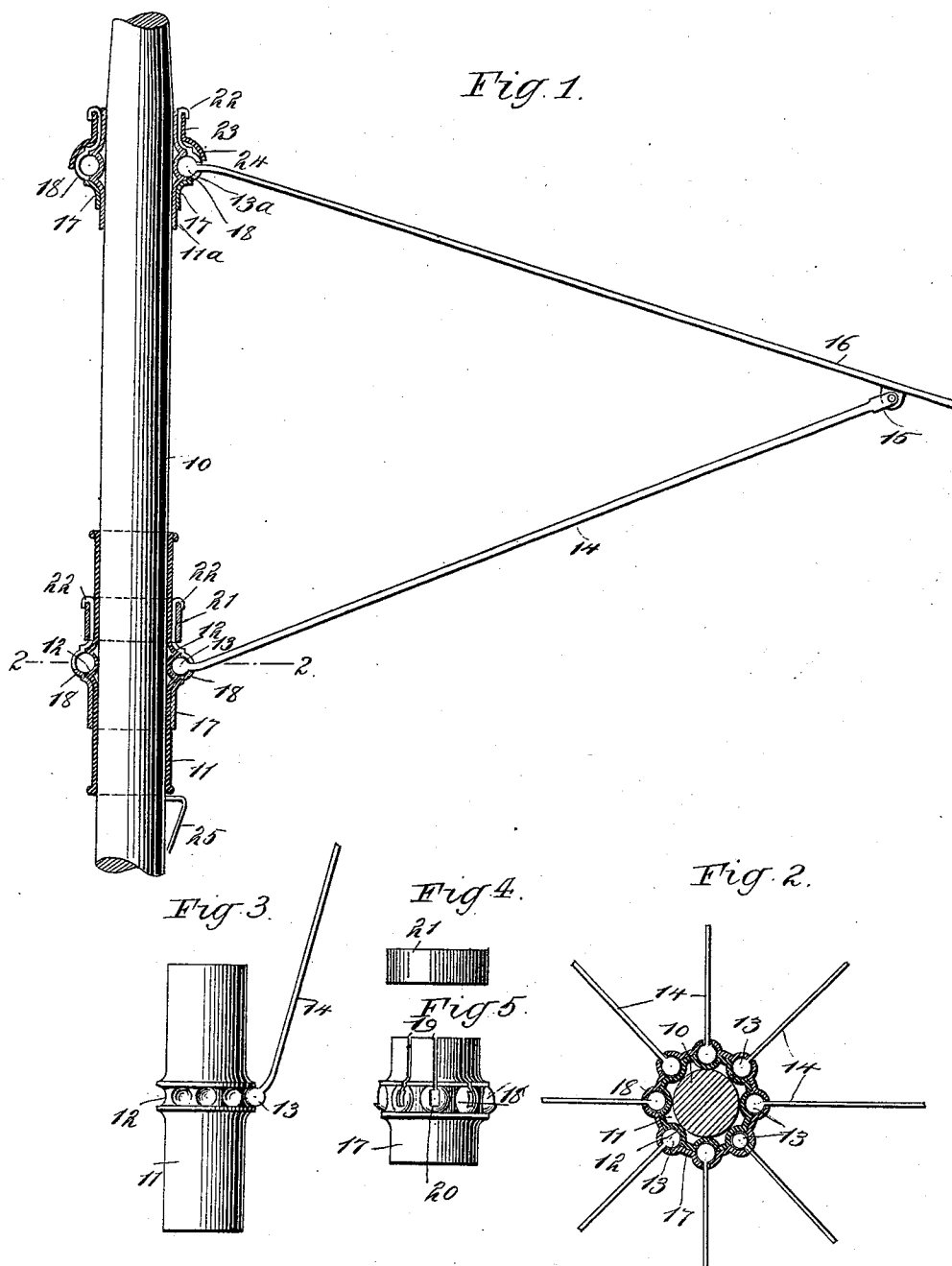


(No Model.)

W. R. TEBOW.
UMBRELLA.

No. 530,805.

Patented Dec. 11, 1894.



WITNESSES:
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WILLIAM R. TEBOW, OF TISKILWA, ILLINOIS.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 530,805, dated December 11, 1894.

Application filed November 1, 1893. Serial No. 489,708. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. TEBOW, of Tiskilwa, in the county of Bureau and State of Illinois, have invented a new and Improved Umbrella, of which the following is a full, clear, and exact description.

My invention relates to improvements in umbrellas and more particularly to those portions of the umbrella frame which connect with the umbrella stick. It is desirable to provide an umbrella with a comparatively large quantity of braces, to the end that the umbrella may be strong and the braces each light, but to accomplish this result it is usually necessary to greatly weaken the joints where the braces and ribs connect with the umbrella stick or else make the joints large, expensive and unsightly.

