(No Model.)

J. BERGESEN.

UMBRELLA.

No. 438,983. Patented Oct. 21, 1890.

Fig. 1.

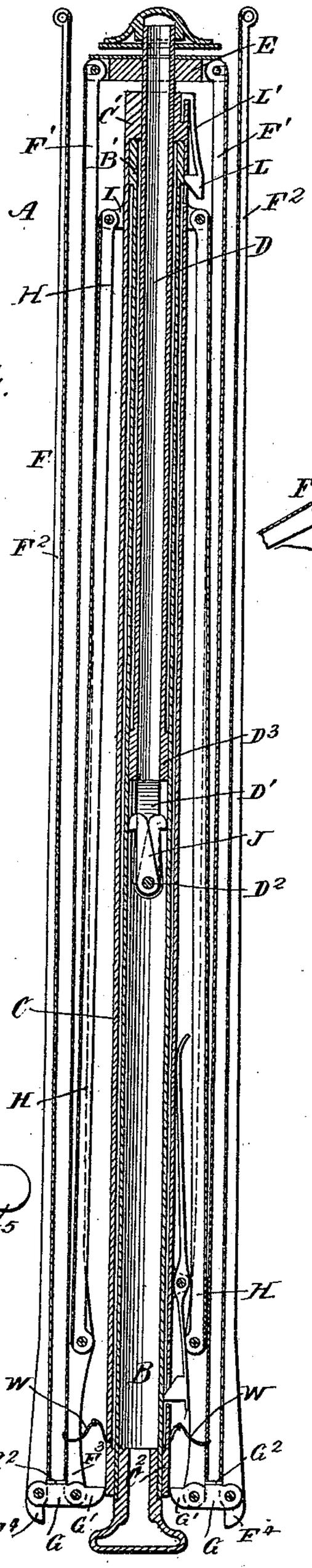


Fig. 2.

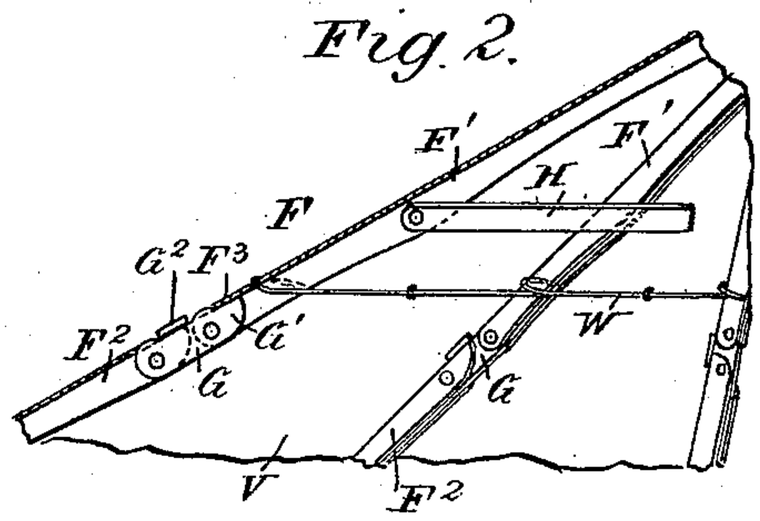


Fig. 3.

