

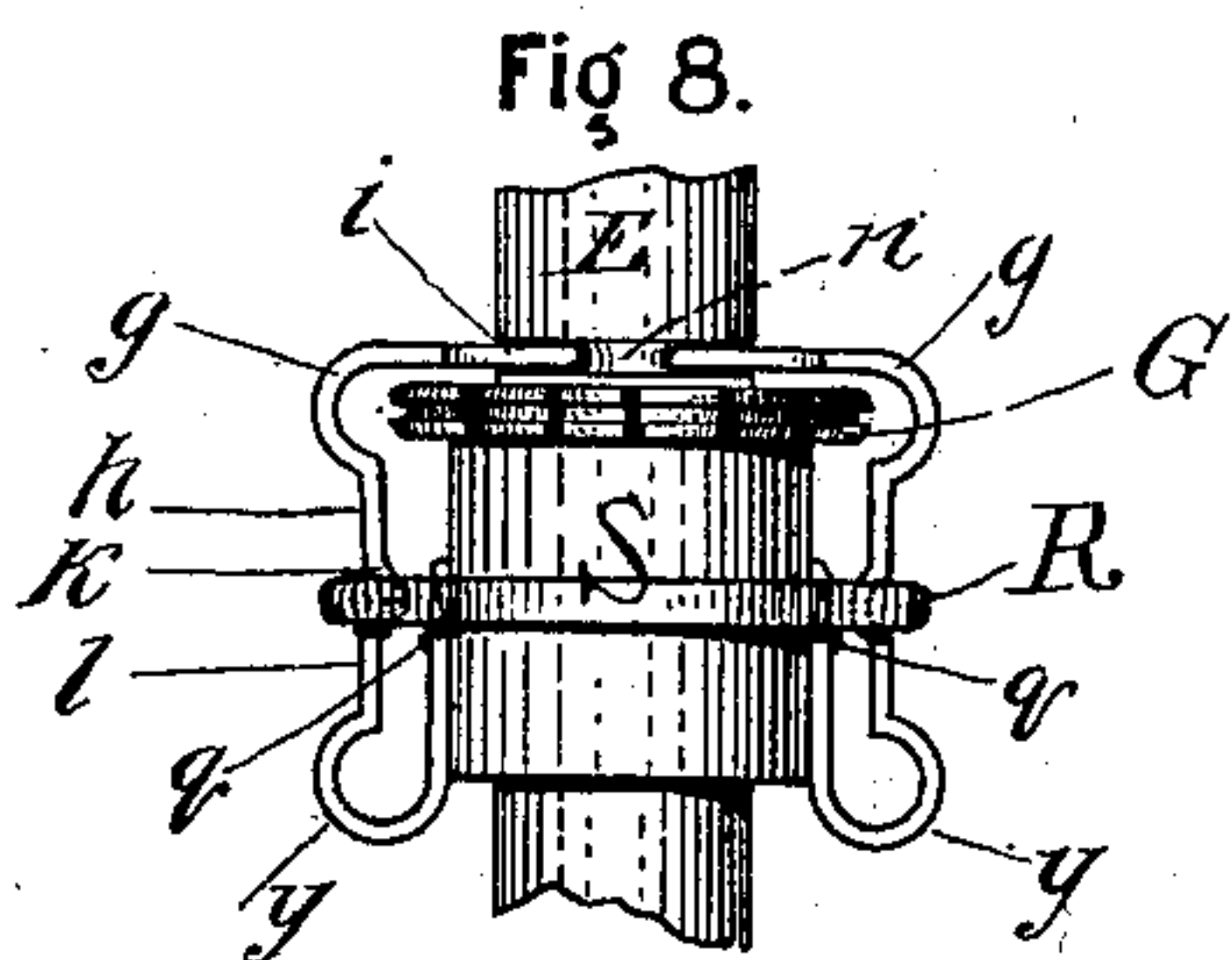