The object of my invention is to produce a very simple, strong and durable runner, also to improve the construction of the crown piece, to connect the ribs and braces with the crown piece and runner by means of ball joints which enable the said parts to be very easily manipulated, and further, to construct the crown piece and runner in such a way that any brace or rib may be very easily taken out and repaired, also to construct the said crown piece and runner in such a manner that they may be made very small and will have no projecting portions to injure the fingers or tear the umbrella cloth.

A further object of my invention is to produce an umbrella joint that combines strength, lightness and durability, together with a handsome appearance and a capacity to admit of a large number of braces without making the joint large or the braces weak.

To these ends, my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken detail sectional view of the umbrella stick and frame, and shows in detail the construction of the runner and crown piece. Fig. 2 is a sectional plan on the line 2—2 of Fig. 1. Fig. 3 is a detail side elevation of the inside ferrule of the runner, and shows also one of the braces in position on the ferrule. Fig. 4 is a side elevation of the band forming a part of the runner; and Fig. 5 is a side elevation of the outside ferrule of the runner and crown piece.

The umbrella has the usual stick 10 and its runner is made up of three pieces adapted to slide on the stick and form a ball joint connection with the braces, as described presently, the inner portion of the runner consisting of a ferrule 11, which slides on the stick and which is provided with an annular row of sockets 12, pressed in the ferrule and adapted to receive the balls 13, formed on the inner ends of the braces 14, the braces and balls being held in place by the outside ferrule, which will be described below.

The braces 14 connect, at their outer ends as shown at 15, with the ribs 16 which are of the usual kind, except that they have balls 13^a, at their inner ends to connect with the crown piece, as hereinafter described. The balls 13 are held in the sockets 12 by a ferrule 17 which slips on over the ferrule 11 and which has pressed outward, near its central portion, an annular row of sockets 18 adapted to come opposite the sockets 12, and thus complete a series of round sockets to hold the balls 13.

From the sockets 18 to its upper edge the ferrule 17 is split, as shown at 19, the slits being widened opposite the sockets, as shown at 20, to make room for the braces 14. This arrangement of the outer ferrule 17 enables its upper portion to be bent outward at any desired point, so that the balls 13 may be easily slipped into their sockets and the ferrule may then be bent back to shape, thus fastening the balls in place. This enables the balls to be easily inserted in the first place, and afterward, in case any braces become broken, the ball connected therewith may be easily slipped out and another brace and ball substituted.

The upper or split portion of the ferrule 17 is held in place by a band 21, which is slipped on over the top of the ferrule, as shown in Fig. 1, and after this the upper ends of the several members of the ferrule 17 are bent outward over the band, as shown clearly at 22 in Fig. 1, so as to fasten both the band and ferrule in place.

It will be seen from the above description that the runner is composed of but three pieces, comprising the ferrule 11, the outside ferrule 17, and the band 21. The two ferrules and the band 21 are preferably made of seamless tubing pressed and cut to the required shape, as this construction enables the runner to be small and handsome, as well as light and efficient. The runner is held up when moved, by the ordinary spring catch 25. The crown piece is substantially like the runner, having the ferrule 11^a, which is like the ferrule 11, except that it is shorter, and a ferrule 17, like that already described, the two ferrules having the balls 13^a at the inner ends of the ribs 16 held in their sockets, as shown in Fig. 1. Instead of the band 21, however, the crown piece has a cap 23, which is fastened to the outside ferrule in the same way that the band 21 is fastened to the runner ferrule, but the cap is expanded at its lower end, as shown at 24, to enable it to overlap the cover of the umbrella. This construction combines the functions of a cap and crown and saves the expense of making and applying an extra cap.

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

30 1. In umbrella fixtures, the herein described joint for securing the braces or ribs, consisting of an inner ferrule having concave seats intermediate its ends on its exterior face, an outer ferrule surrounding the inner one and

35 formed with concaves in its inner surface intermediate its ends, the said outer ferrule extending in cylindrical form at each end, beyond the concaves thereof, the outer ferrule further having openings leading outward therethrough from the concaves and slits extending from said openings through one cylindrical end to the end edge thereof, and a ring surrounding such cylindrical slitted end, the extreme slitted end being bent outward over the ring, substantially as described. 45

2. In umbrella fixtures, the herein described joint for securing the braces or ribs, consisting of an inner ferrule having concave seats intermediate its ends on its exterior face, an outer ferrule surrounding the inner one and 50 formed with concaves in its inner surface intermediate its ends, the said outer ferrule extending in cylindrical form at each end, beyond the concaves thereof, the outer ferrule further having openings leading outward 55 therethrough from the concaves and slits extending from said openings through one cylindrical end to the end edge thereof and a ring surrounding such cylindrical slitted end, the extreme slitted end being bent outward 60 over the ring, and the ring having its lower end expanded and curved outward and downward, substantially as described.

WM. R. TEBOW.

Witnesses:

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DANIEL ROSS.