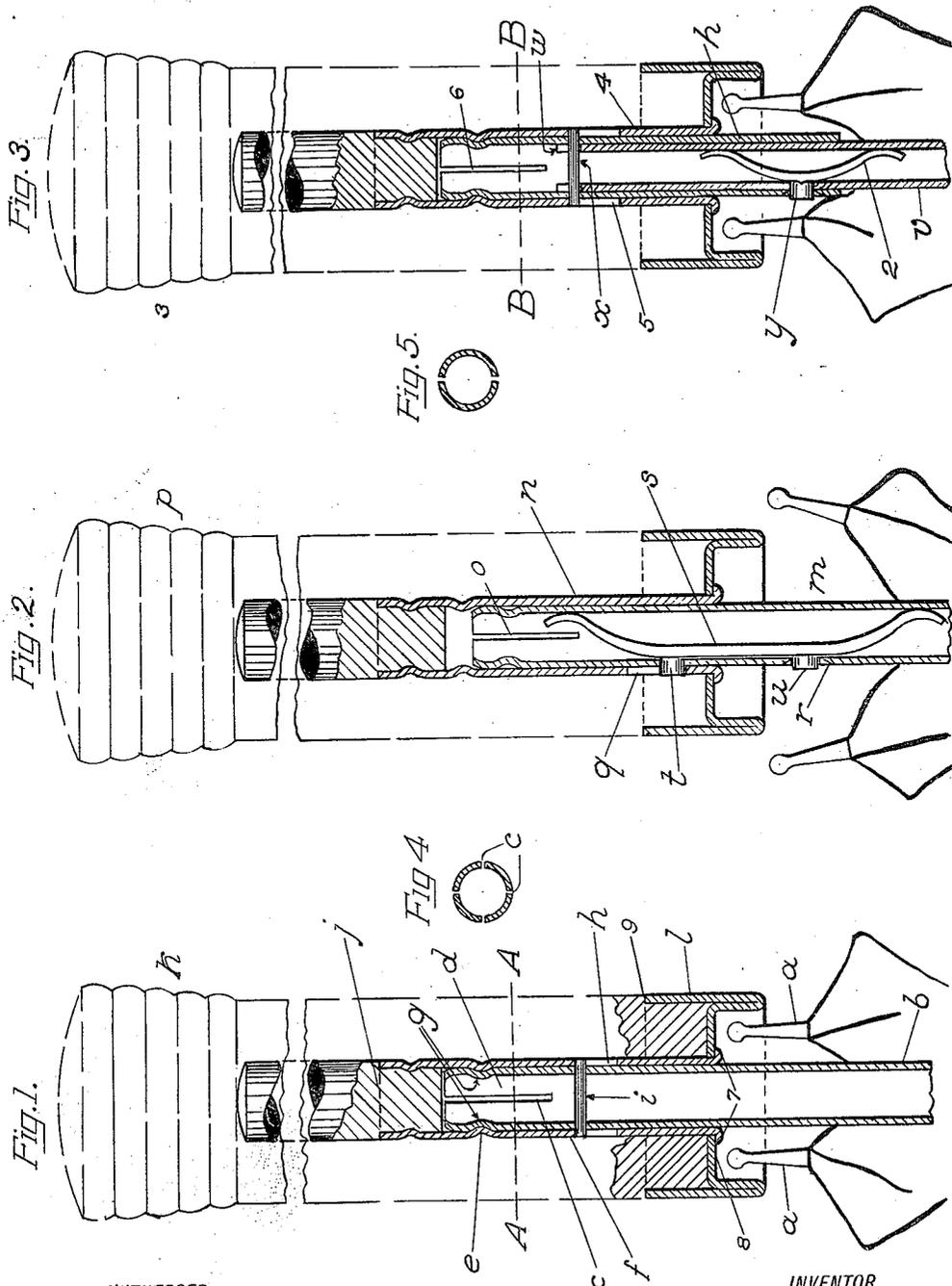


A. ERICKSON.
 ADJUSTABLE RIB TIP HOLDING UMBRELLA HANDLE.
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1,042,417.

Patented Oct. 29, 1912.



WITNESSES:

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ADJUSTABLE RIB-TIP-HOLDING UMBRELLA-HANDLE.