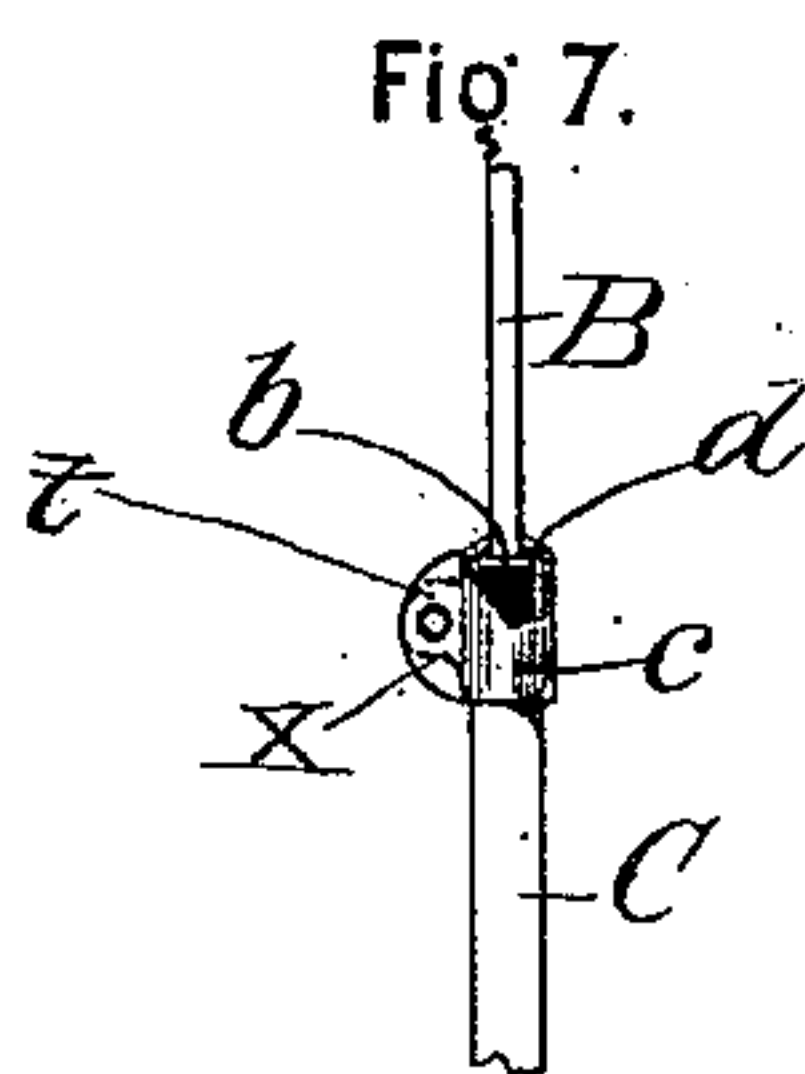
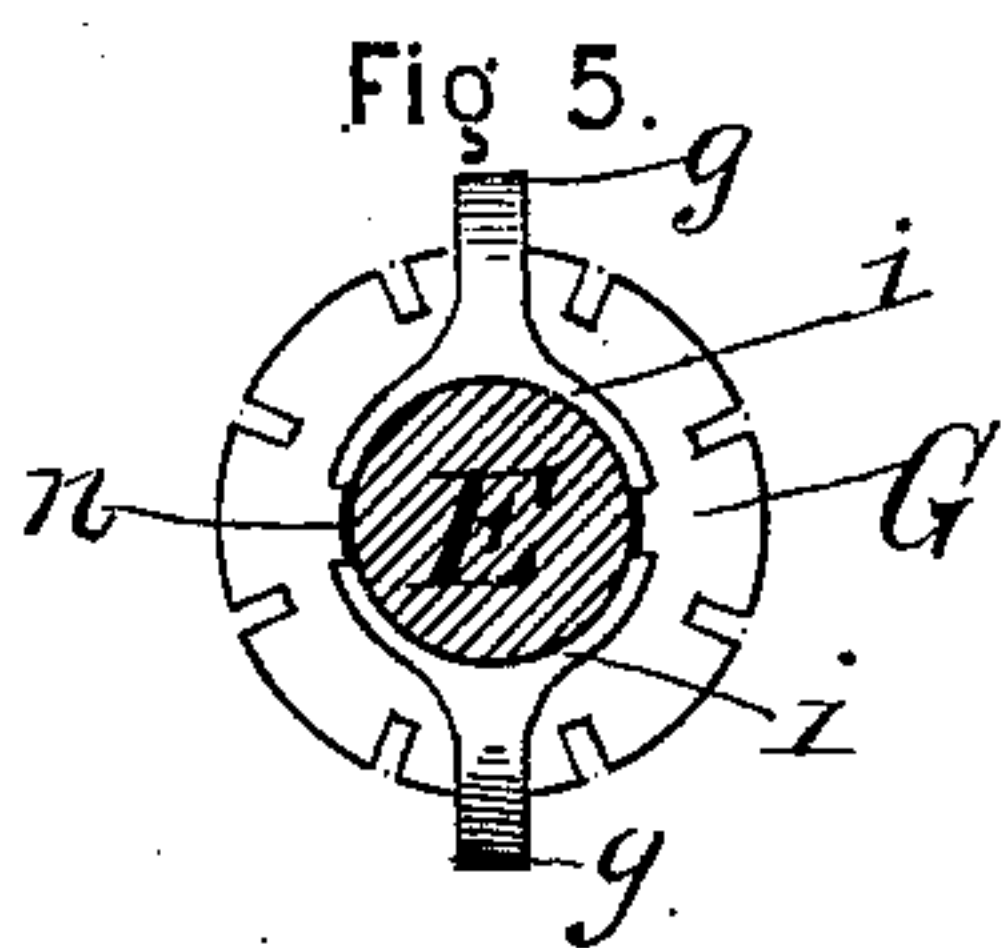
