

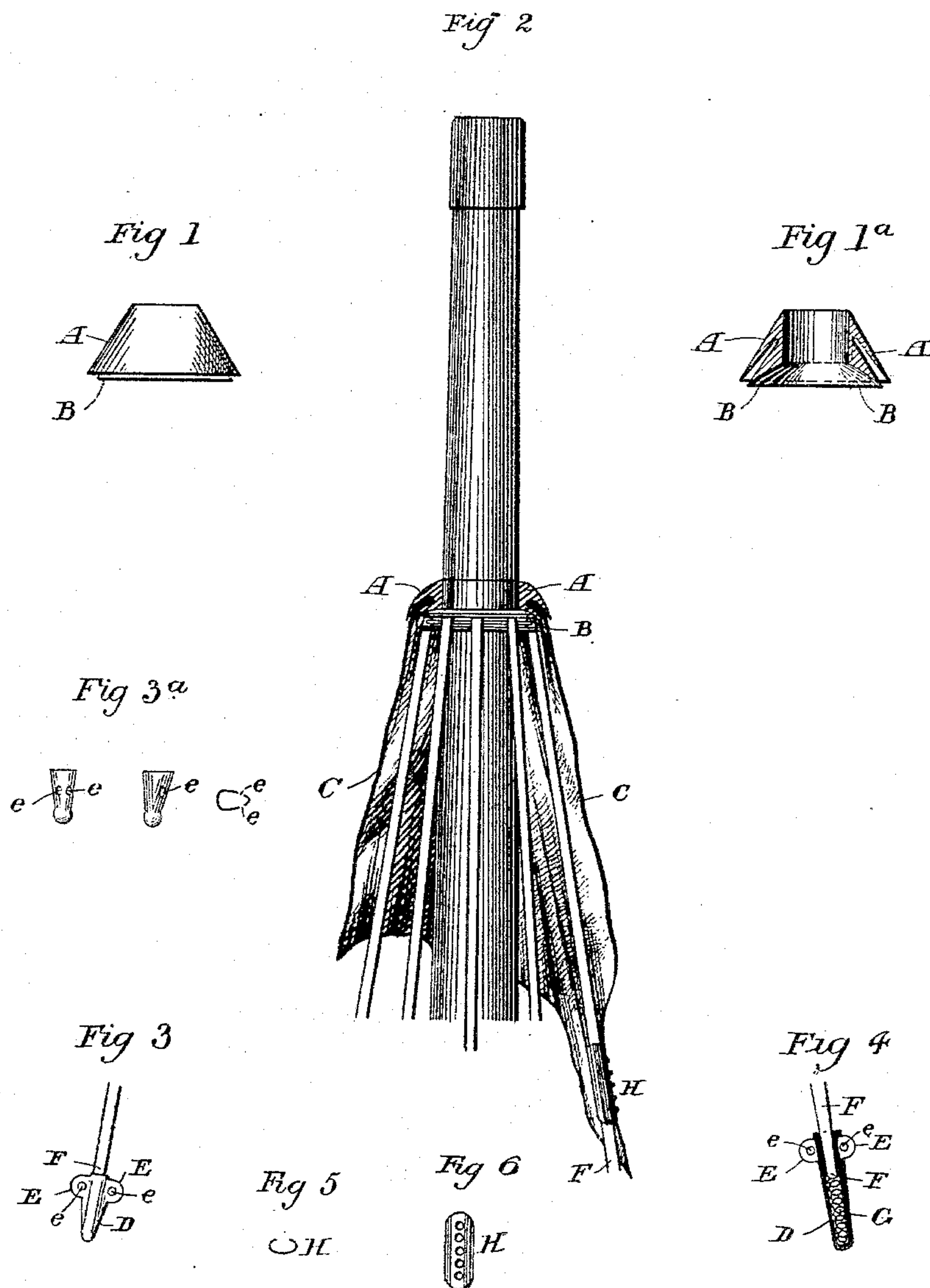
(No Model.)

T. WRENCH.

UMBRELLA, PARASOL, OR SUNSHADE.

No. 323,381.

Patented July 28, 1885.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS WRENCH, OF LIVERPOOL, COUNTY OF LANCASTER, ENGLAND.

UMBRELLA, PARASOL, OR SUNSHADE.

SPECIFICATION forming part of Letters Patent No. 323,381, dated July 28, 1885.

Application filed May 6, 1884. (No model.) Patented in England September 5, 1883, No. 4,271; in France March 5, 1884, No. 160,740; in Belgium March 11, 1884, No. 64,471, and in Germany March 13, 1884, No. 28,803.

To all whom it may concern:

Be it known that I, THOMAS WRENCH, a subject of the Queen of Great Britain, residing at Liverpool, in the county of Lancaster, England, have invented certain new and useful Improvements in Umbrellas, Parasols, or Sunshades, (for which I have received Letters Patent in England, dated September 5, 1883, No. 4,271,) of which the following is a specification.