1,042,417.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANTON ERICKSON, a citizen of the United States, and a resident of Portland, county of Multnomah, State of Oregon, have invented a new and useful Improvement in Adjustable Rib-Tip-Holding Umbrella-Handles, of which the following is a specification.

My invention has for its object to provide means for securing together the tips of umbrella ribs when the umbrella is closed, so as to eliminate the annoyance of having the umbrella partly open while being carried about; also to so contrive said tip-confining means that they shall be virtually concealed by the umbrella handle; in other words, so as to be inconspicuous, and that the neatness of the handle will not be trespassed upon in any manner. Also to so arrange the parts that the rib-locking means may be brought into and out of active position by the mere up and down movement of the handle on the rod. These features and others incidental to my invention are hereinafter fully described, and illustrated in the drawings.

In the latter: Figure 1 is a partial sectional elevation, showing my invention applied to an umbrella made with a fixed handle; this view showing the device so arranged as to confine the tips of the ribs from spreading out; Fig. 2 shows my invention embodied in a well known type of umbrella, in which the handle is removable, my rib-holding device being moved to its inactive position, so as to disengage the tips of the ribs preparatory to the opening of the umbrella; Fig. 3 also illustrates my invention as applied to an umbrella of the removable-handle type; the arrangement of the parts is substantially the same, as far as the operation is concerned, as that illustrated in Fig. 2, the details of construction being, however, somewhat varied, as will be hereinafter fully explained; and the tip-holding devices are shown as arranged in their active state, so as to hold the ribs in closed position; Fig. 4 is a horizontal section taken on a line A—A of the inner tube seen in Fig. 1, showing such inner tube as made with four slits, for the purpose of rendering it resilient and permitting it to be sprung into and out of its active position;

and Fig. 5 is a plan section on line B—B of Fig. 3, showing the inner tube as having only two slits; the details of Figs. 4 and 5 are, however, mere matters of convenience.

Referring in the first instance to the device shown in Fig. 1: *a, a*, represent the tips of umbrella ribs, and *b* the common tubular umbrella rod. The latter is slitted at the top, as at *c*, and as shown in the cross section Fig. 4, so as to render the separated upper portions *d* compressible, for the purpose of springing said portions into and out of engagement with the indentations or protrusions *e* of the sleeve *f*; said separated portions *d* being provided with corresponding depressions or concavities *g*. The sleeve *f* is adapted to slide freely on the rod *b* and it is slitted in its opposite walls at *h*, so as to receive the projecting ends of the stop-pin *i*. In the upper end of the sleeve *f* is secured a plug *j*, and on such plug is affixed a handle *k*. On the lower end of the sleeve *f* is affixed a cup-shaped ferrule *l*, stamped or otherwise made in any convenient manner.

By seizing the umbrella below the ferrule with one hand, and seizing the handle *k* with the other, the indentations *e* of the sleeve *f* may be disengaged from their locking contact with the correlated concavities *g* of the rod *b*, and the ferrule may then be pulled up sufficiently to clear the tips *a*, and permit the umbrella to be opened, substantially as represented in Fig. 2. In the latter the tubular rod *m* has slidingly mounted on it a sleeve *n*, slitted at the top, as at *o*, for the purpose mentioned; and the details of construction in other respects are substantially the same, except that the handle *p* is removable. To permit such removal, the sleeve *n* is made with a slot *q*, and the rod *m* is made with an aperture *r*. Within the rod *m* is inserted a spring *s*, made with a stud *t* and a button *u*. The latter is made of such height that when pressed in, by a finger bearing thereon, the stud *t* will be withdrawn from the slot *q* and permit the detachment of the handle. In other respects the device operates in the same manner as described with respect to Fig. 1.

Fig. 3, as already mentioned, shows a construction resembling and operating like that

shown in Fig. 2. The rod *v* is forked at its upper end *w*, so as to straddle a transverse pin *x*, affixed in the intermediate sleeve *h*, which is normally locked in place by the stud *y* on the spring 2, which projects through an aperture of the intermediate tube. By pressing in the stud *y* with the finger, and disengaging it from the intermediate sleeve *h*, the latter may be slid off the rod *v*; such action taking place when the handle 3 is to be detached. On the intermediate sleeve *h* is slidably mounted a sleeve 4, slitted at its opposite side 5, so as to receive the ends of the pin *x*. The upper end of the intermediate sleeve *h* is slitted longitudinally, as at 6, and the operation of the devices here shown, in other respects, is the same as that of the devices shown in Figs. 1 and 2.

