

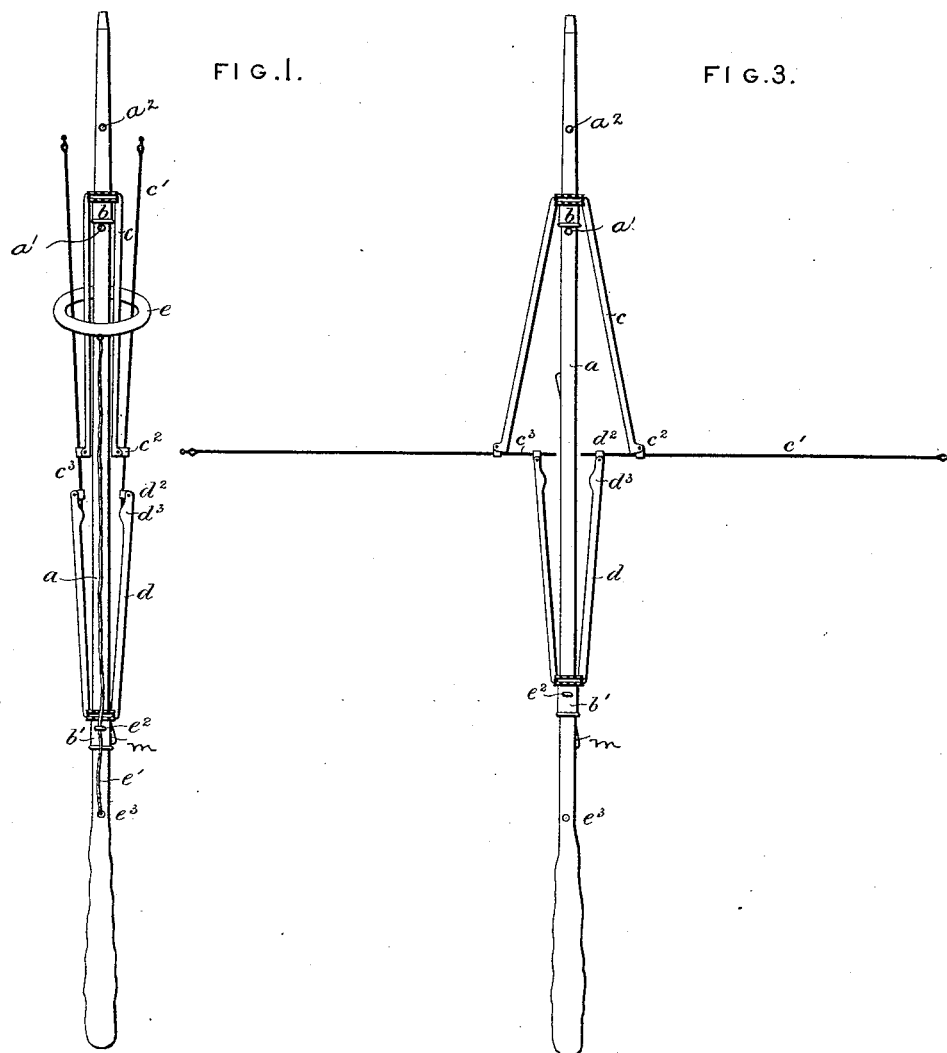
(No Model.)

2 Sheets—Sheet 1.

L. H. PEARCE.
UMBRELLA OR SUNSHADE.

No. 386,260.

Patented July 17, 1888.



WITNESSES:

H. A. Johnston.
Charles H. Searle.

INVENTOR:

