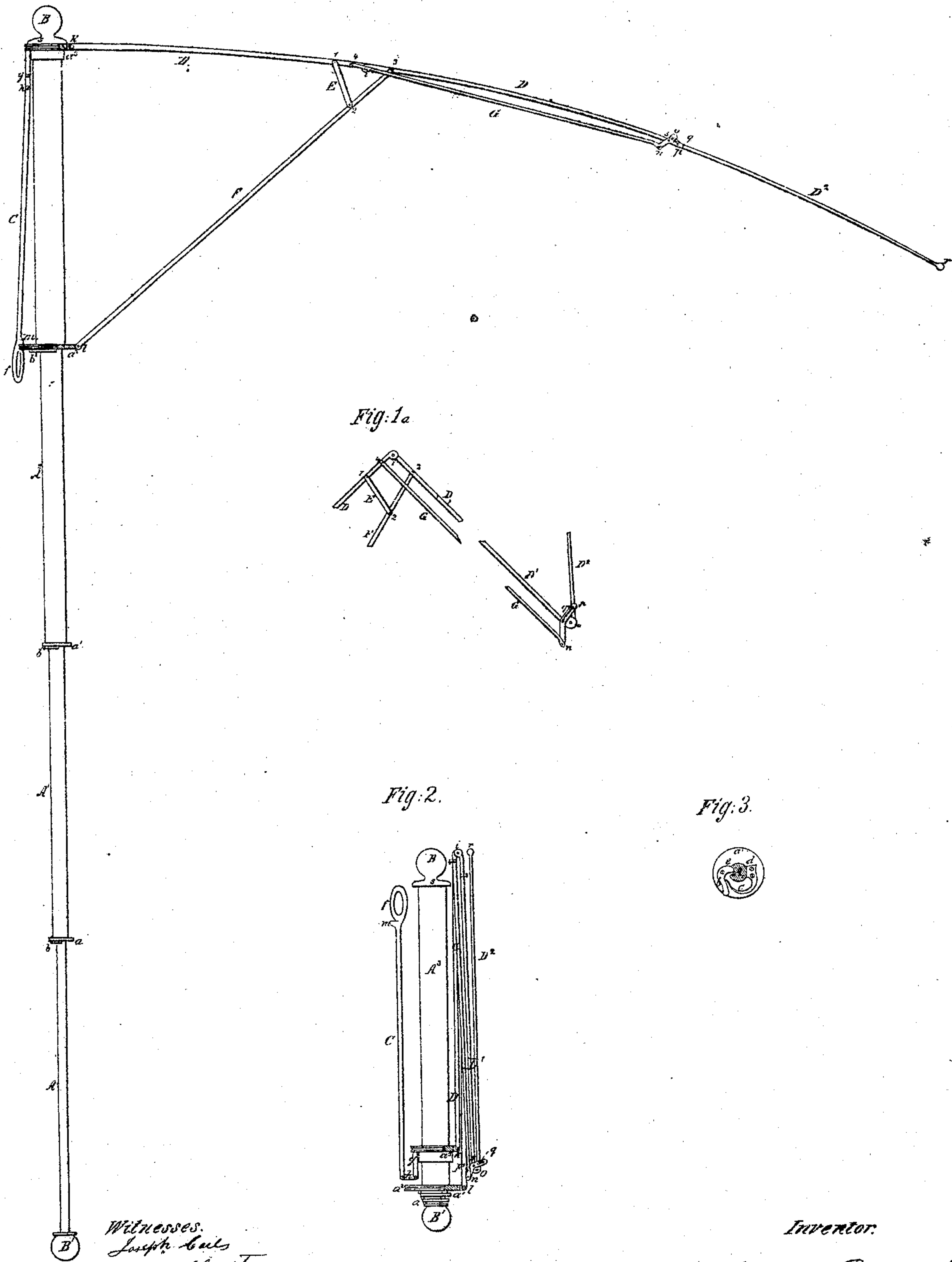


C. Boernicke.
Umbrella.

Patented Aug. 31. 1858

№ 21313.

Fig. 1.



Witnesses.
Joseph Gals
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Inventor:

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CHARLES BOERNICKE, OF BALTIMORE, MARYLAND.

UMBRELLA.

Specification of Letters Patent No. 21,313, dated August 31, 1858.

To all whom it may concern:

Be it known that I, CHARLES BOERNICKE, of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Pocket-Umbrellas; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification.

In these drawings Figure 1 represents a vertical inside view of my umbrella, when open, Fig. 2 shows the same umbrella when folded and Fig. 3 represents a ground plan of one of the disks or circular projections a , of the stick of the umbrella.

