

(No Model.)

2 Sheets—Sheet 1.

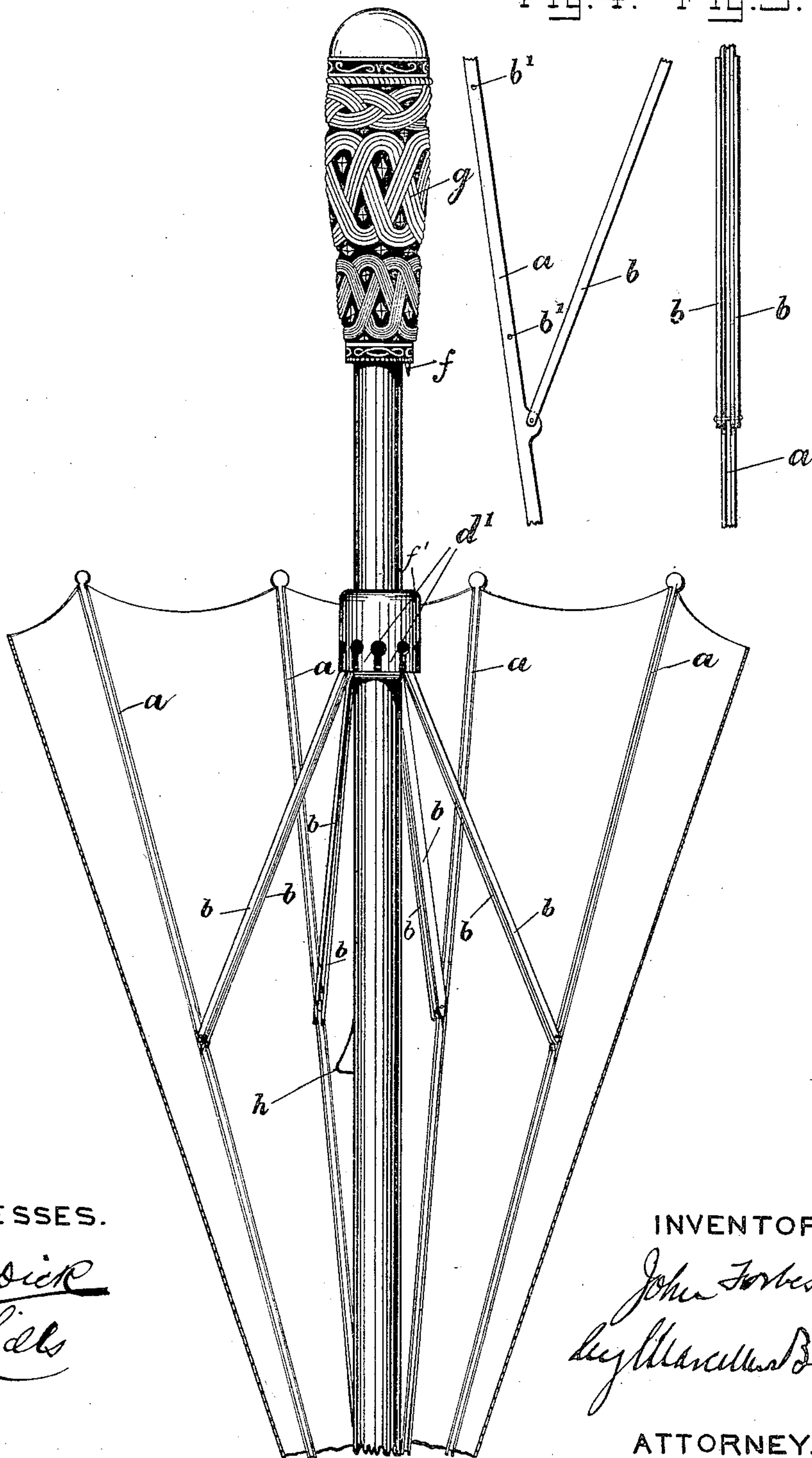
J. FORBES.  
UMBRELLA RIB RETAINER.

No. 529,255.

Patented Nov. 13, 1894.

Fig. 1.

Fig. 4. Fig. 5.



WITNESSES.

*Edw. Dick*  
*L. C. Kels*

INVENTOR.

*John Forbes*  
*Wm. M. Bailey*

ATTORNEY.

(No Model.)

2 Sheets—Sheet 2.

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No. 529,255.

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Fig.2.

