

W. Damerel
Umbrella.

Patented Sept. 25/1866

N^o 58227

Fig. 1.

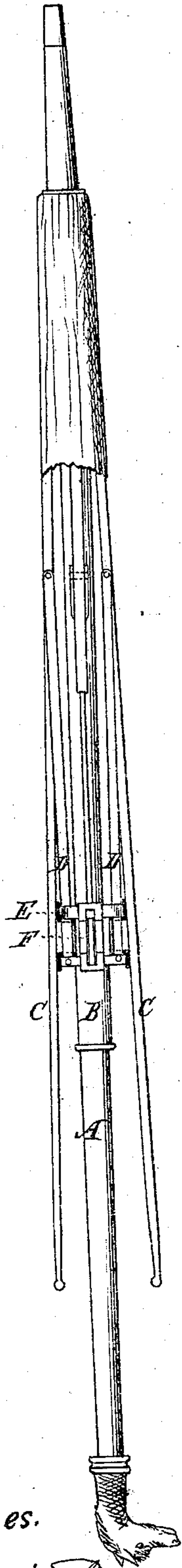


Fig. 2.

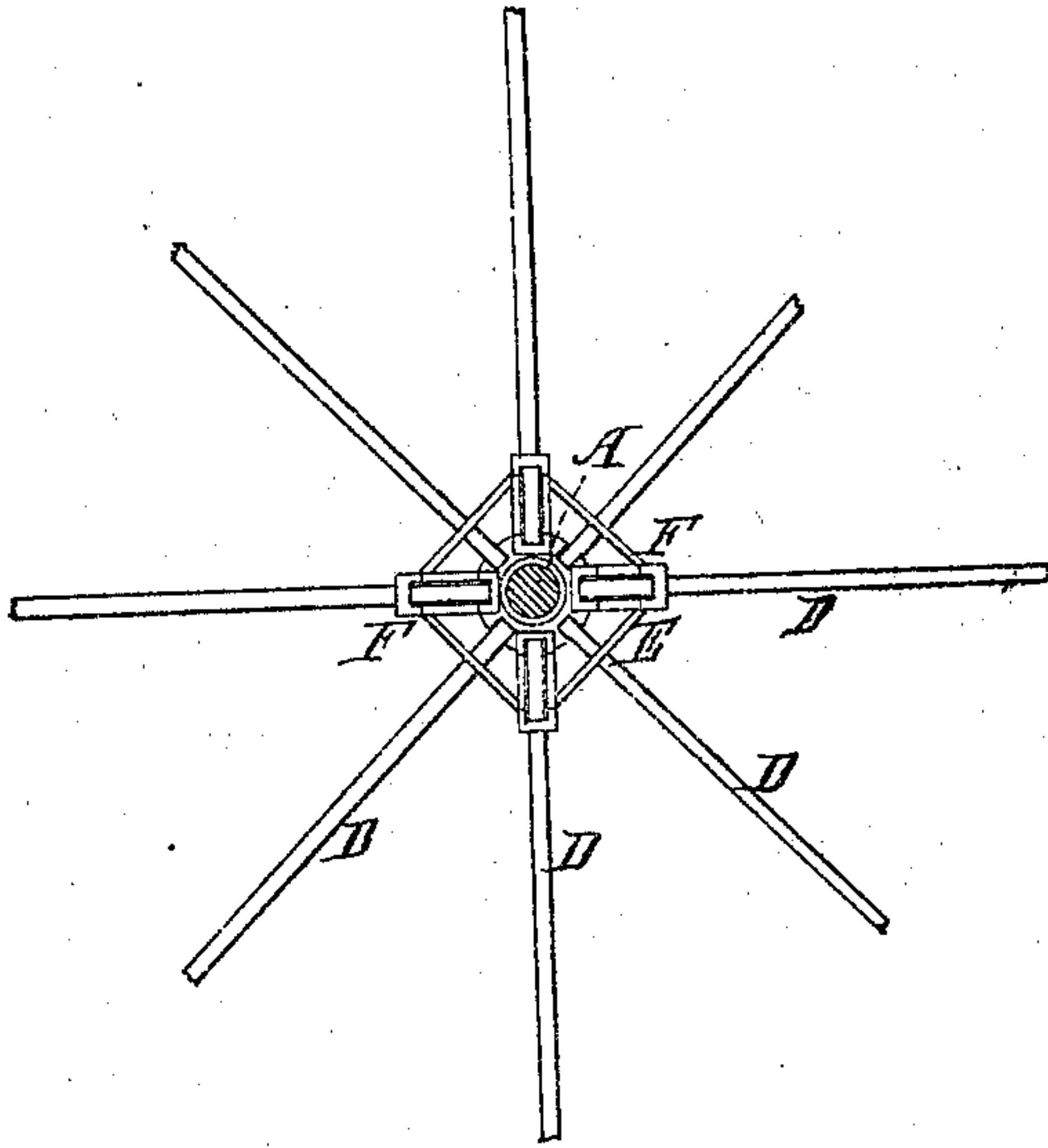
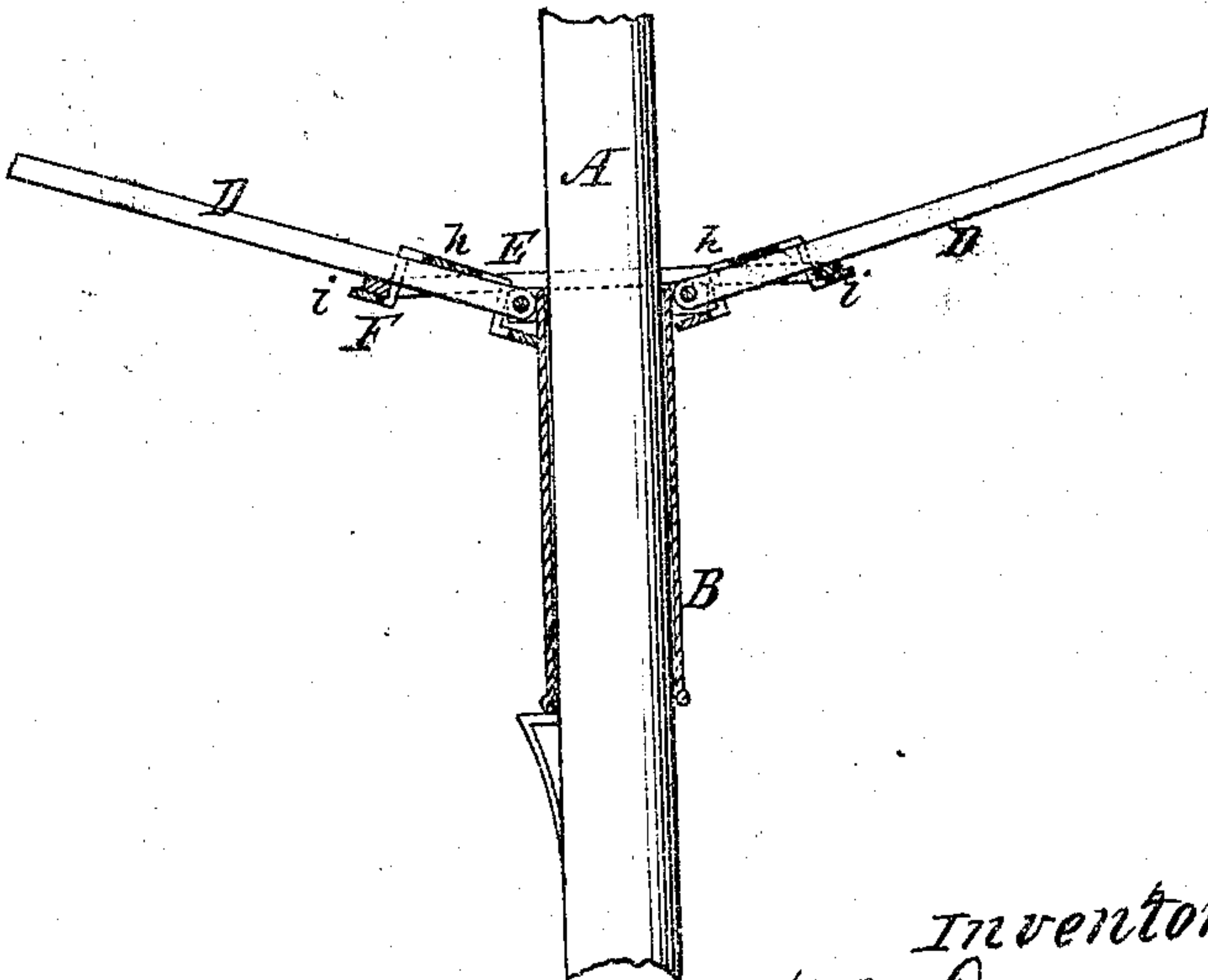


Fig. 3.



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IMPROVEMENT IN UMBRELLAS.

Specification forming part of Letters Patent No. 58,227, dated September 25, 1866.

To all whom it may concern:

Be it known that I, WILLIAM DAMEREL, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Umbrellas and Parasols; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents, partly in section, a skeleton or frame of an umbrella which contains my improvement. Fig. 2 is a cross-section representing the stretchers extended, as when an umbrella is raised. Fig. 3 is an elevation of part of the skeleton or frame, showing it when the stretchers are raised to their highest place on the handle. Fig. 4 is a detailed view of a device applied to the stretchers.

Similar letters of reference indicate corresponding parts.

