C. A. HARTFIEL.

UMBRELLA.

APPLICATION FILED SEPT. 16, 1914.

1,145,768.

Patented July 6, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

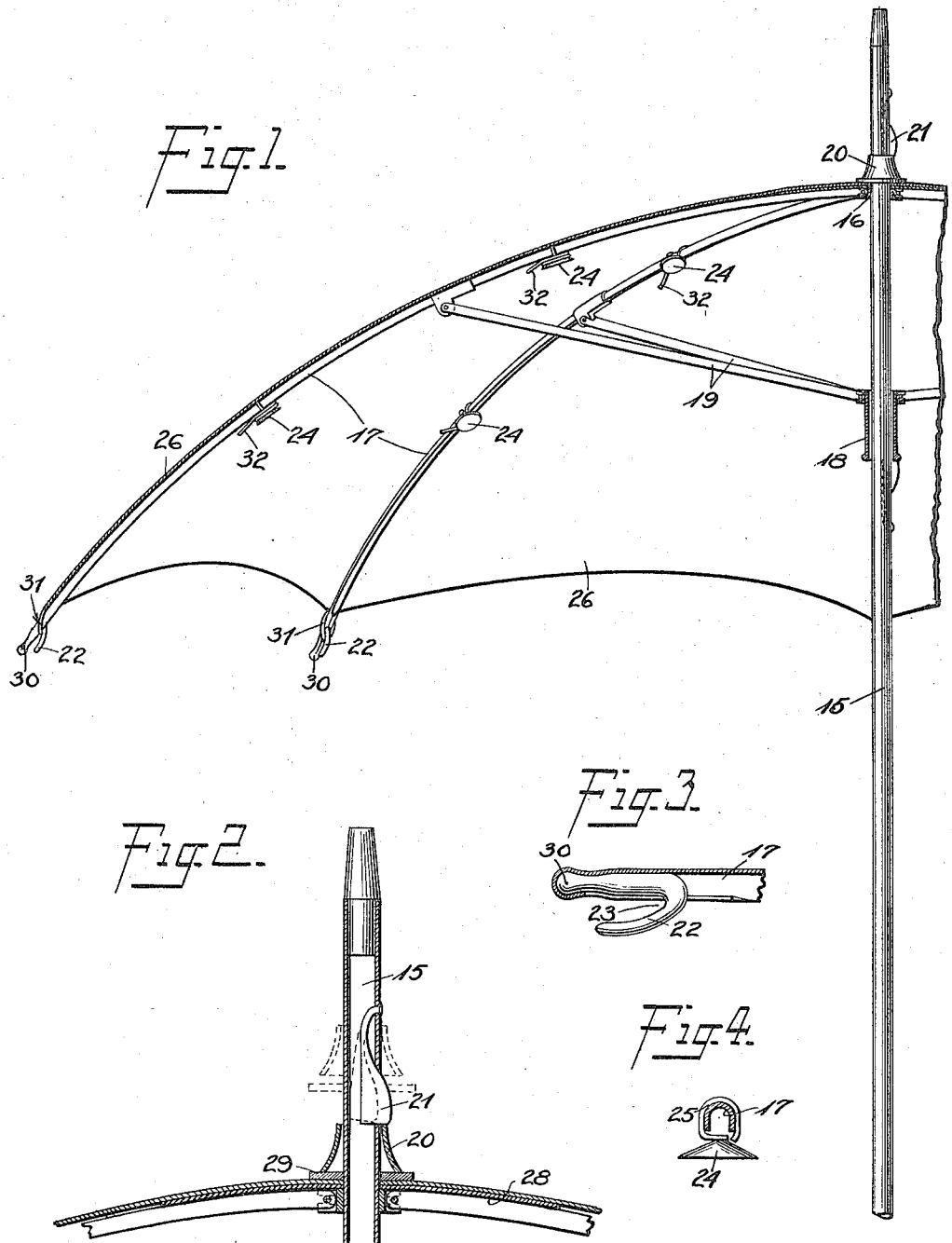


Fig. 2.

Fig. 3.

Fig. 4.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 5.

