

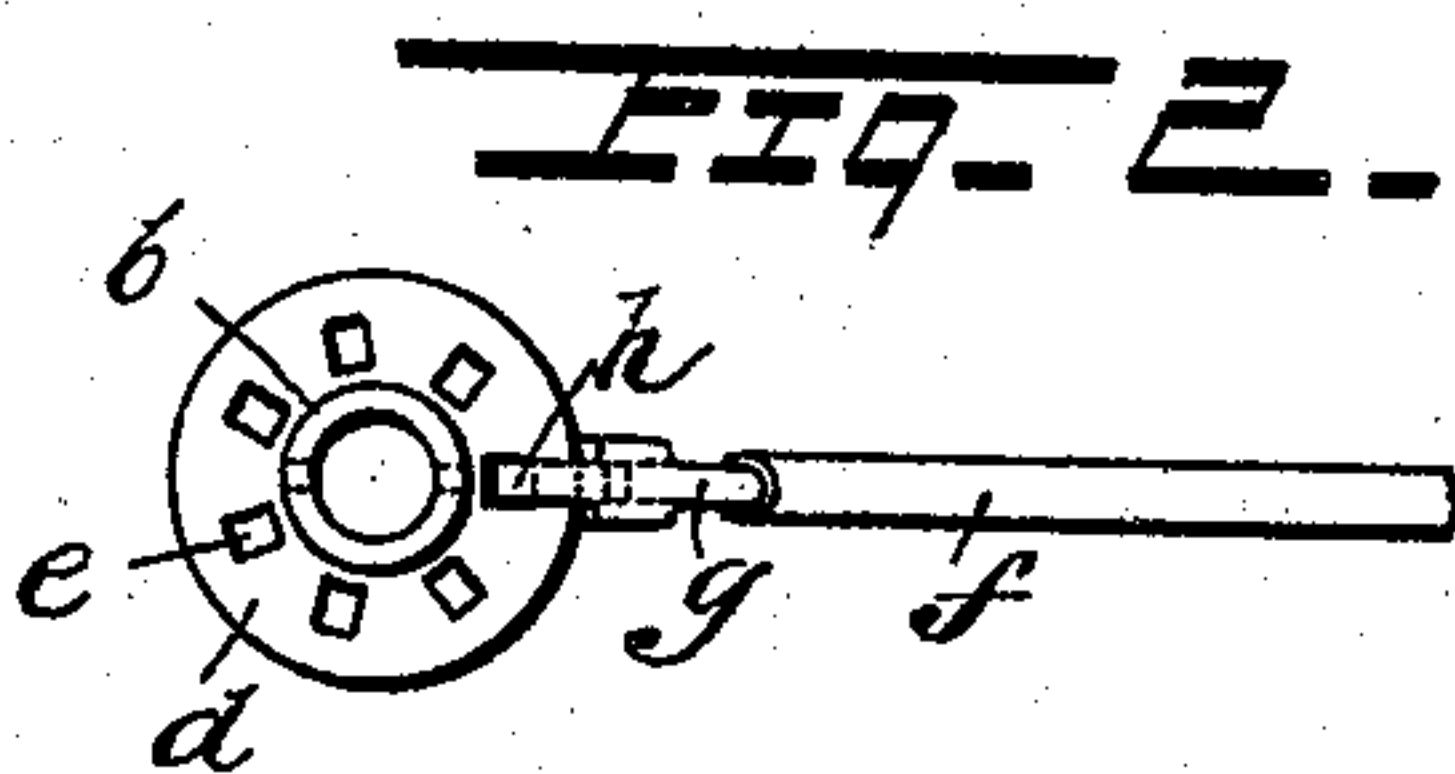
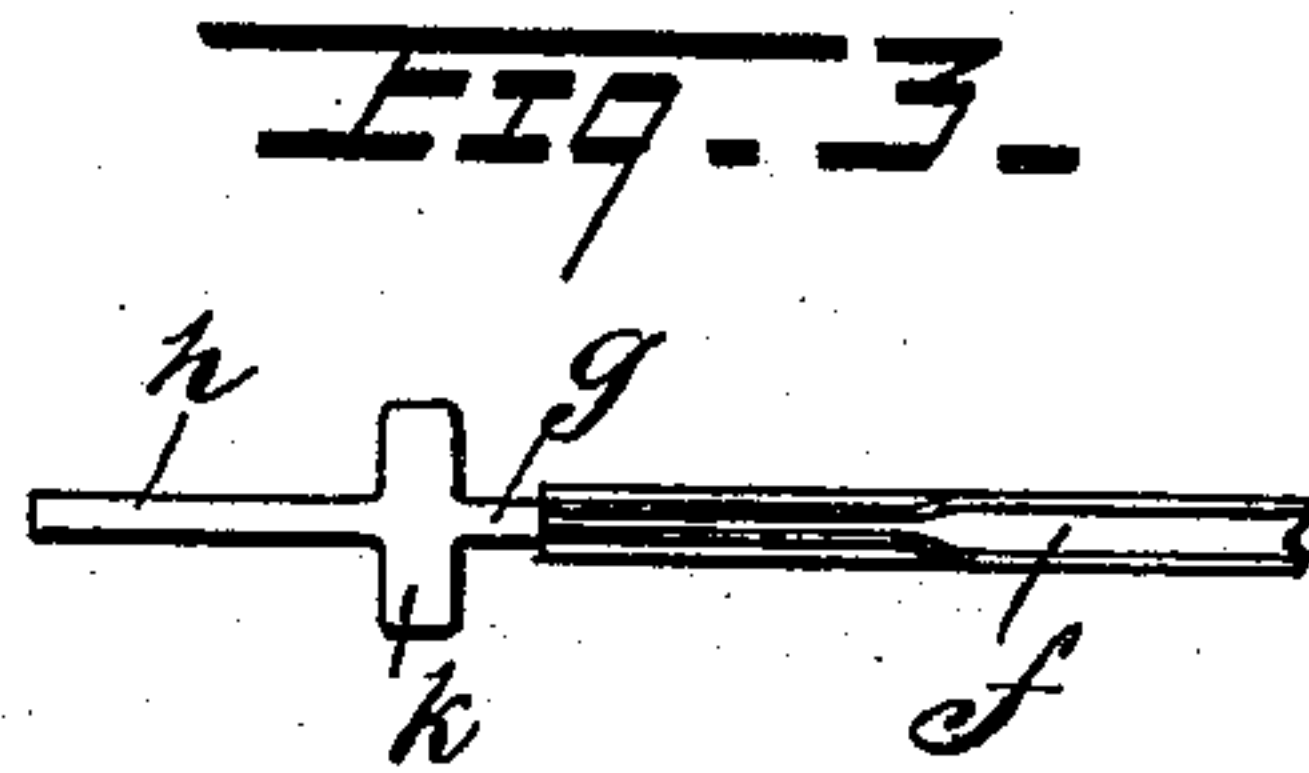