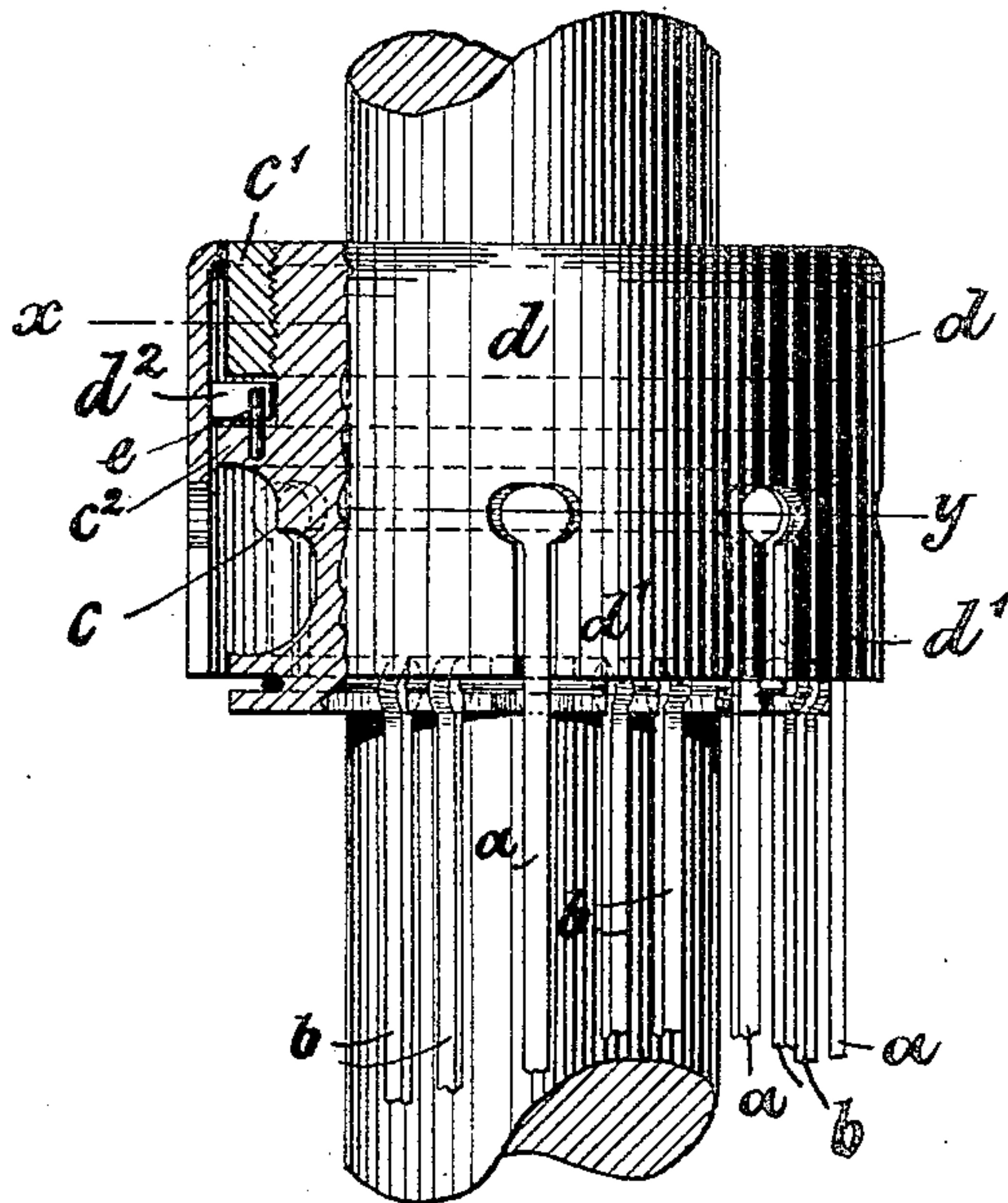