The slitted upper end of the umbrella rod must be adapted to hold the handle securely against slipping out of place, whether the ferrule be arranged to engage or to release the rib-tips.

As will be noted from the illustration, the sliding movement of the handle is limited, in two instances, by a stop-pin *i* (Fig. 1) or *x* (Fig. 3), and in the construction shown in Fig. 2 by the lug *z*. Thus when the handle has been pulled up as far as it will go, as shown in Fig. 2, the upper split or slitted ends of the umbrella rod will bear against the indentations of the outer sleeve. And the slitted upper ends of the rod are rounded so as to facilitate forcing them by the indentation of the outer sleeve.

The cup-shaped ferrule is secured in place on the lower end of the handle-piece, as more clearly illustrated in Fig. 1. The lower end of the handle is shouldered on its periphery, and thereon is affixed the inner end 9 of the perpendicular external flange of the ferrule 7; and the lower end of the outer tube *f* is crimped so as to form a flange 7, after it has been inserted through the central perforation of the horizontal disk 8 of the ferrule.

I claim:

1. In an umbrella, the combination of a rod the upper end of which is slitted longitudinally so as to be compressible; a sleeve slidably mounted on said slitted rod-end; the inner end of said sleeve being provided with a longitudinal slot, a spring inserted in the rod and provided with a stud projecting through said slot of the sleeve, and said spring also being made with a button projecting through an orifice therefor provided in the rod, and the parts being so arranged that when the button of the spring is depressed the stud on the latter will be withdrawn from the slotted end of the sleeve and permit the removal of the latter from the rod; means for holding the sleeve in the position to which it is slitted until forcibly re-

arranged; a ferrule affixed on the lower end of the sleeve and including a cup-shaped portion adapted to be set over the rib-tips when arranged together at the base of the handle; and a handle affixed on said sleeve. 70

2. In an umbrella, the combination of a rod the upper end of which is slitted longitudinally so as to be compressible; said slitted upper-end having a depression formed in it; a sleeve slidably mounted on said slitted rod-end and provided with a protrusion on the interior adapted to be seated in said depression of the rod; the inner end of said sleeve being provided with a longitudinal slot, a spring inserted in the rod and provided with a stud projecting through said slot of the sleeve, and said spring also being made with a button projecting through an orifice therefor provided in the rod, and the parts being so arranged that when the button of the spring is depressed the stud on the latter will be withdrawn from the slotted end of the sleeve and permit the removal of the latter from the rod; a ferrule affixed on the lower end of the sleeve and including a cup-shaped portion adapted to be set over the rib-tips when arranged together at the base of the handle; and a handle affixed on said sleeve. 80 85 90

3. In an umbrella, the combination of a rod the upper end of which is slitted longitudinally so as to be compressible; the extremities of said slitted portions being rounded and said slitted end also having a depression formed in it; a sleeve slidably mounted on said slitted rod-end and provided with a protrusion on the interior adapted to be seated in said depression of the rod; the inner end of said sleeve being provided with a longitudinal slot, a spring inserted in the rod and provided with a stud projecting through said slot of the sleeve, and said spring also being made with a button projecting through an orifice therefor provided in the rod, and the parts being so arranged that when the button of the spring is depressed the stud on the latter will be withdrawn from the slotted end of the sleeve and permit the removal of the latter from the rod; a ferrule affixed on the lower end of the sleeve and including a cup-shaped portion adapted to be set over the rib-tips when arranged together at the base of the handle; and a handle affixed on said sleeve. 95 100 105 110 115

4. An umbrella handle having a socket tube inserted therein, a tip retainer mounted on said socket tube, a sliding tube telescoping within said socket tube and adapted to be rigidly mounted on an umbrella stick, said sliding tube being split and flared at its inner end to yieldingly engage said socket tube, and means to limit the relative sliding movement of said socket tube and said sliding tube. 120 125

5. An umbrella handle having a socket 130

tube inserted therein, a tip retainer at the outer extremity of said socket tube, a sliding tube telescoping within said socket tube having its inner end split and provided with means to engage said socket tube, the said socket tube having slots and the said sliding tube having a pin mounted in the slots to

limit the relative sliding movement of the two tubes.

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Witnesses:

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