L. H. Pearce
By his Attorney
Thomas D. Searle

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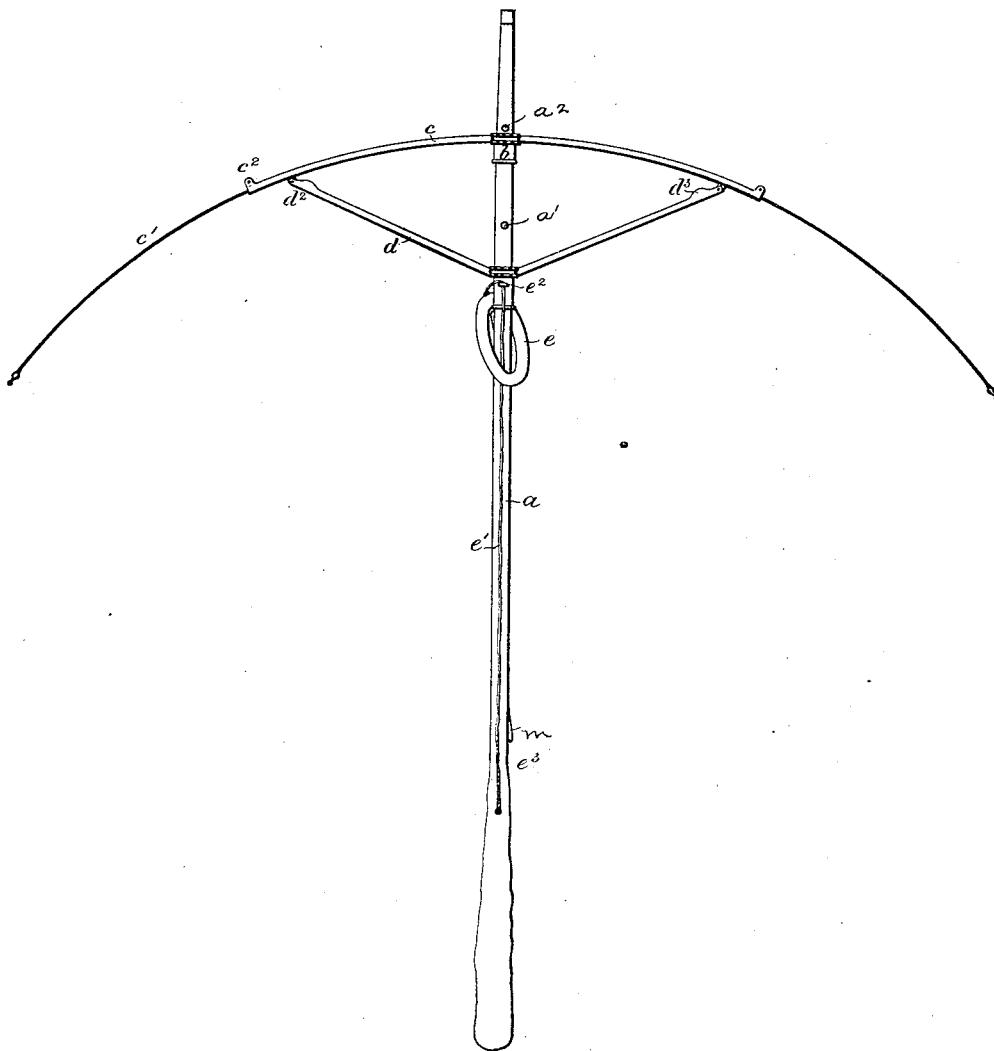
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FIG. 2.



WITNESSES:

H. A. Johnston.
Charles H. Searle.

INVENTOR:

L. H. Pearce.
By his Attorney,
Thomas D. res. Station.

UNITED STATES PATENT OFFICE.

LIONEL HARVEY PEARCE, OF COALBOURNEBROOK, STOURBRIDGE, COUNTY OF WORCESTER, ENGLAND.

UMBRELLA OR SUNSHADE.

SPECIFICATION forming part of Letters Patent No. 386,260, dated July 17, 1888.

Application filed March 8, 1887. Serial No. 230,108. (No model.) Patented in England July 14, 1886, No. 9,168; in France March 2, 1887, No. 181,913; in Belgium March 2, 1887, No. 76,549; in Germany March 2, 1887, No. 41,388; in Italy March 31, 1887, XLII, 163, and in Austria-Hungary August 3, 1887, No. 9,576 and No. 30,433.

To all whom it may concern:

Be it known that I, LIONEL HARVEY PEARCE, a subject of the Queen of Great Britain and Ireland, residing at Coalbournbrook, Stourbridge, in the county of Worcester, England, have invented new and useful Improvements in Umbrellas or Sunshades, (for which I have applied for and obtained Letters Patent in Great Britain, No. 9,168, bearing date July 14, 1886; in France, No. 181,913, bearing date March 2, 1887; in Belgium, No. 76,549, bearing date March 2, 1887; in Italy, No. 163, Vol. XLII, bearing date March 31, 1887; in Austria-Hungary, Nos. 9,576 and 30,433, bearing date August 3, 1887, and in Germany, No. 41,388, bearing date March 2, 1887,) of which the following is a specification.

According to the usual mode of constructing umbrellas the outer extremities of the ribs point upward when the umbrella is closed and used as a walking-stick. These ribs, unless secured by means of a band to the stick, have a tendency to gape apart, and in the case of a sunshade the outer edge of which is ornamented with lace the trimming hangs in the reverse direction, to the detriment of its ornamental appearance.

This invention relates to an improved construction of umbrellas or sunshades which when closed have the outer extremities of the ribs folded toward the point of the stick; and it consists in the details of construction and arrangement of parts hereinafter pointed out in the specification and claims.

In order that my invention and the mode of carrying it into effect may be fully understood I will proceed to describe the same with the aid of the accompanying drawings, whereof—

Figures 1 and 2 represent an umbrella-frame in its closed and open positions, respectively, while in Fig. 3 the various parts of the apparatus are represented in an intermediate position.

The covering, as also the lining, if any, are for the sake of distinctness omitted from the drawings.