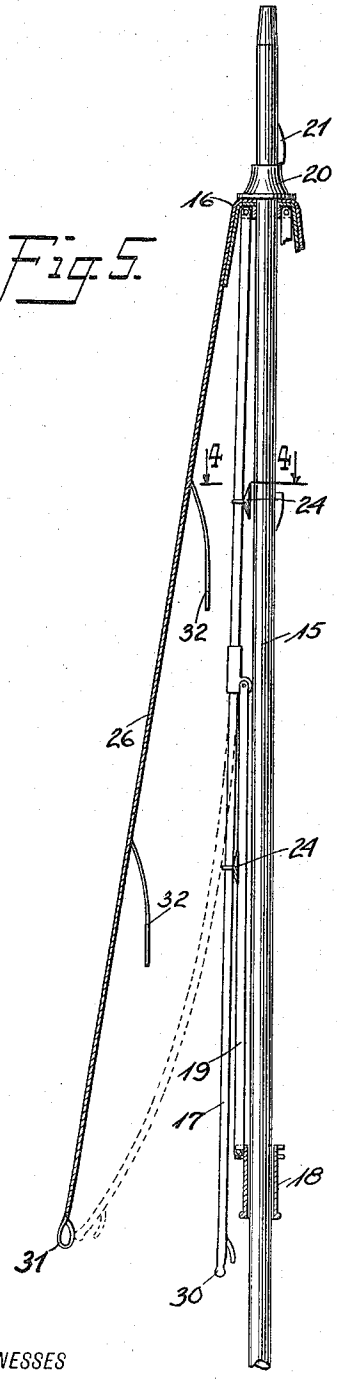


Fig. 6.

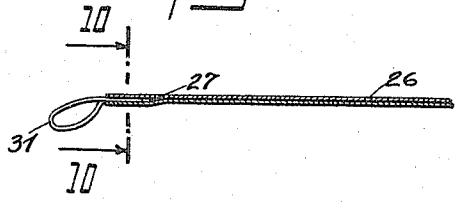


Fig. 7.

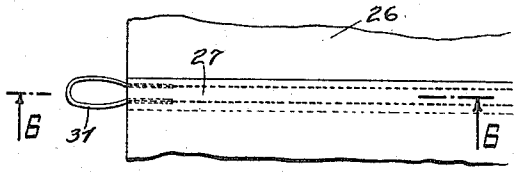


Fig. 8.

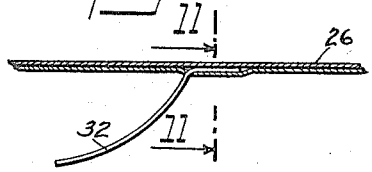


Fig. 9.

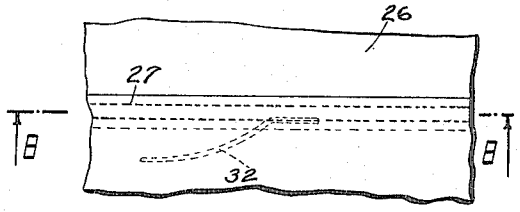


Fig. 10.

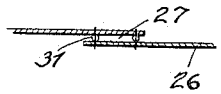


Fig. 11.



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UNITED STATES PATENT OFFICE.

CHARLES A. HARTFIEL, OF NEW YORK, N. Y.

UMBRELLA.

1,145,768. Specification of Letters Patent. Patented July 6, 1915.

Application filed September 16, 1914. Serial No. 862,018.

To all whom it may concern:

Be it known that I, CHARLES A. HARTFIEL, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and improved Umbrella, of which the following is a full, clear, and exact description.

This invention relates to umbrellas, parasols or the like, and has particular reference to a simple and convenient expedient for changing or renewing the cover of such an article.

Among the objects of the invention, therefore, is to provide an umbrella frame or skeleton and any suitable number of interchangeable covers therefor, whereby a new cover may be substituted for an old, worn or damaged one, or a cover of one color or figure may be substituted for another according to the costume of a lady carrying the same.