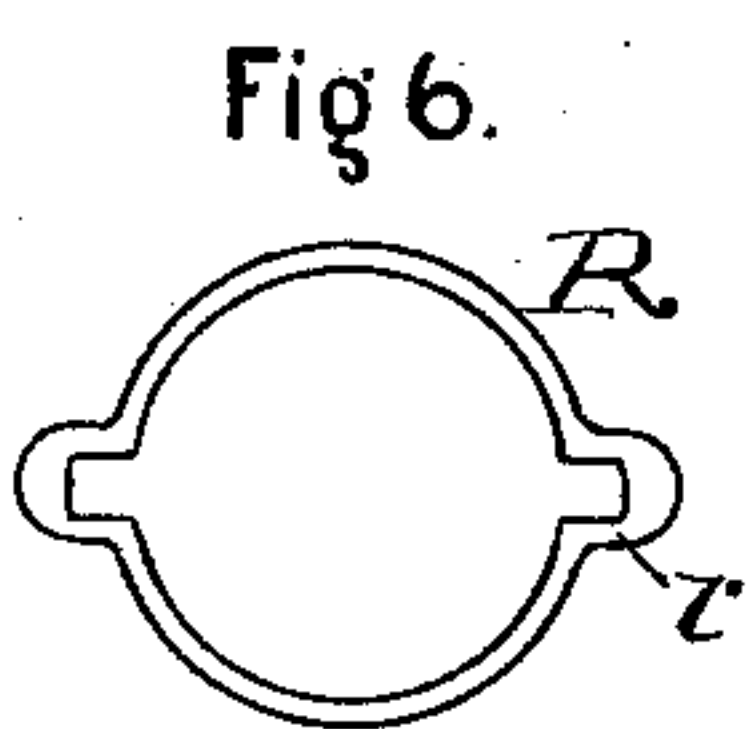
