K. C. HOUT.

UMBRELLA CONSTRUCTION.

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1,264,075. Patented Apr. 23, 1918.

FIG. 1.

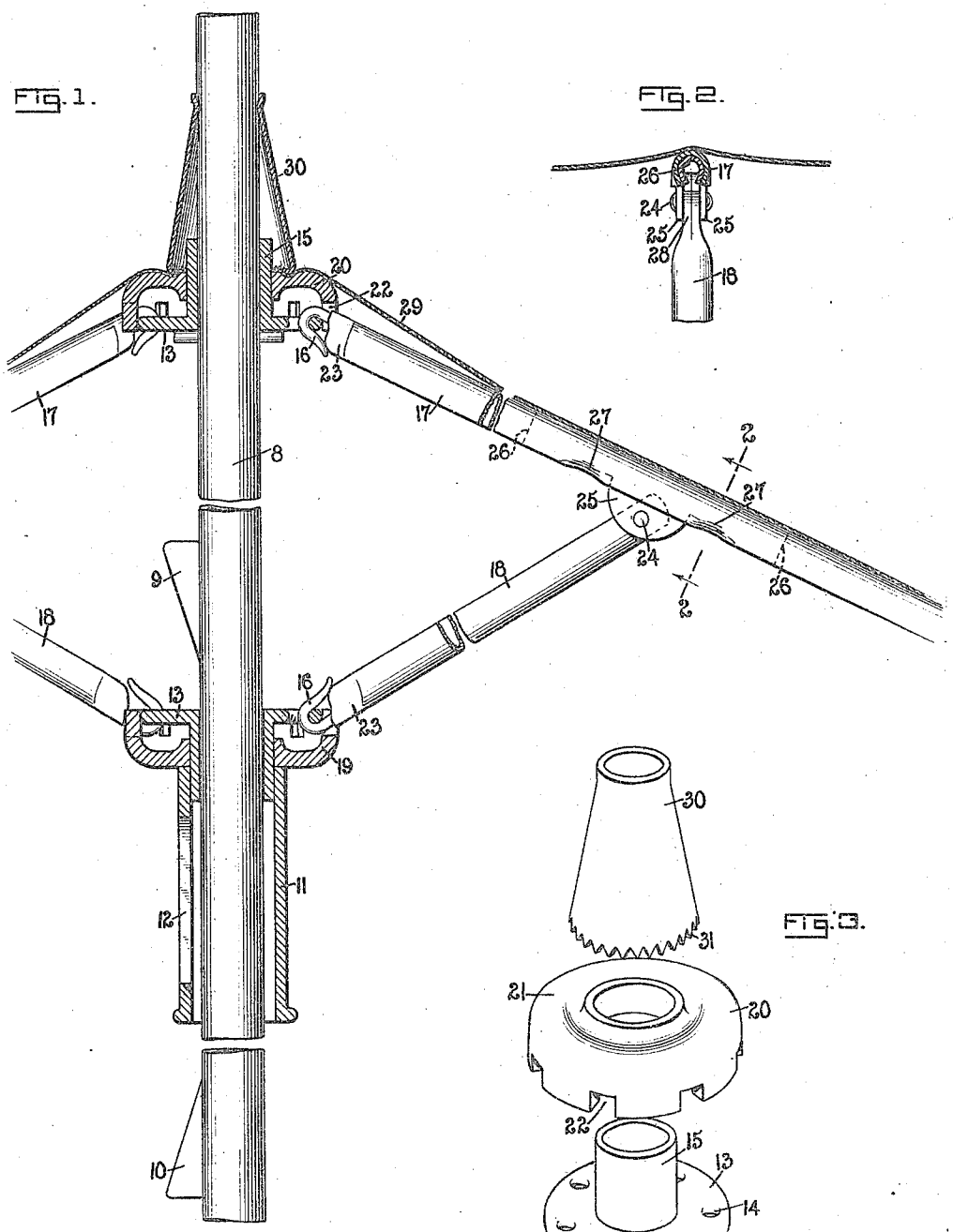


FIG. 2.

FIG. 3.

WITNESSES

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UMBRELLA CONSTRUCTION.

1,264,075. Specification of Letters Patent. Patented Apr. 23, 1918.

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To all whom it may concern:

Be it known that I, KATHERINE C. HOUT, a citizen of the United States, and a resident of the city of Albany, in the county of Albany and State of New York, have invented a new and Improved Umbrella Construction, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to simplify the construction of umbrella frames, to reduce the labor factor in the construction and assembling of said frames; and to provide means for dismembering said frames to facilitate the repair thereof.

Drawings.

Figure 1 is a view shown as a vertical section of an umbrella frame, constructed and assembled in accordance with the present invention; parts of the frame being shown as broken, and contracted for convenience of illustration;

Fig. 2 is a cross section, being taken on the line 2—2 in Fig. 1;

Fig. 3 is a detail view showing in spaced relation members forming the crown and ferrule of the umbrella construction when made in accordance with the present invention.

Description.