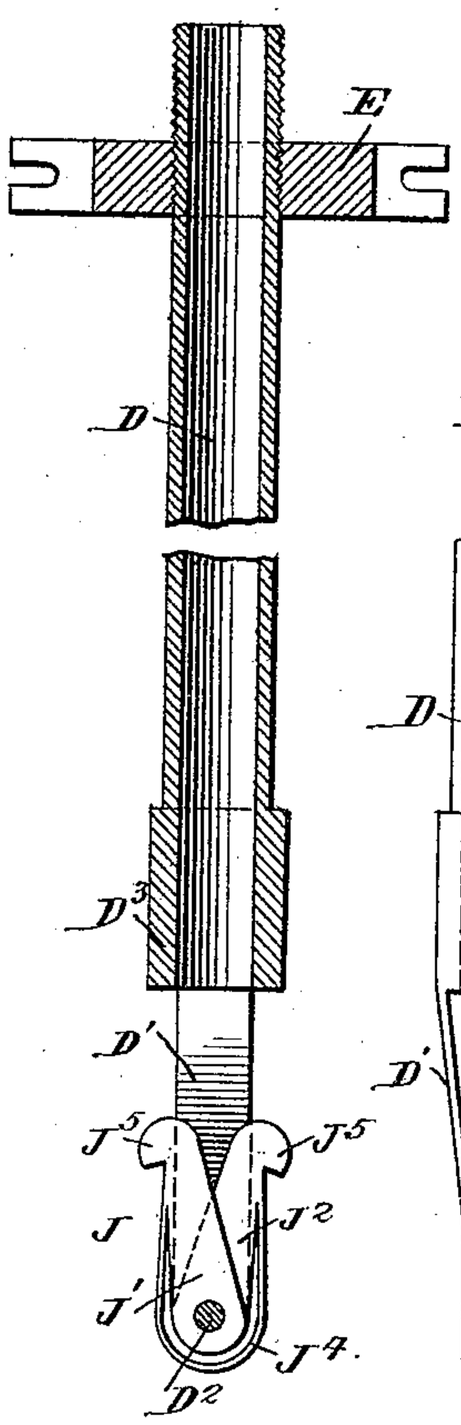


Fig. 4.

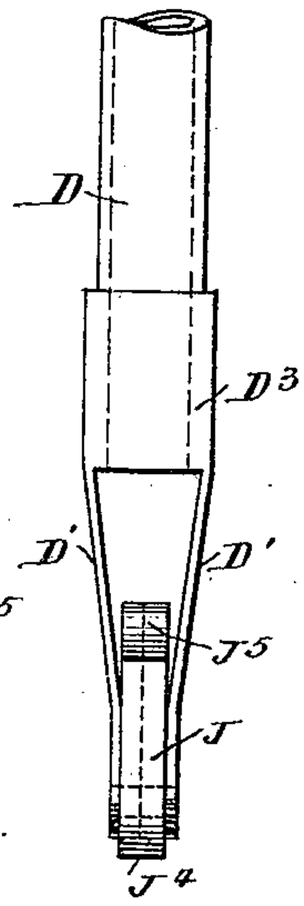


Fig. 5.

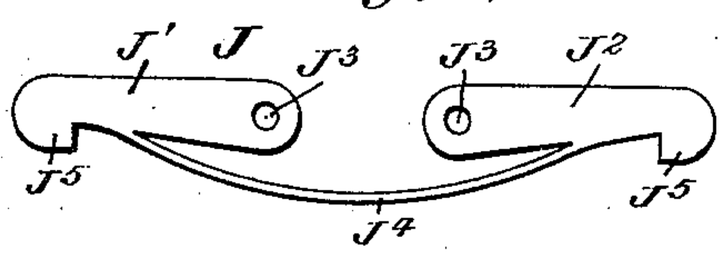
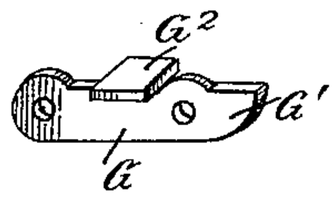


Fig. 6.



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UMBRELLA.

SPECIFICATION forming part of Letters Patent No. 438,983, dated October 21, 1890.

Application filed July 2, 1890. Serial No. 357,499. (No model.)

To all whom it may concern:

Be it known that I, JOHN BERGESEN, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Umbrella, of which the following is a full, clear, and exact description.

The invention relates to umbrellas such as shown and described in my patent, No. 433,270, dated July 29, 1890.

The object of the present invention is to provide a new and improved umbrella, which is simple and durable in construction and insures an easy working in opening and closing it.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement as folded up. Fig. 2 is an inside perspective view of part of the improvement as open and extended. Fig. 3 is an enlarged sectional side elevation of the outer section of the stick. Fig. 4 is an end view of the same. Fig. 5 is a side elevation of the catch, and Fig. 6 is a perspective view of the joint-plate.

The improved umbrella A is provided with a cane or stick made in three sections adapted to telescope one in the other, and of which the lowermost or handle section B is provided on its handle end with a suitable handle, and is held to slide in the middle section C, in the upper end of which is held to slide the outermost section D, adapted to pass into the upper end of the handle-section B, as is plainly shown in Fig. 1.

On the upper end of the outermost section D is secured the crown-piece E, to which are pivoted the ribs F, preferably made U-shaped in cross-section, and each made in two parts F′ F², of which the upper end of the part F′ is pivoted in the crown-piece E, while its lower end is pivoted to a joint-plate G, on which is also pivoted the upper end of the outer part F². Each joint-plate G is provided with an extension G′, extending a short distance beyond the pivot, connecting the upper rib part F′ with the joint-plate G. This extension G′ is adapted to engage the back F³ of the rib part F′ from the inside when the umbrella is opened, as is plainly shown in Fig. 2.

