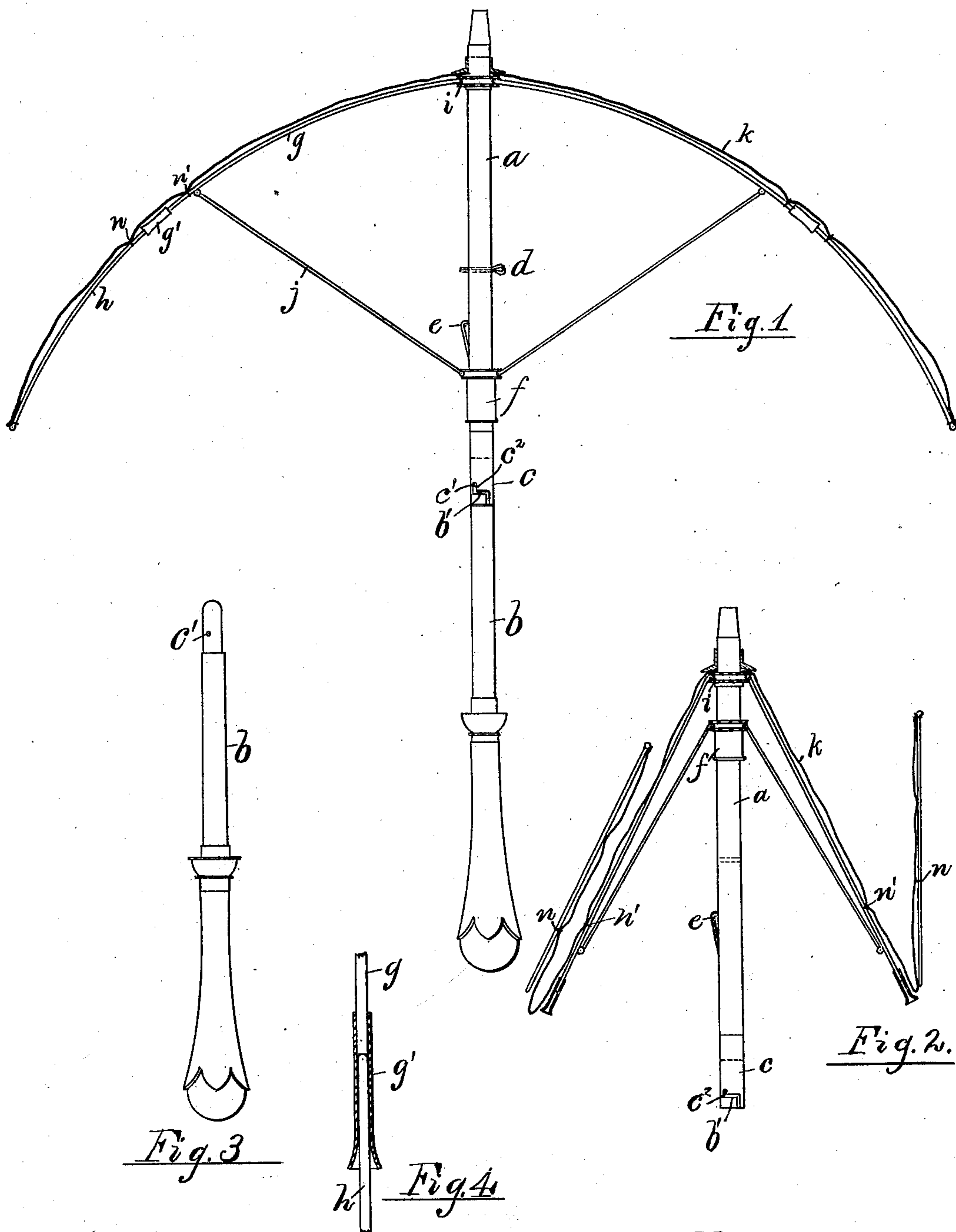


(No Model.)

F. LECRAFT.
FOLDING UMBRELLA.

No. 360,966.

Patented Apr. 12, 1887.



Attest:
L. L. Lee.
Thos S. Coane

Inventor.
Frederick L. L. Lee, per
Carr & Miller, attys.

UNITED STATES PATENT OFFICE.

FREDERICK LECRAFT, OF JERSEY CITY, NEW JERSEY.

FOLDING UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 360,966, dated April 12, 1887.