On the stick *a*, near its point, slides a socket, *b*, between two stops, *a'* and *a''*, and to which socket the inner extremities of the ribs *c* are attached

in the ordinary manner. The stick is also furnished with a sliding socket, *b'*, of the usual kind, and to which the inner extremities of the struts *d* are attached in the ordinary manner. Each rib consists of two parts—an inner part, *c*, and an outer one, *c'*—these being jointed together about midway of their total length at the point *c''*. The inner part or arm, *c*, is formed of channel metal, such as is usually employed in what are known as "Paragon" frames, while the outer part or arm, *c'*, is formed of cylindrical or other solid wire rod. Each outer arm, *c'*, is provided beyond the pivot *c''* with an extension or tail-piece, *c'''*, to which the outer extremity of the strut-rod *d* is attached.

When the apparatus is in the open position, as represented in Fig. 2, the tail-piece *c'''* is housed within the trough of the channel metal of which the inner arm *c* is composed, rigidity in a longitudinal direction being thereby afforded to the rib.

The umbrella or sunshade when open, as shown in Fig. 2, presents the ordinary appearance. The action during the process of closing is as follows: The inner arms, *c*, of the ribs, pivoted upon the upper socket, *b*, fold against the stick *a* in the usual manner. The outer arms, *c'*, of the ribs, turning on the pivot *c''*, fold in the reverse direction and close upon the inner arms *c*, as indicated in Fig. 1, the struts *d* becoming tension-rods, and serving to turn the arms *c'* about their pivots *c''* in the manner described. The tail-piece *c'''* extends beyond the point, *d''*, at which the rod *d* is connected, and is arranged to lie against that rod and between the cheeks, *d''*, formed thereon. This construction affords longitudinal rigidity between the parts *d* and *c'* when the apparatus is closed.

In an umbrella or sunshade constructed as hereinbefore described, when the apparatus is open the cover is outward; but when closed the lining (which may be of an ornamental character) is exposed, the cover being meanwhile protected from wear. When closed, the folds of the fabric may be neatly secured by means of a band, or in any known manner. For this purpose I employ, however, the following means, the same being more particularly appropriate for ladies' parasols: An ivory or other ring, *e*,

circlet of beads, or equivalent device suitable for inclosing the folds of the fabric when the apparatus is closed, is attached to the stick *a* by means of a cord, *e'*, which passes through an eye, *e²*, upon the sliding socket or ferrule *b'*, and is secured at a point, *e³*, toward the handle and beyond the extreme position of the sliding socket or ferrule *b'*. When the parasol is closed, the retaining-ring *e* encircles the frame and covering, being easily moved up to position.

When it is desired to open the parasol, the ring *e* is drawn toward the handle. The ribs being now released from the retaining-ring, the sliding socket *b'* may be raised and the parasol fully extended, the eye *e²* slipping on the cord *e'*, and finally carrying the ring *e* to a position within the dome of the parasol, as indicated in Fig. 2. In the reverse operation of closing the parasol the retaining-ring falls or is drawn against the hand grasping the handle, and upon the ferrule or opposite end of the stick being turned downward the retaining-ring slips down outside the fabric, the folds whereof it neatly embraces. The upper socket *b* is allowed to slide a short distance on the stick *a* toward the handle until it meets the stop *a'* during the operation of closing. This allows the frame and cover when in the closed position to be nearer the handle than it would otherwise remain and allows the tip or upper end to protrude, as shown in Fig. 1, allowing the umbrella to be used, if desired, as a cane. The catch *m*, for holding the umbrella in the closed position, must of course be located correspondingly nearer the handle than would be necessary if such sliding motion of the socket *b* were not allowed.

Upon commencing to open the apparatus the upper socket *b* slides along the stick away from the handle until it meets the stop *a'*, with which the stick is there provided, the extension of the ribs thereupon ensuing.

Instead of forming the cheeks *d³* on the struts *d'*, it will be obvious that the tail-piece *e³* may be provided with projections suitable for engaging with the strut *d*, or with the inner arm, *e*, of the rib, or with each of those parts respectively.

The channel form of the rib *c* effects two functions: first, increases the strength and stiffness of the rib with a given quantity of material, and, second, receiving the inner portion *c'* within its channel when the device is extended, and thus stiffening the rib laterally.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An umbrella or sunshade having its ribs formed each in two parts hinged together and arranged to fold in opposite directions, one part being of channel-steel receiving the other part when extended, substantially as described.

2. In combination with an umbrella or sunshade having the ribs jointed and arranged to fold toward the point of the stick, the ring *e*, attached by means of a cord passing through an eye on the sliding socket and fastened to the stick, so that the said ring may be easily applied from below to surround the body of the fabric near the top when the apparatus is closed, and is automatically carried up into the dome thereof when the same is opened.

LIONEL HARVEY PEARCE.

Witnesses:

DANIEL PEARCE,

CHARLES WILLIAM ROBINSON.