The foregoing and other objects of the invention will hereinafter be more fully described and claimed and illustrated in the drawings forming a part of this specification in which like characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a vertical sectional view of an umbrella indicating the nature of this invention, the view disclosing the inner side of the cover; Fig. 2 is a larger view, in section, of the crown portion of the umbrella; Fig. 3 is a detail view of one of the rib tips; Fig. 4 is a sectional detail on the line 4—4 of Fig. 5; Fig. 5 is an elevation of the rod and a full line indication of a rib without a cover, dotted lines, however, indicating the form of the rib when the cover is being secured to the tip thereof; Fig. 6 is a sectional detail on the line 6—6 of Fig. 7; Fig. 7 is a plan view of the same; Fig. 8 is a sectional detail on the line 8—8 of Fig. 9; Fig. 9 is a plan view of the same; and Figs. 10 and 11 are transverse sectional details on corresponding lines of Figs. 6 and 8.

The several parts of the device may be made of any suitable materials, and the relative sizes and proportions, as well as the general design of the mechanism, may be varied to a considerable extent without departing from the spirit of the invention hereinafter more fully set forth and specifically claimed.

Referring more particularly to the drawings I show an umbrella frame or skeleton having any usual or preferred form of rod 15, crown 16, ribs 17, runner 18 and stays 19. The crown includes in this instance a thimble 20 detachably connected to the rod by means of a spring catch 21 of a form substantially similar to the usual rod catches. Each rib at its tip is provided with a rigid hook 22 whose point projects inwardly and downwardly, terminating adjacent the extreme end of the tip but providing a V-shaped crotch or space 23. Each rib furthermore is provided with any suitable number of buttons 24, each connected slidably to the rib by means of a hook or metal loop 25 extending practically around the rib on the outside, the button being located along the inner edge of the rib. The buttons obviously may be slid or slipped along the ribs, but ordinarily they are prevented from rotation therearound.

At 26 I show one of any suitable number of covers of standard size corresponding to the size of the umbrella skeleton. Each cover, as heretofore, is preferably constructed of as many triangular pieces of material as there are ribs, said pieces being connected by seams 27 arranged opposite the several ribs. The cover is provided at its center with a reinforcement disk 28 surrounding the hole through which the rod passes. A washer 29 is then slipped over the end of the rod against the cover. The thimble 20 is finally slipped down against the washer 29 where it is held by the spring catch 21, locking the cover at this point securely but detachably in position. The cover then occupies the form or position indicated in Fig. 5, care being taken obviously to so lock the cover at the crown as to bring the seams 27 over the ribs 17. The next step is to spring the tip end of each rib outwardly, as shown in dotted lines in Fig. 5, so as to project the point 30 of the tip through a loop 31 stitched in the seam 27 at the outer end thereof, as shown in Figs. 6, 7 and 10, the loop drawing snugly into the crotch 23 of the hook 22 and after all of the loops 31 are thus hooked into place the umbrella will be opened in the usual manner. The cover is provided with any suitable number of cords 32 secured in the seams as indicated in Figs. 8, 9 and 11, the number of cords being preferably the same as the number of buttons 24.

The operator may then grasp each of these cords and wrap or snub it around the adjacent button, such button being movable along the rib as may be required. The entire operation of applying a cover to the umbrella, as thus described, requires but a few moments' time. Obviously the old or used cover may be removed by a reversal of these various steps, and a new cover substituted. As will be noted in the detail figures, the loops and cords 31 and 32 are preferably secured in place by certain stitches of the seams 27. The cover applied as indicated is of neat appearance and certain features of the invention thus described may be employed for use in connection with an auxiliary cover such, for instance, as a waterproof cover for a parasol. That is to say, an auxiliary cover may be provided for a parasol of the usual type, the same being provided with suitable means engaging over the points 30 of the tips.

I claim:

In an umbrella, the combination with a crown and a series of ribs secured to the crown, of a cover composed of a plurality of triangular pieces of material connected by seams parallel to the ribs, means to secure the center of the cover to the crown and the points of the cover at the ends of the seams to the ends of the ribs, a plurality of cords secured along the seams between adjacent triangles of the cover, said cords extending freely downwardly within the cover, and a plurality of buttons slidably connected to the ribs, each button including a U-shaped metal loop which prevents the button from turning around the axis of the rib, the loose ends of the cords being arranged to wrap around said buttons, substantially as set forth.

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

CHARLES A. HARTFIEL.

Witnesses:

GEO. L. BEELER,

SOPHIA OLSHANSKA.

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