In umbrellas as at present constructed the cover is sewed round the stick just above the ring to which the ribs are pivoted. Notwithstanding the cloth washer and the occasional padding placed between the cover and the ring, the angular and hard nature of the ring causes the cover to project in passing round it, and to rapidly wear at this point. There being no place to sew the cover round except the bare stick end, it is sewed round that part and a cap riveted on. When a rib breaks or the wire rusts out, the cap has to be broken off and the cover ripped up to get at the fracture. If the cover has to be renewed, it requires a skilled workman to replace it with another. The latter has to be sewed to the ribs at the ends, and this sewing is apt to come undone and a rib to project.

Now, my invention is designed to avoid these evils and supply a cover that can almost immediately be removed and reapplied by any novice. It is best described by aid of the accompanying drawings, in which—

Figures 1 and 1^a show the double cones hereinafter described; Fig. 2, section of top of umbrella; Fig. 3, caps shown in position on wires; Fig. 4, separate view of cap with long socket containing coiled spring; Fig. 5, section of spring-clip; Fig. 6, front view of same.

The two hollow truncated cones are of rubber, joined at the upper end, the outer one, A, Fig. 1, having preferably an obtuser angle and larger diameter than the inner one, B. In the conical hollow space between these cones the cover C is sewed, one cone being outside, the other inside, the cover. The double cone is opened, compressed, and placed round the cover after the cover is completed, and a narrow hole left therein for the stick and cones. The cones fit onto the stick, and form a protection for the cover at its most wearable part,

both inside and out. The outer or inner cone, or both, can be perforated to let out any water that may percolate into it. The rubber acts instead of the metal cap, and, being elastic, can be made to protect the cover to a greater depth, and there being no riveting, the cover, with rubber cap attached, can be detached from the outer ends of ribs and instantly removed from the frame, and of course reapplied with far greater celerity than in the case of the ordinary construction. Sometimes I unite

the two cones and the cover with india-rubber solution, so as to form a solid piece, and pierce holes through the whole for water to escape.

To fasten the cover to the stick, I use a series of thimbles or hollow points, D, Fig. 3, having side eyes, E, projecting therefrom, to which the cloth C is sewed; or the hollow points D may be made in the form shown in Fig. 3^a, with a hole, e, punched therein for the sewing-threads to pass through. To attach the cloth cover, these caps after being sewed in place on the cover are simply slid on the ends F of the ribs, which have been sprung back momentarily for the purpose, and which are also made destitute of or deprived of the usual terminal knobs. The cover is further attached to the ribs by a series of thin clips made of spring-steel, (shown in Figs. 5 and 6, and in place at H, Fig. 2.) These are sewed onto the cover and sprung onto the ribs. In place of these, ribbons or strings could be attached to the cover and tied over the ribs, but the spring-clips look the best. With the use of these spring-clips the rubber caps, and the hollow tips, a cover can be changed in a minute, or thereabout, and consequently a person can make one stick and ribs do for a silk cover for state occasions, an alpaca cover for ordinary wear, and a white cotton or silk cover for a sunshade. The terminals, too, for the ribs can be made highly ornamental, and of any desired material; but for common use I stamp them out of metal as hollow cones. The said cones are pressed round a mandrel, like a rib end in shape, and a hole, e, is punched (by means of punchers on the stamp, or otherwise,) therein, through which the thread is passed for use in attaching them to the umbrella-cover. The cap or thimble D is then complete.

I sometimes have the sockets very long, as shown in Fig. 4, and place a coiled spring, G, in them. This allows the rib ordinarily to project into them only a short distance, and yet the cloth remains tight. If an extra strain comes on the cloth, the latter, instead of giving way, obliges the ribs to enter the socket, further compressing the spring. This will be found very useful in the newer sort of umbrellas, where there are no spring-detents on the stick, but a constant strain is placed on the cloth.

I am aware that leather and rubber washers or flaps have been interposed between the notch and the cover to protect the cover from wear at this point; but such only partially serve their purpose, whereas the rubber cone of my invention relieves the cover entirely from chafing and wear at and about the notch.

I claim as my invention—

1. In combination with the cover of an um-

brella and the umbrella-stick, a double cone of india-rubber, substantially as described, adapted to fit around the stick and to receive the top of the cover between its two cones. 25

2. The combination of the cap or socket D, fixed to the cover, the rib F, and the spring G, by which means any sudden strain on the cover is taken by the spring, instead of falling upon the sewing thread attaching the rib or tip to the cover. 30

3. The combination of the cover with the caps D, spring-clips H, and elastic collar A B, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 35

THOMAS WRENCH.

Witnesses:

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