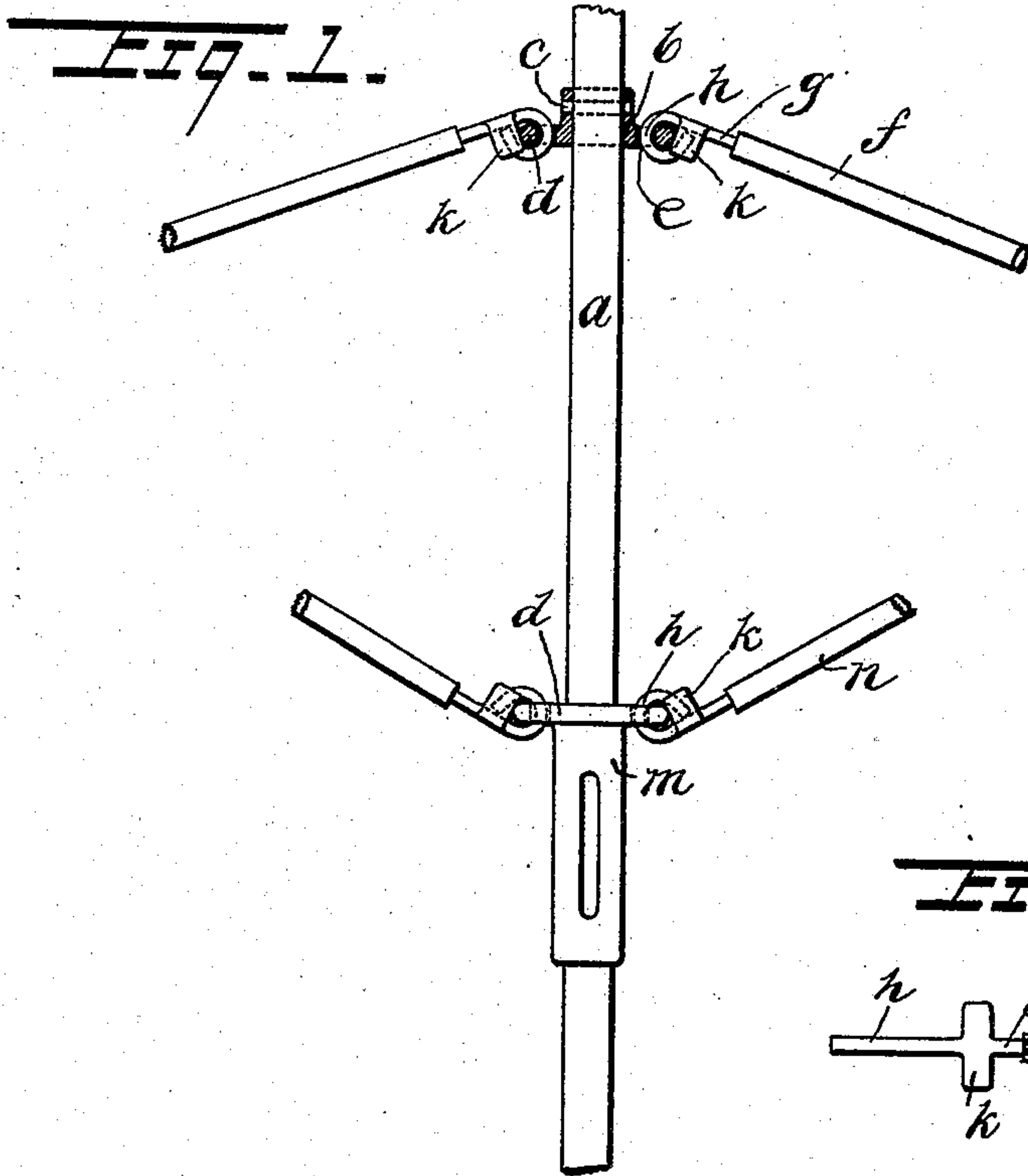
J. J. HENNING.