Similar letters of reference marked on these drawings denote the same parts.

This improvement refers to that class of umbrellas which can be folded together to occupy very little space, so that they may be carried in the pocket of a coat.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The vertical stick of the umbrella is composed of four or more parts A , A_1 , A_2 , A_3 , of which the part A may be solid or hollow, and the other parts A_1 , A_2 , A_3 , being tubes, each one having a larger bore than the other so as to permit the sliding in and out of the same. The part A terminates in a knob or handle B_1 and the part A_3 is provided with a top piece B having a circular projection s . The lower ends of parts A_1 and A_2 are provided with a circular projection or disk a , a_1 as shown in Fig. 3, which permits the sliding of the parts and prevents them from being drawn out too far. To these disks are firmly secured the springs c which have not only to press the catch lever b with its projection e into holes provided near the ends of the parts A , A_1 , and A_2 , to prevent these parts sliding into each other, but they have also to prevent the parts from turning around by means of the flat end d of the same. The lower end of part A_3 of the stick is also provided with a circular projection a_2 but of a greater diameter, and having a channel around its circumference and several recesses to receive and fasten the ends l of the rods F , allowing them to turn around the pivots l . It will be understood that the lower side of this disk a_2 is also pro-

vided with a spring c and lever b , e , similar to the other disks represented in Fig. 3.

Between the top piece B and the disk a_2 of the part A_3 is the collar piece a_3 , which may slide up and down. This collar piece has also a circular projection, having a channel around its circumference and recesses similar to those described by disk a_2 for the purpose of receiving and fastening the ends of the rods D , allowing them to turn around the pivots k .

On the lower side of the circular projection of collar piece a_3 is a stationary standard g which is connected with a rod C by means of a link h and two pivots. This rod C terminates in a ring or other handle f and is near that ring provided with a projection m .

The rod D is connected with the rod D_1 by means of a hinge i ; and the rod D_1 is also connected with the rod D_2 by means of the hinge o . The hinge i opens outward, the hinge o opens inward. The rod D_2 terminates in a little ball or any other suitably shaped ornament r .

The rod F above mentioned is not only connected with rod D_1 by the pivot 3, but also connected with the rod D by means of a connecting piece E , pivoted to rod D at 1 and to rod F at 2.

Near the joint o of the rod D_1 and attached to this rod is a joint lever n , 5, p turning on pivot 5 and being connected at n with a rod G the other end of which rod G is connected with the rod D by means of pivot 4. The other arm p of this joint lever is provided with a slot g to receive a pin or pivot attached to rod D_2 near the joint or hinge o .

Operation.

Opening of the umbrella.—The first operation will be to draw out the stick, which is simply done by taking hold of the handle B_1 and pulling it out. Each one of the parts A , A_1 , and A_2 will be drawn out till the noses e of levers b enter the holes near the ends of said parts A , A_1 , and A_2 by means of the pressure of springs c . After this the collar piece a_3 is slid up on part A_3 till it comes into contact with the projection s of the top piece B , by means of rod C and then the projection m of this rod C , made to rest on the circular projection a_2 on the

lower end of part A_3 . By this operation the point k of rod D is moved upward, and therefore the hinge i opened, which causes by the action of rod G and joint lever n 5 p the opening of the hinge o .

Folding the umbrella.—By taking hold of the handle f of rod C and removing the projection m of the same from the circular projection a_2 , the collar piece a_3 may at once be slid down on the part A_3 to its proper position shown in Fig. 2. By this operation the rods D_1 and D_2 are drawn close to the stick, and by turning the top of the umbrella downward the rods D_2 are falling in by their own weight. After this the stick may be drawn in, by applying a small pressure to the part 6 of the levers b to remove their noses e out of the holes and by pulling the handle B_1 of the stick inward.

From this it will be seen that by a light, simple, cheap and durable construction an

umbrella may be obtained, which can be folded together to occupy so small a space as to be carried in almost every pocket with great convenience, and offering the greatest security against being lost by forgetfulness or theft.

Having thus described my invention I will now proceed to state what I claim and like to secure by Letters Patent.

I claim constructing a pocket-umbrella as described within consisting of rods D , D_1 , D_2 , E , F , G , joint lever n , 5, p , collar piece a_3 , rod C with projection m , stick A , A_1 , A_2 , A_3 , provided with disks a , a_1 , a_2 and levers b with springs c , all combined and operated as set forth.

CHARLES BOERNICKE.

Witnesses:

JOSEPH CARL,
JOHN HAUPTMAN.