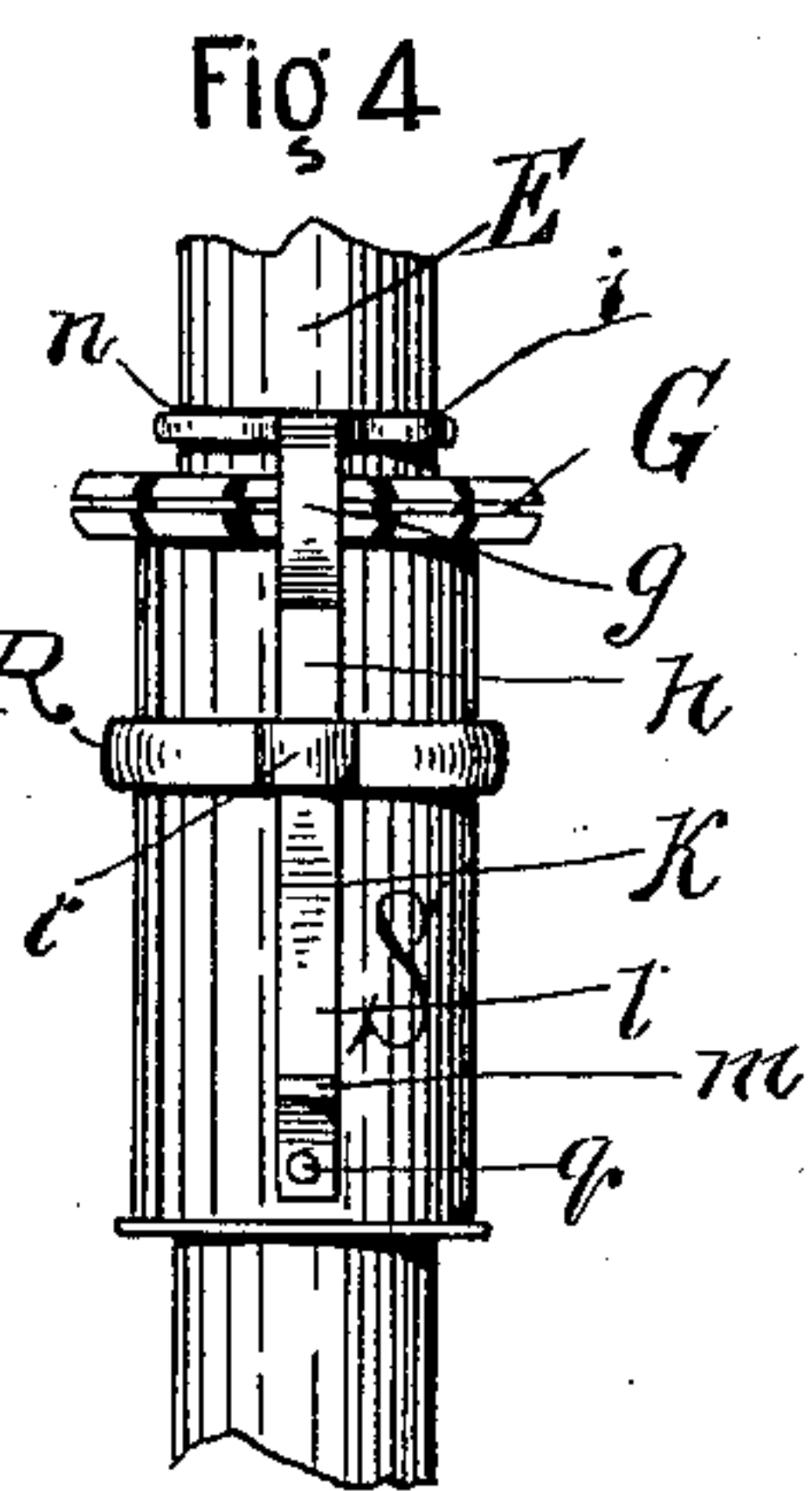
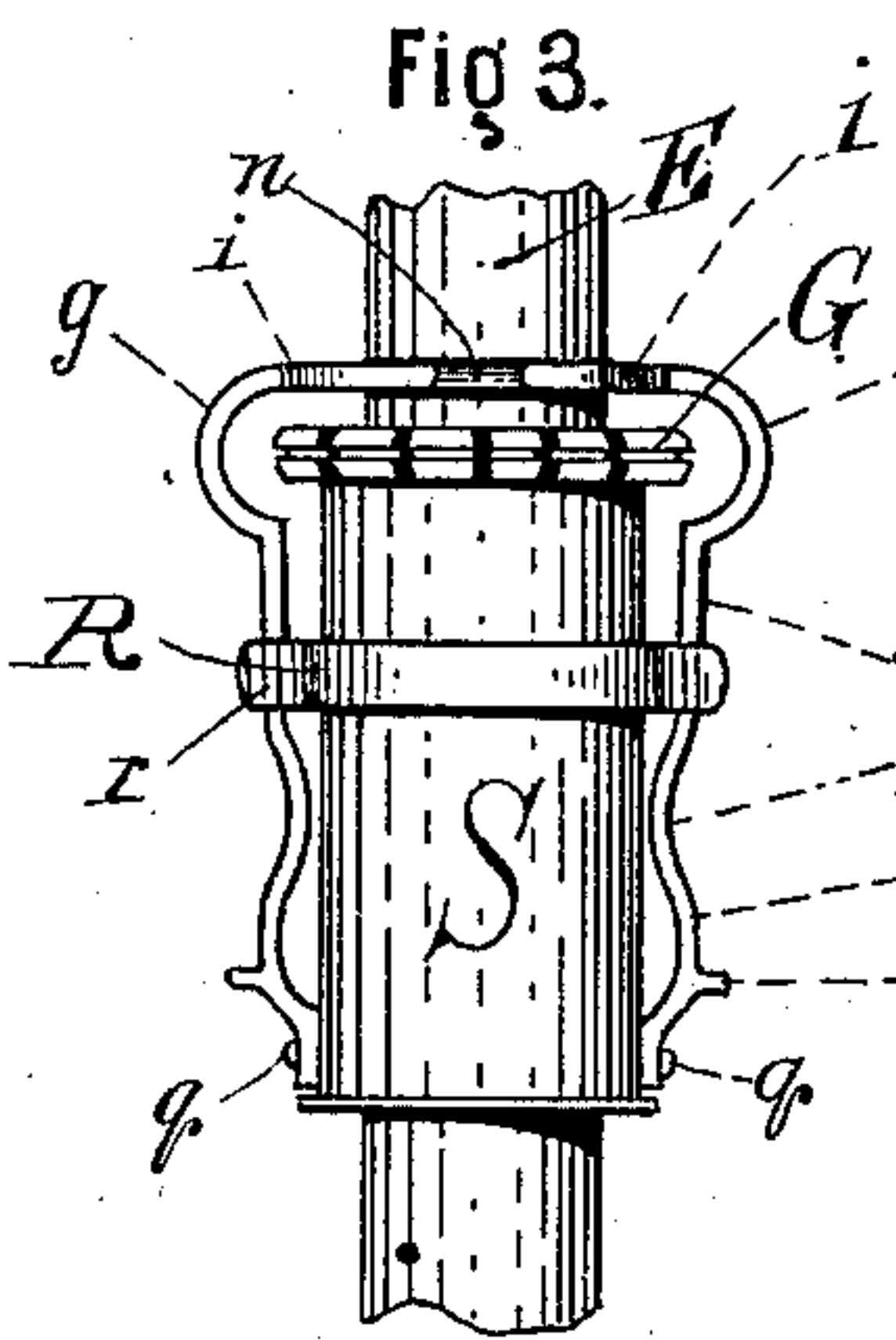