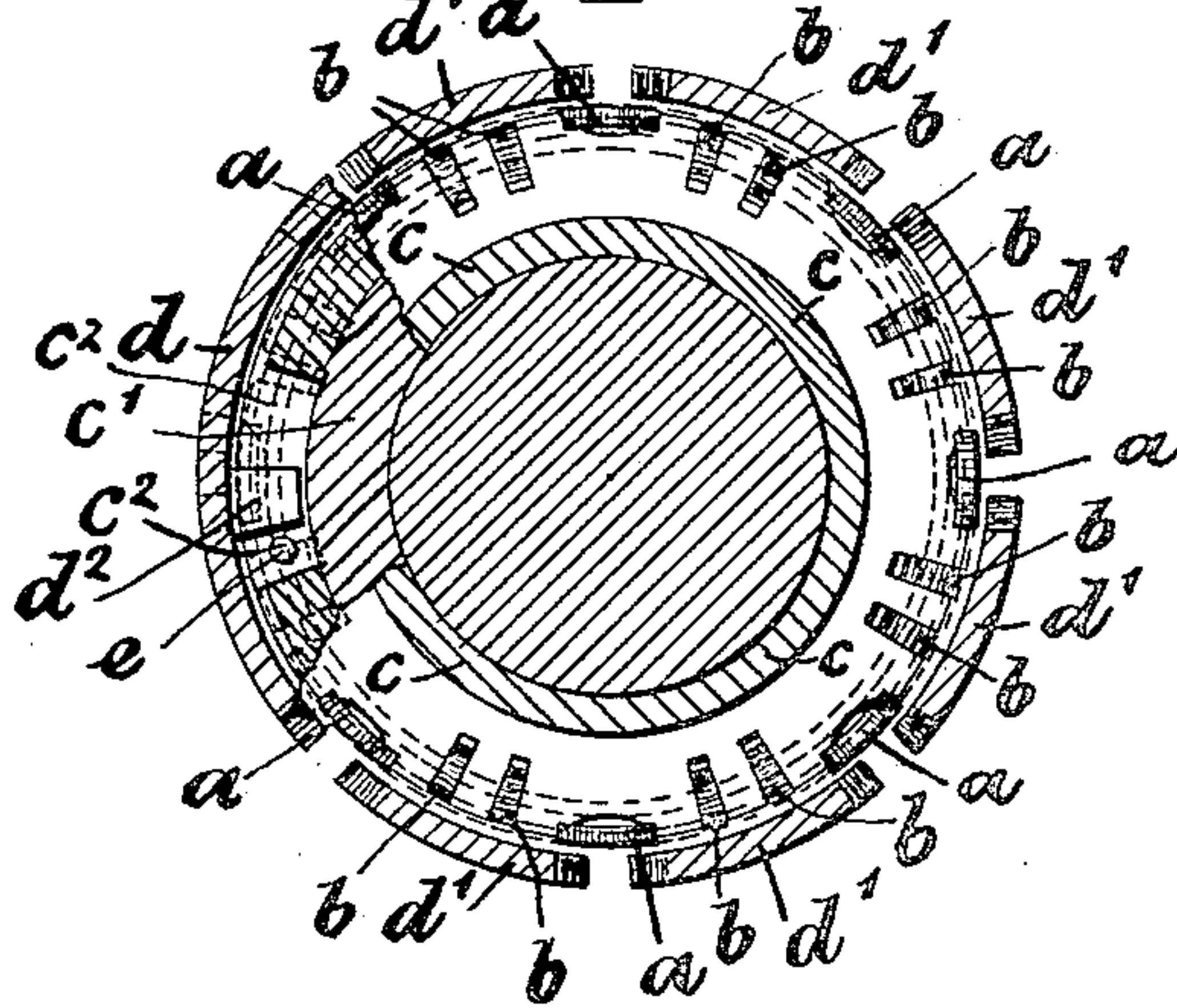