UMBRELLA.

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915,958.

Patented Mar. 23, 1909.



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Inventor

Witnesses
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By

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UNITED STATES PATENT OFFICE.

JAMES J. HENNING, OF READING, PENNSYLVANIA.

UMBRELLA.

No. 915,958.

Specification of Letters Patent.

Patented March 23, 1909.

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To all whom it may concern:

Be it known that I, JAMES J. HENNING, a citizen of the United States, and a resident of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Umbrellas, of which the following is a specification.

My invention relates to umbrellas and has for its object the improvement of the pivotal connection of the ribs to the notch, and similarly of the stretchers to the runner, as hereafter fully described, the novel features being specifically pointed out in the claim.

Figure 1 is a broken view, partly in elevation and partly in section, of a portion of an umbrella embodying my invention. Fig. 2 is a plan view of the notch, showing a single rib pivoted thereto as in Fig. 1. Fig. 3 is a detail view illustrating the preferred rib-end (or stretcher end) construction, the hook and wing portions being shown flat.

In the drawings *a* is the stick made of any suitable material as metal or wood, and *b* is the notch or crown thereon which may be stamped or cast preferably of brass or similar non-rusting metal. This crown *b* is secured to the stick *a* in proper position as by means of the pin *c* and its flange or crown-plate *d* is formed with spaced apertures *e* preferably of rectangular shape as shown, for the reception of the hooked ends *h* of the ribs *f*. These ribs are made of the usual U-shaped metal, but instead of the eye formed in the flattened notch-end thereof, I attach to the end of each rib a crown-engaging piece *g* preferably formed of brass or like metal and se-

curely clamped between the U-shaped sides of the rib. As shown in Fig. 3 this piece *g* may be stamped out of sheet metal having aperture-engaging portion *h* and wing stops *k* projecting laterally therefrom. The ribs *f* are secured to the crown by their hooked end portions *h* which are inserted in the spaced apertures *e* formed in the crown plate *d*, the wings *k*, which are bent at right angles, bearing against the periphery of the apertured plate *d*, and the terminal portions of the hooked ends *h* being engaged between the wings *k*, as shown, so that said wings practically prevent undue lateral movement of the ribs in their pivotal connection with the crown and also stiffens the open hook formed by the bent end *h*.

The invention is also applied to the runner *m* and stretchers *n*, the construction of which, as shown, is similar to that of the crown *b* and ribs *f* already described.

What I claim is:—

In an umbrella the combination with the stick of a crown-plate thereon having a circular series of vertical rib-engaging apertures, and ribs having hooked ends pivotally engaged in said apertures and wings forming stop shoulders adjacent said hooked ends and adapted to contact with the periphery of said crown-plate to limit lateral swing of the ribs substantially as set forth.

In testimony whereof, I affix my signature, in the presence of two witnesses.

JAMES J. HENNING.

Witnesses:

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