(No Model.)

F. MARTIN.

UMBRELLA FIXTURE.

No. 453,934. Patented June 9, 1891.

Fig. 2

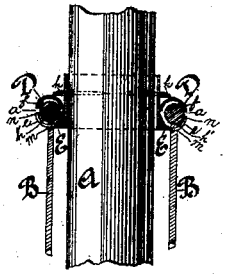


Fig. 1

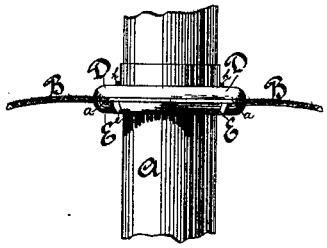


Fig. 4

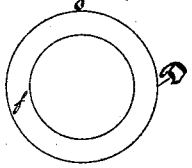
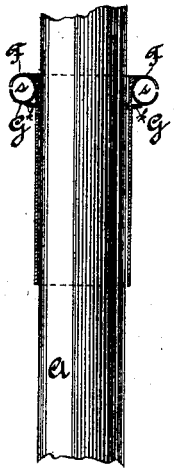


Fig. 3



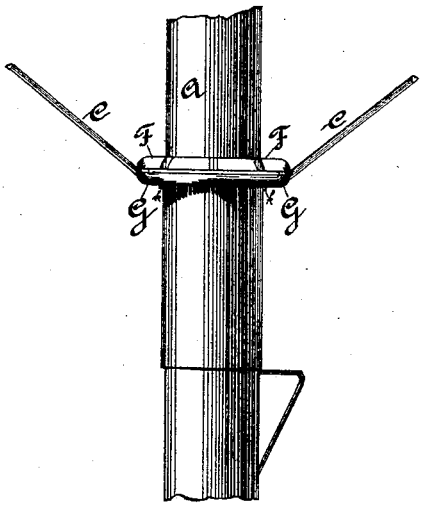


Fig. 5

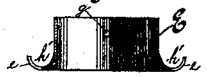
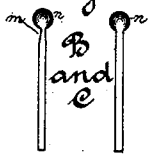


Fig. 6

Fig. 7



WITNESSES:

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UMBRELLA-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 453,934, dated June 9, 1891.

Application filed May 26, 1890. Serial No. 353,269. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN MARTIN, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Umbrella-Fixtures, of which the following is a clear, full, and exact description.

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

Figure 1 of the accompanying drawings is a side view of my invention on the stick. Fig. 2 is a detail view showing the invention in section, with a portion of the stick in elevation. Fig. 3 is a view of the runner in section with portion of the stick elevated. Fig. 4 is a plan view of the inside of the ring. Fig. 5 is a view showing the sleeved flange in section. Fig. 6 is a side elevation of the notch or invention. Fig. 7 is a view of the hinge ends of the ribs and braces.

The object of this invention is an economical and durable construction and freedom of action of the ribs and braces of umbrella, parasol, and sun and storm screens having like folding frames.

The sleeve to suit the hand-hold can be lengthened by tubing being brazed on or otherwise fastened to the sleeve, all substantially for the purpose set forth.

A indicates the stick; B, the ribs; C, the braces of an umbrella. The notch is made in two parts D E. The upper part D consists of a rotary and sliding ring having a groove *f* formed on its inside to partly shape the chamber. The lower part of the notch (designated E,) is a flange terminating in a sleeve having elevated rivet-holes *g*, as shown in Fig. 6 of the drawings, spaced sufficiently above the ring D, when it rests on the flange E, to allow the space *i*, as shown in Fig. 6, to permit the ring D to slide to the rivets *h*, as shown in Figs. 1 and 2, and cause the opening *a* between the ring D and flange E. The flange E has as many notches *e* in its face as require ribs in the frame for the shoulders *m* to track in, and a socket *h'* to complete the formation of the chamber and to securely hold the balls *n* in place. To set up this portion of the umbrella, the balls *n* are placed in the socket *h'*, the shoulders *m* resting in the notches *e*. The ring D is slipped down the sleeve to the flange E, whereupon it is put on the stick B to the required distance from the end, and the rivets *h* securely placed in the stick B, the rivets passing through the holes *g*, leaving the head of the rivet protruding out over the ring D to keep it from slipping off.

Another part of the invention is the runner, constructed quite similar to the notch before described, the only important differences being that the flange F, corresponding with E in the notch, is inverted so that the ring G, corresponding with D in the notch, also inverted, and the rivets *k*, corresponding with *h* in the notch, are inverted and riveted to the inside of the sleeve, as shown in Fig. 3, all the functions operating the same as in the notch, all substantially for the purpose described and set forth.

With this construction of the notch and runner it will be readily seen that in hoisting the frame or opening the umbrella the bearing and wearing of the ribs and braces are against the rings D and G. The rings, sliding to the rivets *h* and *k*, relieve the socket *h'* from wear, while the opening *a* gives freedom of action to the ribs and braces at the shoulders *m* and dispenses with double-notched plates for that purpose. The ring being rotary is made purposely so that it can be rotated to prevent the ribs and braces from wearing it in one continual place in the groove *f*.

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

1. The combination, with the stick and the ribs or braces having balls at their inner ends, of the sleeve on the stick, having an outer flange, and having a semicircular groove and radial slots in the said flange, of the ring mounted on the sleeve to turn freely thereon in each direction, and having an independent longitudinal movement, whereby the ring will turn automatically to present new wearing-places and move longitudinally to prevent binding of the ribs or braces when distending the same, and a stop to limit the longitudinal movement of the said ring on the sleeve, substantially as described.

2. The combination, with the stick and the ribs or braces having balls at their inner ends, of the sleeve having an outer flange, and having a groove and radial slots in the said flange, the ring having an outer flange and a groove in the flange to correspond with the groove in the flange of the said sleeve mounted on the sleeve to turn automatically and have a free longitudinal movement thereon, whereby new wearing-places will be presented and binding between the flanges and the ribs or braces be prevented, and the pin to secure the sleeve on the stick and form a stop to limit the longitudinal movement of the said ring, substantially as described.

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Witnesses:
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