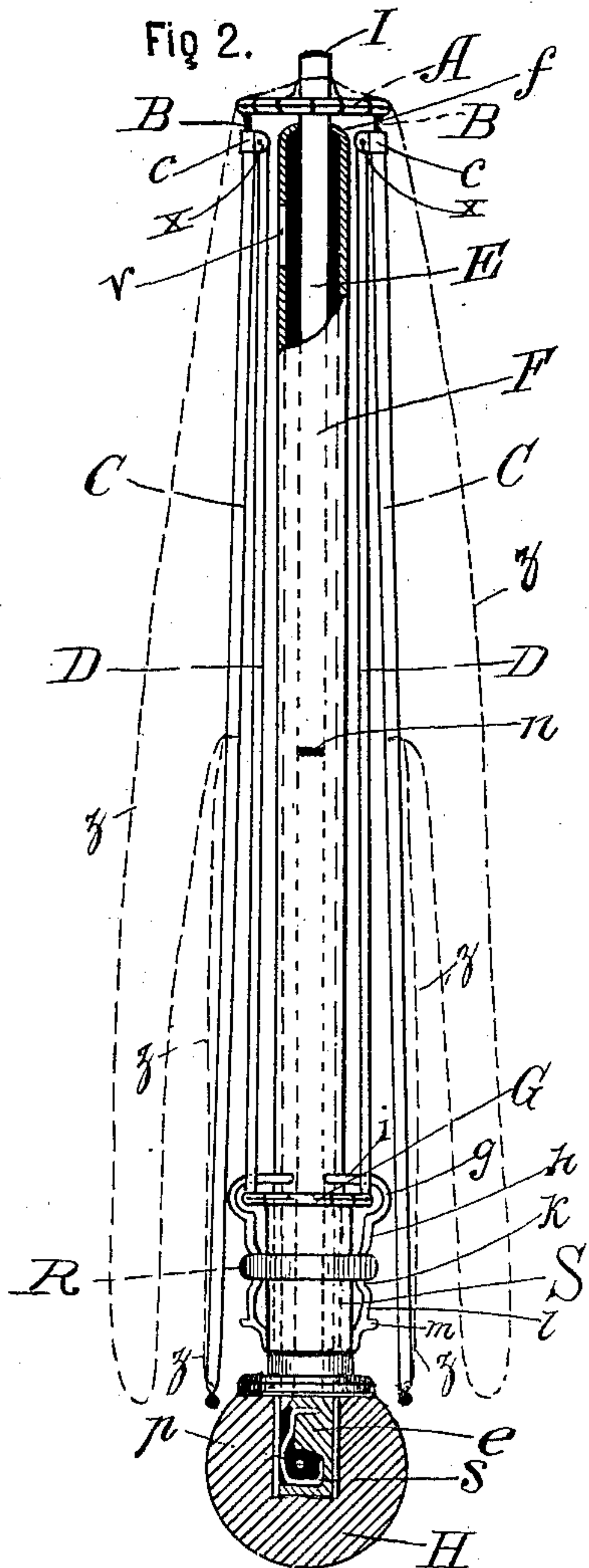