As shown in the drawings, the umbrella stick 8 is provided with the usual spring latches 9 and 10; an operating sleeve 11 has a slot 12 for engaging the said latches for holding the frame in outspread or contracted position.

In the present invention what is known as the crown and the slide ring are substantially identical in construction, each has a pivot flange 13 as shown best in Fig. 3 of the drawings; the flange 13 has a series of perforations 14, and is rigidly mounted or integrally formed with a tubular body 15; the perforations 14 are spaced equidistant from one another and juxtaposed to the perimeter of the flange 13; the side of the perforations 14 are rounded to form bearings for hooks 16, with which the umbrella ribs 17 and the braces 18 are provided.

The slide ring and the crown have each keepers 19 and 20 respectively; the keepers are identical except that the keeper 20, as shown best in Fig. 3 of the drawings, has a groove 21; the edges of both keepers are truncated having formed therein edge openings grooves 22; and grooves 22 are adapted to receive the hooks 16 and pinched portions 23 of the ribs 17 and braces 18 respectively when the said keepers are adjusted in service relation to the said flanges 13.

When assembling the umbrella parts the keepers 19 and 20 are moved backwardly on the body portions 15 of the flanges 13 sufficiently to permit operative to place each of the hooks 16 in the portion 14 assigned to it; to permit this operation the hooks 16 are constructed of spring wire one end whereof, as seen in the drawings, is outturned to form a lip for the loop formed by the spring; the lip or free end of each hook rests against the inner edge of the pinched portion 23, and the opposite end of each hook is rigidly held in the rib or brace with which it is associated by the pinched portion 23 which is mashed or contracted on the wire for this purpose. As shown best in Fig. 1 of the drawings, the pinched portions 23 also serve to guide the ribs 17 and braces 18 when the same swing on the flanges 13 with which they are associated.

The ribs 17 and braces 18 are permanently pivotally connected by the rivets 24, as best shown in Fig. 2 of the drawings the rivets 24 are passed through portions formed in lugs 25 extended through the fillers 26; the fillers 26 are tubular in shape and fit the channels of the ribs 17 snugly; they are held permanently and firmly in the ribs by the indents 27 in the said ribs, said indents being formed by the pinched portions of the sides of the channels of the ribs adjacent to the lugs 25, and between the lugs 25 extend contracted portions 28 of the braces 18.

It is obvious that when the frame is assembled as shown in the drawings, the flange 13 of the crown is made fast to the stick 8 in any well known and suitable manner, so that the frame is ready to receive the umbrella cover 29; the cover 29 is perforated at the apex to pass the ferrule end of the stick 8 and the body 15 of the flange 13. To hold the cover 29 firmly in position the ferrule 30 is perforated with a series of teeth 31, which when forced through the material of the cover firmly engages the ferrule and at the same time is moved slightly toward the body portion 15 of the ferrule 30, thereby eliminating any tendency of the cover material to wrinkle or become slack at this point in the construction.

Claims:

1. An umbrella construction comprising a plurality of pivoted members; a pivot mounting therefor embodying a flange having a series of perforations adjacent the perimeter of said flange; and means for engaging said members with said flange, said means embodying resilient hooks rigidly attached to said members.

2. An umbrella construction comprising a plurality of pivoted members; a pivot mounting therefor embodying a flange having a series of perforations adjacent the perimeter of said flange; means for engaging said members with said flange, said means embodying resilient hooks rigidly attached to said members; and the ends of said hooks being closed upon the adjacent portions of said members.

3. An umbrella construction comprising a plurality of pivoted members; a pivot mounting therefor embodying a flange having a series of perforations adjacent the perimeter of said flange; and means for engaging said members with said flange, said means embodying resilient hooks rigidly attached to said members by contracting the sides of said members upon said hooks.

4. An umbrella construction comprising a plurality of pivoted members; a pivot mounting therefor, embodying a flange having a series of perforations adjacent the perimeter of said flange; means for engaging said members with said flange, said means embodying resilient hooks rigidly attached to said members; the ends of said hooks being closed upon the adjacent portions of said members; and a keeper for said hooks, said keeper being rigidly disposed in relation to said flanges and having slots forming guides for the operation of said members.

5. The combination of a plurality of open channel ribs; a plurality of open channel braces; a plurality of annular flanges, said flanges having perforations formed adjacent the edges thereof to provide solid edge forming pivots for said ribs and braces and the pivotal connections for each of said ribs and one of said braces, said connection embodying a tubular insert snugly fitting the channel of said rib; and having a plurality of exposed hinged lugs enveloping the contracted end of each of said braces, and a pivot pin connecting the contracted end of said braces and said lugs; means pivotally connecting said flanges and said ribs and braces, said means embodying open ended hooks pivotally secured on said ribs and braces and extending through the perforations of said flanges; and a plurality of keepers superposed on said flanges, one of said keepers being adjacent to the center thereof, and cover for said ribs adapted to rest upon the uppermost of said keepers in superposed relation to the groove formed therein, and a ferrule disposed in superposed relation to said cover, said ferrule having a serrated edge for engaging said cloth to gather the same.

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