Fig.3.



WITNESSES.

O. H. Fowler.  
Theo. Mungen.

INVENTOR.

John Forbes by  
Marcellus Bailey  
his ATTORNEY.



# UNITED STATES PATENT OFFICE.

JOHN FORBES, OF LONDON, ENGLAND.

## UMBRELLA-RIB RETAINER.

SPECIFICATION forming part of Letters Patent No. 529,255, dated November 13, 1894.

Application filed September 4, 1893. Serial No. 484,693. (No model.) Patented in England November 24, 1892, No. 21,449.

*To all whom it may concern:*

Be it known that I, JOHN FORBES, clerk, a subject of the Queen of Great Britain, residing at 11 Harrington Square, in the county of Middlesex, England, have invented a new and useful Improvement in Umbrellas, Parasols, and Like Sunshades, (the same having been patented in Great Britain November 24, 1892, No. 21,449,) of which the following is a specification.

This invention relates to improvements in umbrellas, parasols, and like sunshades, its chief object being to allow the ribs to lie compact and close to the stick.

In carrying this invention into practical effect I construct the ribs of the ordinary paragon type. A pair of stretchers is employed with each rib, one upon each side instead of one as has hitherto been the case. These stretchers are made of such a length that the runner by which they are worked may be utilized for securing the points of the ribs when the umbrella is closed. The cover of the umbrella is secured to the ribs by means of stitches passing through small holes made in the ribs. The runner is radially notched or recessed to receive the points of the ribs so that they may lie closer to the stick, and is provided with a tubular casing or ring arranged to turn freely upon the same. This casing, which may be ornamented in any suitable way, is slotted at its lower end on lines parallel with the stick, thereby dividing this part of the casing into a number of partially separated portions, which are arranged at such distance apart that they may lie one over each of the ends of the ribs when the umbrella is closed so that they may retain them in position. The casing is prevented from moving longitudinally on the runner by means of an internal collar or projecting rib thereon held between two collars on the runner one of the latter being screwed on to the upper end of the runner after the casing has been placed in position. In the lower or fixed collar on the runner is secured one end of an upwardly projecting pin, the upper end of which projects into a slot formed by a part of the internal rib or collar on the casing being cut away, thus limiting the rotary movement of the casing. To liberate the ribs when

it is desired to open the umbrella, it is only necessary to rotate this casing so as to bring the slotted parts of the casing over the ribs as will be well understood.

A projecting lug is secured to the bottom of the handle and fits into a recess in the runner when the umbrella is closed so preventing the latter from revolving when the casing is rotated.

The umbrella stick is provided with a spring bolt for locking the runner in position, when the umbrella is open.

In order that my invention may be more readily understood and carried into practice I will now proceed to describe the same with reference to the accompanying drawings, of which—

Figure 1 is a sectional elevation of an umbrella constructed according to my invention; Fig. 2, an enlarged elevation, partly in section of the runner; Fig. 3, a section of Fig. 2 on line  $x-y$ ; Figs. 4 and 5, a side and front elevation respectively of part of a rib and double stretcher.

The ribs  $a$  (Figs 1, 3 and 5) of the umbrella are of the ordinary paragon type, and a pair of stretchers  $b$  is employed with each of the ribs, to which ribs the cover of the umbrella is secured by stitches passed through the holes  $b'$  (Fig. 4) in said ribs, said stretchers being lengthened sufficiently to allow of the runner by which they are operated being utilized for securing the points of the ribs when the umbrella is closed.

The runner  $c$  is radially notched as shown in Fig. 2 to receive the points of the ribs  $a$  and is provided with a tubular casing  $d$ , arranged to turn thereon, the said casing being, at its inner end, slotted in the direction of the length of the stick so as to divide this end of the casing into a number of partially separated portions  $d'$ . These portions are arranged at such a distance apart that they may lie one over each of the ends of the ribs  $a$  when the umbrella is closed, thereby retaining them in position. The casing  $d$  is prevented from moving longitudinally on the runner by means of an internal collar or projecting rib  $d^2$  thereon held between two collars  $c'$ ,  $c^2$  on the runner, the collar  $c'$ , being screwed on to the upper end of the runner after the casing



has been placed in position. In the collar  $c^2$  is secured one end of an upwardly projecting pin  $e$ , (Figs. 2 and 3,) the upper end of which projects into a slot formed by a part of the collar  $d^2$  being cut away thus limiting the rotary movement of the casing.

To liberate the ribs when it is desired to open the umbrella it is only necessary to rotate the casing so as to bring the teeth  $d'$  between the ends of the ribs  $a$ . A lug  $f$  is secured to the bottom of the handle  $g$  which is here ornamented with a Celtic pattern, and fits into a recess  $f'$  (Fig. 1) in the runner  $c$  when the umbrella is closed so preventing the latter from revolving when the casing  $d$  is revolved.

The umbrella is provided with a spring bolt  $h$  for locking the runner in position when the umbrella is open.

What I claim is—

1. The rib retainer consisting of a partially rotatable tubular casing or ring slotted to form spaces into which the upper parts of the ribs enter when the umbrella is closed, and provided with a slotted internal collar or projecting rib, in combination with the runner

placed inside the rib retainer, and radially notched to receive the points of the ribs, and provided with two collars  $c'$  and  $c^2$ , and an upwardly projecting pin  $e$  extending into the slot in the said internal collar or projection, substantially as set forth.

2. In an umbrella or similar article, the rib retainer consisting of a rotatable tubular case or ring slotted to form spaces into which the upper parts of the ribs enter when the umbrella is closed up, and provided with an internal collar or projecting rib, in combination with the runner arranged inside the rib retainer and to which the stretchers are secured, and radially notched to receive the points of the ribs, and provided with the collars  $c'$  and  $c^2$  arranged on opposite sides of the said collar or rib in the rib retainer, whereby the runner and rib retainer are prevented from separating, substantially as described.

JOHN FORBES.

Witnesses:

FRED. J. BINGHAM,  
54 Fleet St., London E. C.

THOMAS LAKE,  
17 Gracechurch St., London, Notary's Clerk.