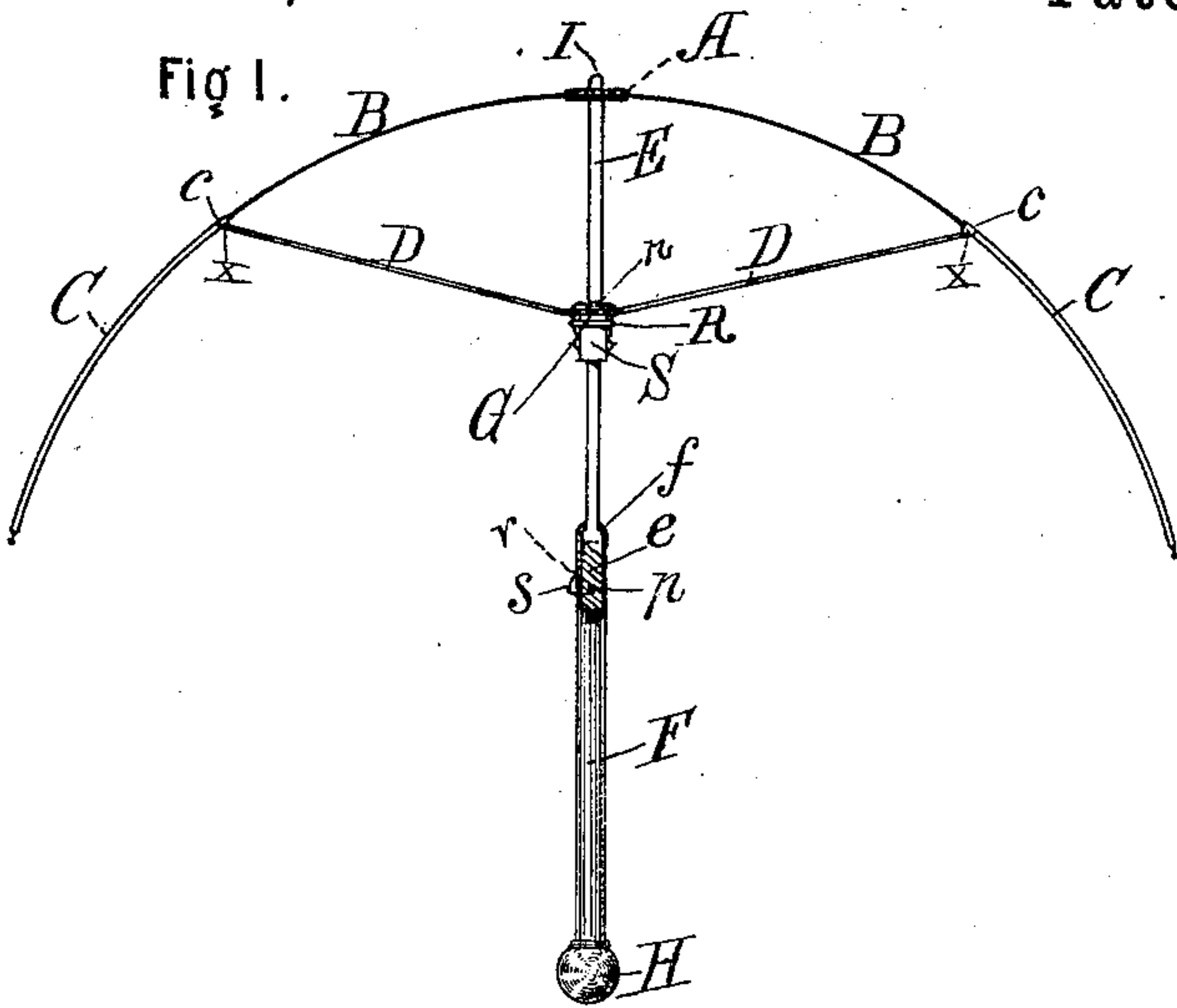
(No Model.)

