

No. 750,631.

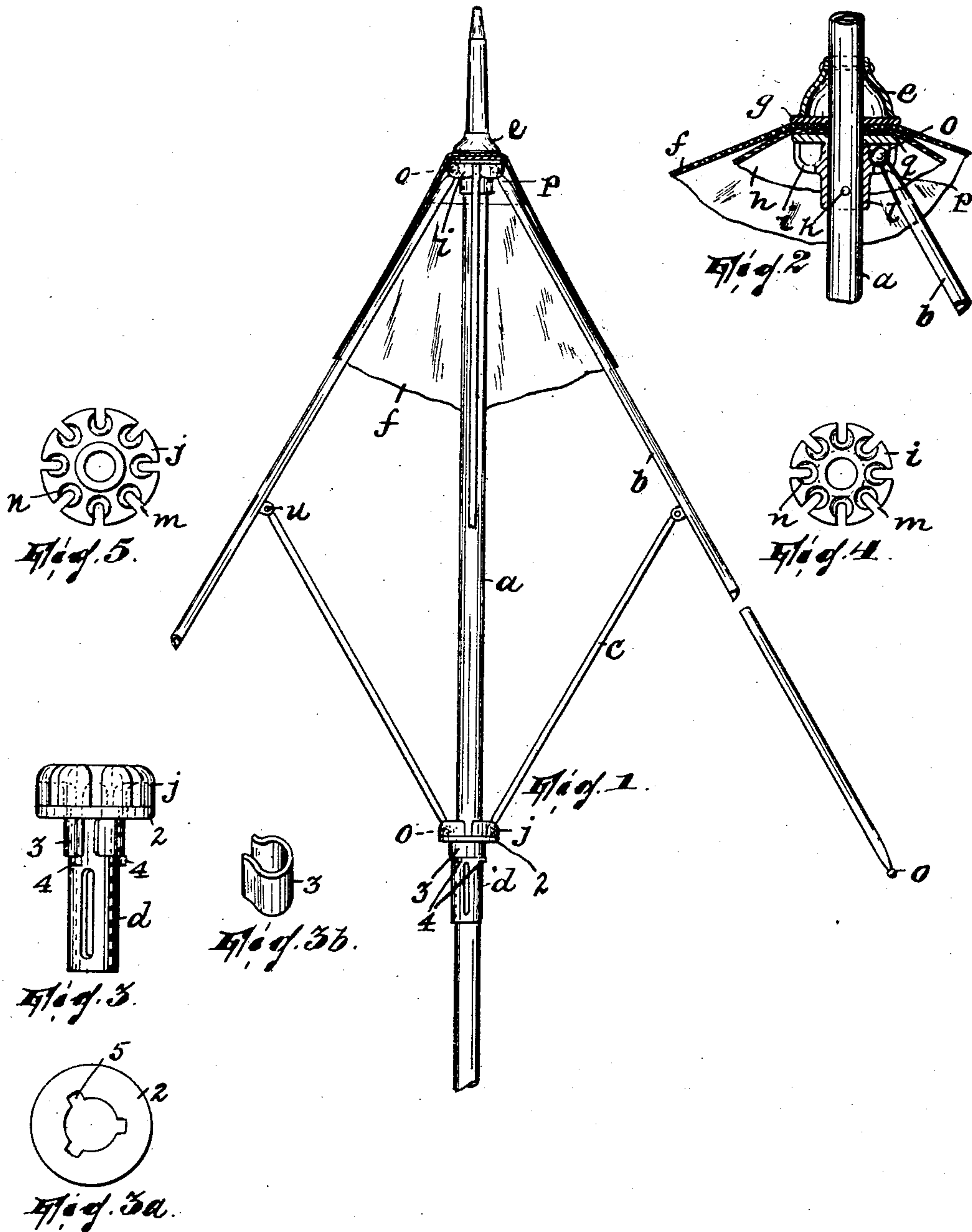
PATENTED JAN. 26, 1904.

A. FIELDHOUSE.

UMBRELLA.

APPLICATION FILED OCT. 24, 1903.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALFRED FIELDHOUSE, OF PATERSON, NEW JERSEY.

UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 750,631, dated January 26, 1904.

Application filed October 24, 1903. Serial No. 178,405. (No model.)