On the outer edge of the joint-plate G, between the pivots for the parts F′ and F², is arranged a transversely-extending lug or cross-piece G², adapted to be engaged on the under side by lugs or extensions F⁴, formed on the inner end of each of the rib parts F². (See Figs. 1 and 2.) By thus constructing each joint-plate G the rib parts F′ and F² cannot bend or open farther outward than into alignment at the joint when the umbrella is opened, as is shown in Fig. 2. The cross-bar G², as well as the extension G′, prevent further outward movement of the pivoted ends of the rib parts F′ and F² at the joint-plate. Each upper rib part F′ is pivotally connected a short distance above the joint-plate G with a brace H, pivoted at its inner end to the brace-piece I, secured on the upper end of the middle section C, as is plainly shown in Fig. 1.

From the lower end of the outer section D extend downward the brackets D′, supporting a pin D², on which is pivoted a catch J, made of a single piece of spring metal, as is plainly shown in Fig. 5. The catch J is provided with two arms J′ and J², each having on its inner end an eye J³, through which is adapted to pass the pin D², forming the fulcrum for the two arms J′ and J². The latter are connected with each other by a thin spring-arm J⁴, which has a tendency to press the arms outward when fulcrumed on the pin D². Each arm J′ and J² is formed on its outer end with a hook or shoulder J⁵. The arms J′ and J², when placed on the pin D², are swung toward each other, as shown in Fig. 3, so as to rest with their inner faces one on the other and both between the brackets D′. When in this position, the catch J is adapted to pass into the handle-section B, as is plainly shown in Fig. 1, and its hooks or shoulders J⁵ are adapted to be engaged by the edge of the said handle-section in order to move the outermost section D into an extended position.

In order to hold the outermost section D in place when extended, a lug L is adapted to engage the lower edge of the section D, said

lug L being secured on a straight spring L′, fastened to the outside of the middle section C, above the brace-piece I. The lug L extends through an aperture in the section C to the inside of the latter, so as to engage the lower end of the section D when the latter is moved in an outermost position, as shown in the patent above referred to, so that an exterior collar D^3 on the lower end of the said section D abuts against the interior annular flange C′, formed on the upper end of the middle section C. The collar D^3 and the flange C′ serve to prevent displacement of the section D on the section C.

On the lower end of the middle section C is formed on the inside an annular flange C^2, adapted to be engaged at its upper edge by the lower edge of an exterior collar B′, formed on the upper end of the handle-section B.

In order to lock the handle-section B in place on the middle section C when the umbrella is opened, the same device is provided, as shown in the patent above referred to, and a further description of the same is not deemed necessary.

The under side of the lug L, previously described, is provided with a bevel adapted to be engaged by the upper end of the handle-section B, so as to move the said spring-pressed lug L outward to permit the closing of the outermost section.

The several rib parts F′ are connected with each other a short distance above the joint-plates G by a cord or elastic band W, secured in its middle between two succeeding ribs on the covering material V. The band W stretches tight when the umbrella is opened, as shown in Fig. 2, and serves to hold the covering material V away from the joint-plates G to prevent entangling of the material in the said joint-plates when opening or closing the umbrella.

The operation of opening and closing the umbrella is substantially the same as the one shown and described in the Letters Patent above referred to, so that a further description is not deemed necessary.

It is understood that the special construction of the joint-plates G prevents the rib parts from opening too far outward when the umbrella is opened.

The especial construction of the catch J saves considerable time and labor in the manufacture of the same; but it has otherwise the same functions and operates the same as the catch described in the patent mentioned.

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

1. In an umbrella, the joint-plate G, having two transverse pivot-apertures, the cross-piece G^2 on its upper edge between the two apertures, and the extension G′ at its upper end, substantially as set forth.

2. In an umbrella, a rib comprising two rib parts and a joint-plate for connecting the said rib parts with each other, the said joint-plate being provided with an extension adapted to engage the under side of one of the rib parts, the said joint-plate being also provided with a cross-bar adapted to be engaged by an extension on the other rib part, substantially as shown and described.

3. The combination, with the telescopic umbrella-stick, of the brackets D′ D′ on the inner end of the inner stick-section, the hook-arms J′ J^2, pivoted together at their inner ends between the said brackets, provided with the hooks J^5 and the spring J^4, integral with said arms and bowed under their pivoted ends, substantially as set forth.

4. The herein-described umbrella-catch, consisting in two arms J^2, provided at their adjacent ends with apertures J^3, hooks J^5 at their outer ends, and the integral spring J^4, connecting the two arms between their ends on their lower edges, substantially as set forth.

5. In an umbrella, a catch made of a single piece of metal formed with two hook-arms connected with each other by a spring, substantially as shown and described.

JOHN BERGESEN.

Witnesses:
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E. M. CLARK.