H. A. W. WOOD.

UMBRELLA.

No. 349,023.

Patented Sept. 14, 1886.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

H. A. WISE WOOD, OF NEW YORK, N. Y.

## UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 349,023, dated September 14, 1886.

Application filed September 4, 1885. Serial No. 176,152. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY A. WISE WOOD, a citizen of the United States, residing in the city of New York, in the county and State of New York, have invented a new and useful Improvement in Umbrellas, which invention or improvement is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to provide a telescopic umbrella which shall be capable of being shut up within a minimum length, compared with its length when extended or open, and to be of cheap and very simple construction.

The invention consists of the parts and combinations of parts hereinafter described, and set forth in the claims.

In the accompanying drawings, Figure 1 shows the umbrella open. Fig. 2 shows the umbrella shut and reduced in length about one-half, the folds of the cover being indicated by dotted lines. Figs. 3, 4, 5, 6, 7, and 8 show details hereinafter more particularly described.

In said figures the several parts are respectively indicated by letters, as follows: A is the crown-piece, to which the ribs B are secured by a ring of wire, as commonly practiced, or in any other suitable manner. The ribs B are made to slide or telescope within the lower sections, C, forming a continuation of the upper ribs, B. The upper one may be either solid and cylindrical, or of a corrugated or angular cross-section, if preferred. In either event the lower part, C, is made of suitable cross-section to receive the upper rib, B, as a male and female sliding coupling. The stretchers D unite the ribs C at *c* to the traveler S by rivets at *c* and by a wire ring at the traveler-notch G in the ordinary manner.

The handle or stick is made in but two pieces, the upper section, E, sliding or telescoping within the lower section, F, made hollow to receive it. Said lower section may terminate in a ball-handle, H, if desired, or may be fitted with any other suitable handle.

The traveler S is held in the proper position for opening or extending the umbrella, as shown in Fig. 1, by means of the clamping-

jaws *g g*, riveted to said traveler at *q q*, and provided with a sliding ring, R, by means of which said jaws are pressed together like clamps, their curved edges *i i* taking in the groove *n*, cut in the stick E. The higher up the ring R is raised over the jaws *g g* the tighter they are clamped into said groove. When said ring is lowered opposite the recession K K in said jaws, the jaws spring open. If said ring be lowered upon the parts *l l*, resting on the stops *m m*, said jaws may be closed sufficiently to bind upon the lower section of the handle F, when the umbrella is closed, and thus clamp or lock it closed.

Fig. 8 shows a modified form of jaws *g g*, by which modification the traveler S is shortened, the curve *y* imparted to said jaws giving them the necessary elasticity and dispensing with the stops *m*. The lower rib, C, is provided with a clamp, *c*, which fits over its upper end and is upset or partly closed thereover, as shown at *d*, Fig. 7. This forms a shoulder which prevents the separation of the two ribs, the upper rib, B, having an enlarged or upset end, *b*, below the clamp *c*. Said clamp is secured to the rib C by the same rivet which secures the stretchers D, such rivet passing through the eye of a small lug (shown in dotted lines at *x*, Fig. 7) interposed between the jaws of the clamp *c*, the eyes all coinciding at *t*. The lower section of the handle F is closed over slightly at its stop *f*, and the handle E is slightly enlarged within the upper section of the handle F, as shown at *e*, Fig. 1. The two sections therefore cannot fall apart. The part *e* is provided with an ordinary umbrella-latch spring, *s*, and the lower section, F, is provided with a slot, *v*, through which said spring protrudes when the handle is lengthened out for using the umbrella. Said spring does not differ in principle from the ordinary spring employed for holding up the travelers of umbrellas. It is made, however, preferably of the shape shown in Fig. 2—that is, so that it will lap but slightly the slot *v* and slanting upward—so that when sprung in by the touch it will readily close by the sliding of the two parts of the handle together.