To all whom it may concern:

Be it known that I, ALFRED FIELDHOUSE, a citizen of the United States, residing in Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Umbrellas; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates to umbrellas or parasols; and it consists in certain improvements having for their object to simplify and render more durable the construction and facilitate the taking apart and assembling of the various elements for repairs, &c. In carrying out the aforementioned objects I use the ball-and-socket connection for the joints between the stretchers and runner and the staff and ribs.

By using the ball-and-socket connection between the ribs and staff both ends of each rib may be made substantially alike, so that in case of breaking or wear the ribs may be reversed.

My invention will be found fully illustrated in the accompanying drawings, wherein—

Figure 1 shows an umbrella-frame in side elevation with certain parts removed and with a portion of the cover attached. Fig. 2 is an enlarged detail view showing the manner of pivoting the ribs to the stick. Figs. 3, 3^a, and 3^b are detail views showing the manner of connecting the stretchers and the runner; and Figs. 4 and 5 are top plan and underneath views, respectively, of certain annuli hereinafter described.

In the drawings, *a* is the stick; *b*, the ribs; *c*, the stretchers; *d*, the runner; *e*, the thimble, riveted or otherwise secured rigidly to the stick in any suitable manner; *f*, the cover; *g*, the usual leather washer under the thimble; and *h* the usual fabric-protecting piece penetrated by the stick and laid against the under side of the cover.

i and *j* are two metallic annuli. Annulus

i is secured fast to the stick up close to the fabric piece *h*, as by a rivet *k*, which penetrates a tubular projection *l*, forming an integral part of the annulus. Annulus *j* forms the head or top of the runner *d*. Each of these annuli is formed with radial saw cuts or slits *m*, extending inwardly from its periphery. In the top surface of the annulus *i* and the bottom surface of the annulus *j* is formed a series of circular recesses *n*, registering with the saw-cuts *m*. Thus in each annulus is formed a series of sockets. These sockets are adapted to receive the ends of the ribs *b* and stretchers *c* and to form therewith ball-and-socket joints, for which purpose the ends of said ribs and stretchers are formed as balls *o*. Preferably both ends of each rib are identical in form, so that the ribs may be reversible. The ball on each rib is directly received by the recess *n* of the corresponding socket, and the adjoining portion or shank *p* of the rib has play in the slit *m* of said socket.

The top surface of the annulus *i* and the bottom surface of the annulus *j* are in each instance plane. Against the top surface of annulus *i* takes a metallic disk *q*, which is interposed between the annulus and the fabric piece *h*. Against the bottom of the annulus *j* takes a disk 2, which is held up against the annulus by an elastic metallic clip 3, consisting of an annular split band interposed between the disk and lugs 4, forming an abutment on the runner *d*, said disk having interior recesses 5, permitting the disk to pass the lugs in assembling the parts. Thus are the joints between the stick and the ribs and stretchers and the runner formed.

The joints between the stretchers and the ribs may be of ordinary form, as at *u*, Fig. 1.

Should it be necessary to take the umbrella apart at the connection between the ribs and staff, this can be done either by loosening the thimble, so that upon the removal thereof and of parts *f*, *g*, *h*, and *q* the ribs may be dislocated, or by removing the rivet *k*, so that annulus *i* may be slid down on the staff *e* to dislocate the ribs. Since the thimble and annulus *i*, which hold the parts interposed between them in place, have independent securing means, it is a matter of considerable con-

venience that on that account the parts can be gotten at either from above or below the cover. Should it be necessary to take the umbrella apart at the connection between the stretchers and runner, it is only necessary to slip off the clip 3, so that the disk 2 may move down away from annulus 7.

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

In an umbrella or parasol, the combination of the stick or staff, the ribs, means for pivotally connecting the ribs to the staff, the stretchers, means for pivotally connecting the stretchers to the ribs, the runner comprising an annulus having sockets opening down-

wardly, said stretchers having the ends thereof adjacent the annulus formed with balls disposed in said sockets, a disk taking against the under side of said annulus, said runner having an abutment disposed beneath the annulus, and a split clip receiving the runner and interposed between said disk and abutment, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of October, 1903.

ALFRED FIELDHOUSE.

Witnesses:

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