The object of this improvement in umbrellas and parasols is to construct them so that when the runners are brought down on the sticks in shutting the article they shall remain in such closed condition without the usual catch or hook placed on the lower part of the stick or handle; and it consists in placing an elastic band or other suitable spring about the stretchers near to their places of connection with the runners, and also in means for securing such band or spring in place.

Among other advantages of this invention may be mentioned that the runner need not be slotted, as when a catch is used to hold it down near the end of the stick to keep the umbrella closed; also, that the stick will be left unimpaired in strength, because there will not be any slot made in it as in cases where it must receive the ordinary catch.

A designates the stick or handle of an umbrella. C are the ribs to which the covering is to be attached. The letters D designate some of the stretchers, which are pivoted or connected at one end to the ribs, and at their other ends to the flange of the runner B, in any suitable manner.

In umbrellas and parasols made in the usual way, the runner B is held down upon the stick A, so as to prevent the stretchers and ribs

from being expanded by means of a spring-catch secured in a slot made for it in the stick, and which projects above the edge of the slot far enough to engage a slot in the runner.

It is evident that if the slot in the runner is not in line with the catch they will not articulate, and consequently the umbrella is at liberty to fly open, the weight of the covering and ribs and stretchers sufficing to expand it, if the stick is held upright, as also will any accidental engagement of the covering or of the ends of any of the ribs with a passing obstacle. Furthermore, in the case of umbrellas and parasols made so that the parts which expand are free to have rotary motion on the stick, it is evident that before the runner can be engaged by the catch its slot must be brought into line with it. By my invention this difficulty also is obviated.

My object is to keep the ribs and stretchers close up to the stick when the umbrella is shut, and to insure that they shall remain in that condition until they are spread out by design; and my invention is applicable to umbrellas and parasols which have their stretchers and frames loose on their sticks, so as to be capable of rotating thereon, as well as to those whose frames are not capable of such rotary motion. I dispense with the usual spring-catch on the lower part of the stick, and consequently it is not necessary to make a slot in the stick to receive such a catch, and the stick is therefore left whole and with unimpaired strength. The usual slot in the runner is also dispensed with, and consequently the runner is left whole and unweakened.

In order to hold the frame of an umbrella or parasol in a closed condition, so that its own weight when held erect, or an accidental collision or engagement with a passing object, shall not spread it open, I have invented the following method and devices: I surround the stretchers above the places of their connection with the runner with an elastic band, E, of rubber or its equivalent, and I keep such band or equivalent appliance in place by means of a rest, F, of metal or other suitable material. The elastic band or spring in this example is simply placed around the stretchers, and its strength is to be such as to be capable of holding the frame snugly and compactly when the

umbrella or parasol is held upright, and also of resisting any slight or casual tendency from any passing object or obstruction to draw it open. The rest or support F is, in this example, struck up from a narrow metallic plate, in which, while in its flat state, two slots *g g*, are cut in line with each other, but separated by the solid part *h*, which is left in the middle of the blank. The blank is then struck up to the form shown in Fig. 4; or the slots *g g* may be made therein at the same time the blank is swaged or afterward.

Instead of making the rest F in the manner just described, it may be cast, or may be made of hard rubber or other suitable substance. The rests F, one for each alternate stretcher D, are placed on the stretchers before the latter are attached to the runner, by passing the ends of the stretchers through the slots *g g*, thereby bringing the solid part *h* on the inside of the stretchers, and the solid ends *i i* on the outside. The height of the rest—that is to say, the distance between the plane of its back and the plane of its flat ends *i*—is to be greater than the thickness of the stretchers, so that when the rests are in place there will be room for the elastic band E between the ends *i* and the outer side of the stretchers, as seen in Figs. 1 and 3.

When the umbrella or parasol is expanded the band E is stretched, as seen in Figs. 2 and 3, but it has no tendency to leave its place in the rests. When the umbrella is closed or shut the band assists the movement by con-

tracting upon the stretchers, and when they are fully closed the band holds them against the stick with constancy until a superior force is used upon the runner, so as to overcome the spring or tension of the band.

It will be observed that the band is disconnected from the stretchers, and that therefore they can be opened and closed without hindrance from the band other than from its tension, and also that the band is placed loosely between the upper ends, *i*, of the rests and the face of the stretchers, and is therefore free to operate without restraint.

The rests F operate somewhat after the manner of hooks, and instead of making them independently of the stretchers and placing them loosely thereon, as here shown, they may be formed on the stretchers, so as to form part thereof.

What I claim as new, and desire to secure by Letters Patent, is—

1. An umbrella held closed or shut by means of an elastic band placed around the stretchers of their frames, substantially as shown and described.

2. Rests F, as arranged, for holding the band or spring E in its proper place on or over the stretchers of an umbrella in all conditions, whether closed or extended, substantially as described.

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Witnesses:

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