The operation of all the parts, which are few and simple, can now be readily understood.



Said operation is as follows: It will be observed that the inner diameter of the traveler S is slightly in excess of the exterior diameter of the lower section of the handle F. Said traveler would therefore tend to "wobble" or spring sidewise against the upper stick, E, whose diameter, being smaller than the internal diameter of the stick F, is of course still smaller than the internal diameter of the traveler S; but this wobbling is prevented by the centering and clamping action of the jaws *g g*, which, as before explained, will keep the traveler truly centered on the stick E. Now, to close the umbrella from the open state shown in Fig. 1 to the closed state shown in Fig. 2, it is only necessary to slip the ring R from the part *h h* of the jaws *g g* to the part *k k* just below, when the traveler S can be slid down until it strikes the springs *s*, which it compresses, when the stick E may be slid within the stick F, and the ribs B be slid within the ribs C, or, rather, the ribs C be slid over and up upon the ribs B, thus closing completely the umbrella, the cover fitting into the folds represented by the dotted lines Z in Fig. 2. It will be observed that the cover is attached at three points of the frame—namely, at the crown-piece or top, in the usual manner, at about the middle point of each rib C, and at the extreme outer or lower end of each of said ribs, as shown in Fig. 2. This umbrella, when thus closed, occupies a minimum space possible for any given size of umbrella where but two sections of handle and rib are employed.

I am aware that folding or telescopic umbrellas have been proposed having double or triple shortening devices; but all such are complicated and costly and liable to easily get out of order. With this umbrella none of its possible shortness, when closed, is sacrificed by thimbles or other devices for centering and guiding the traveler on the upper and smaller stick, and if a ball-cap be used upon the handle the same may be bored, as shown in Fig. 2, to receive the lower end of the upper stick and the spring-latch set therein. There is no necessity for the handle or stick to project below the ends of the ribs when the umbrella is closed. The parts may all be so proportioned as to have the handle, bight or bag of the cover, and the end of the ribs all of nearly the same length when the umbrella is closed up. The end of the stick or ferrule I may be made as short and stumpy as desired where the

length is required to be reduced as much as possible.

This umbrella is of special convenience for travelers' use, and may be readily put, when closed, in an ordinary hand-bag or trunk. It may also be provided with a neat case or short bag, of waterproof or other material, for convenience of carriage, like an ordinary small package or bundle.

The umbrella can be made in any of the standard sizes usual for ordinary umbrellas.

I am aware that neither folding-handle, nor folding-rib, nor telescopic-handle, nor telescopic-rib umbrellas are new, and such I do not claim; but,

Having thus fully described my said improvements as of my invention, I claim—

1. A telescopic umbrella-handle composed of two sections, in combination with a traveler, all arranged and constructed so that the upper section slides within the lower section as far as the crown-piece of the upper section when the umbrella is shut up, and said traveler slides off the lower section directly upon the upper section when the umbrella is opened, whereby a minimum length is secured when the umbrella is shut up, substantially as and for the purposes set forth.

2. In combination with the traveler of an umbrella-frame, a pair of clamping-jaws, as *g g*, and a sliding ring, as R, for closing and releasing said jaws, substantially as and for the purposes set forth.

3. In combination with the traveler of an umbrella-frame, a pair of clamping-jaws, as *g g*, each constructed with a recess, as K, and provided with a sliding ring, as R, substantially as and for the purposes set forth.

4. In combination with the traveler of an umbrella-frame, a pair of clamping-jaws, as *g g*, a sliding ring, as R, for clamping and releasing said jaws, and a stop or stops, as *m*, for supporting said ring, substantially as and for the purposes set forth.

5. In combination with an umbrella-handle provided with a groove, as *n*, a traveler, as S, provided with compressing or clamping jaws, as *g g*, and a sliding ring, as R, whereby said traveler is clamped to said handle, substantially as and for the purposes set forth.

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Witnesses:

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