Application filed November 23, 1886. Serial No. 219,647. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK LECRAFT, a citizen of the United States, residing at Jersey City, Hudson county, New Jersey, have invented certain new and useful Improvements in Folding Umbrellas, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This invention relates to a construction by which the handle and ribs of an umbrella may be folded within a small space to be readily packed in a trunk or valise; and it consists in an improved construction for the ribs, for the
15 handle, and for the stop upon the handle.

The invention will be understood by reference to the drawings, in which—

Figure 1 is a view of the complete umbrella nearly opened, with the cover and ribs upon
20 the nearer side of the handle removed to expose the remaining parts. Fig. 2 is a view of the upper part of the stick, with the braces reversed by shifting the runner above the adjustable stop, and the lower rib-sections removed from their sockets and bent upward to
25 fold the lower half of the cover against the outer side of the upper half. Fig. 3 is a view of the lower half the stick detached from the upper; and Fig. 4 is a view of the rib-joint,
30 upon a larger scale, with the socket in section.

The stick is formed with a head-piece, *a*, and a handle-piece, *b*, coupled together by a tubular socket, *c*, and a pin, *c'*, projected from the side of the piece *b* and fitted within a slot
35 forming a bayonet-lock, *b'*, in the socket *c*.

The bayonet-lock differs from the ordinary construction in possessing, in addition to the ordinary longitudinal and transverse slot, a longitudinal notch, *c''*, formed at the inner end
40 of the transverse slot to prevent the pin from shifting laterally in the transverse slot when the handle-piece is accidentally twisted.

The stop *d* is removable and is formed by inserting a pin or a split key through the stick above the upper spring, *e*. The runner *f* is
45 shown below the said spring in Fig. 1 to fully expose the spring and stop to view; but when the umbrella-top is fully spread the runner would be forced above the spring, in contact
50 with the stop, in the usual manner.

The umbrella-ribs are formed in two parts,

g and *h*, the parts *g* being pivoted to the notch-piece *i* and the braces *j*, in the usual manner, and being provided at their lower ends with tubular sockets *g'* to receive the upper ends of the
55 parts *h*.

The sockets are formed with flaring mouth to readily admit the ends of the parts *h*, and the umbrella-cover *k* is stitched to the ribs, not only at their tips in the usual manner, but
60 at points *n n'* at each end of the sockets *g'*. The cover thus operates effectively to hold the parts *h* in the sockets *g'* when the cover is distended; but when the cover is relaxed the ribs may be shortened by pulling the parts *h* out of
65 the sockets *g'*.

By withdrawing the stop-pin *d* from the head-piece *a* the runner may be slid up to the top notch, *i*, inside the rib parts *g*, and the lower halves of the ribs may then be turned
70 upward, as shown in Fig. 2, and folded with the lower part of the cover outside of the upper part.

By the removal of the stop-pin *d*, the runner and the braces are thus inclosed entirely
75 within the upper parts of the ribs, while the folding of their lower parts outside of the same and the removal of the handle-piece *b* from the socket *c* reduce the length of the umbrella in the desired manner.
80

The sockets *g'* may be made of brass, tin, or other metal, bent or stamped to the required form, and may be secured upon the lower ends of the ribs *g* by solder or by pressing the same thereon with suitable tools. The ribs, being
85 usually made of the same size, it is obvious that the open end of the socket would be formed large enough to readily withdraw the part *h*, while the other end of the socket would be fitted tightly to the part *h* of the rib.
90

I am aware that it is not new to divide the handle of an umbrella-stick in a different manner from mine, or to hinge the ribs in such way as to fold them into a smaller compass. I do not therefore claim, broadly, the shortening of the stick or the ribs for the purpose described; but,
95

Having set forth the nature and object of my construction, what I claim as my invention is—
100

1. The valise or trunk umbrella consisting in the stick formed with head-piece *a*, handle-

piece *b*, and tubular socket *c*, and the removable stop-pin *d*, the ribs constructed with parts *g* and *h*, united by the tubular socket *g'*, and the cover stitched to the ribs adjacent to the
5 socket, the whole arranged and operated as and for the purpose set forth.

2. The valise or trunk umbrella consisting in the stick formed with head-piece *a*, handle-piece *b*, and tubular socket *c*, having the bayonet-lock *b'*, provided with longitudinal notch
10 *c'*, and the removable stop-pin *d*, the ribs constructed with the parts *g* and *h*, united by the

tubular socket *g'*, and the cover stitched to the ribs adjacent to the socket, the whole arranged and operated substantially as herein set forth. 15

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDERICK ^{his} X LECRAFT.
mark.

Witnesses:

HENRY J. MILLER,
THOS. S. CRANE.