

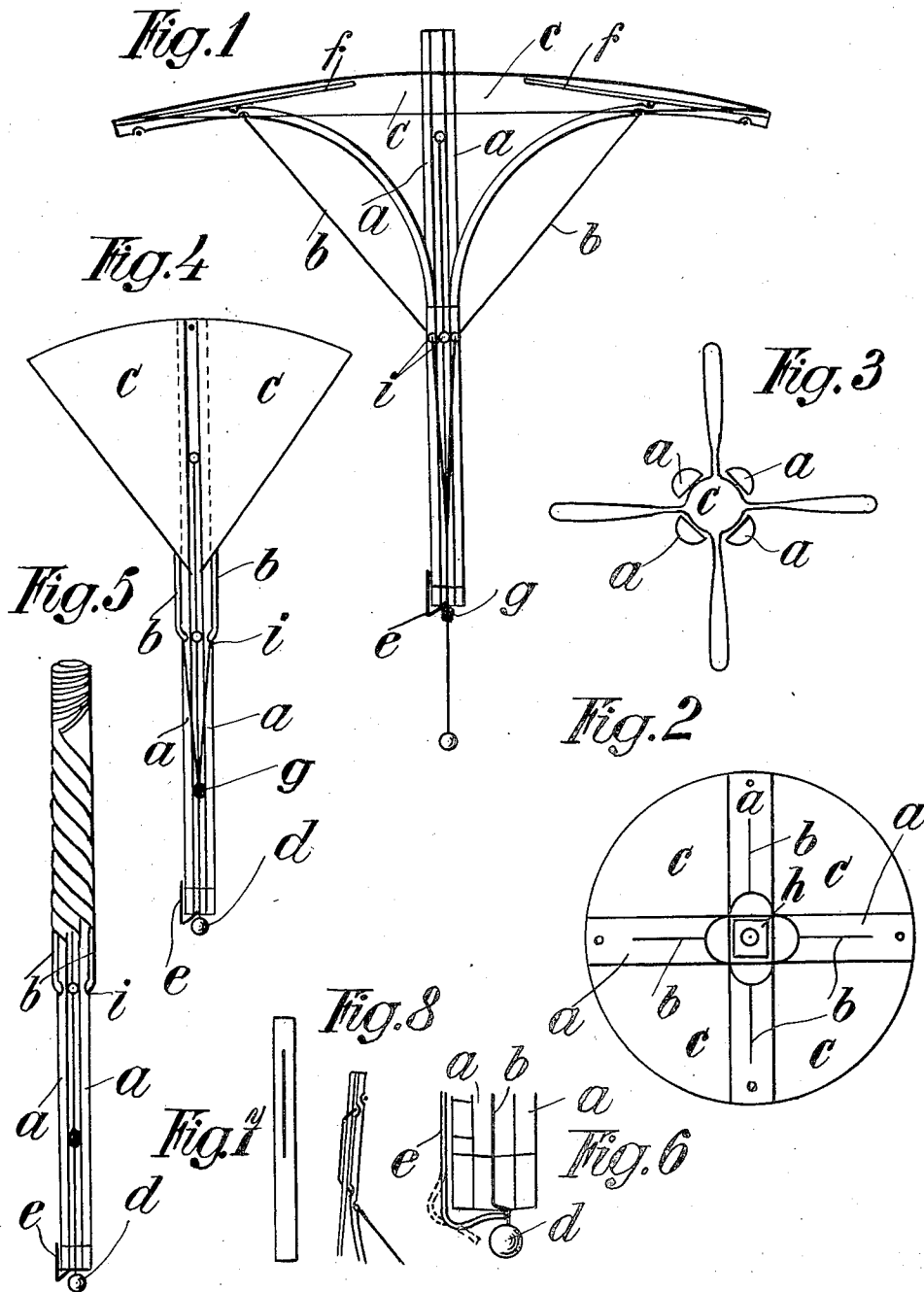
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UMBRELLA

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UMBRELLA

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1 Claim. (Cl. 135—20)

Umbrellas are known, the frame of which consists of a plurality of wires which at the same time form the handle and which are opened by separately bending down each roof rod and hooking it into the corresponding spreading rod.

This procedure is complicated and takes time. According to the invention the roof rods are connected with strings which extend through the interior of the stick so that all strings can be pulled by a handle to open the umbrella.

An embodiment of the invention is illustrated by way of example in the accompanying drawing in which:—

Fig. 1 shows the umbrella in open condition.

Fig. 2 is a bottom plan view of Fig. 1.

Fig. 3 is a top plan view of the folded umbrella.

Fig. 4 shows the umbrella in closed condition in elevation.

Fig. 5 shows the umbrella in rolled condition.

Fig. 6 shows the locking device.

Figs. 7 and 8 show the fixation of the roof to the roof rods.

The umbrella frame is composed of four cane rods *a* of semi-circular cross-section, the lower portions of which surround a perforated wooden core to which they are connected so that they form both the roof rods and also the stick.

The free ends of the cane rods forming the roof rods are connected with strings *b*. These strings extend through holes *i* into the interior of the stick where they are united by a knot *g*. A string surrounding this knot leads to a ball *d* which forms the handle. The four strings *b* are each fixed at their upper end to one of the roof rods *a*, extend through the cane bars *f* which support the cover, and are conducted towards the middle below the roof *c* and threaded through four holes *i* into the roof rods. The umbrella is opened by pulling the ball *d*. To maintain the umbrella in open position, a locking device is fitted on the

lower end of the four cane rods *a*. This locking device consists of a spring *e* which, when the string is pulled downwards, is pushed aside and on the string being released clamps the knot *g* against the cane bars *a*, thereby preventing the roof rods *a* which are under tension from returning into their initial position. To obtain a roof slightly sloping from the middle to the edge four thin cane bars *f* are provided which are secured at the upper end of each cane bar *a* with the paper or fabric cover *c* by the string *b*. The more the cane rods *a* are bent by pulling the strings *b*, the further the cane bars move in the opposite direction and thus press the roof upwards in the middle. A more simple form of construction consists in placing the round portion of the four cane rods *a* inwards thereby producing a hollow space so that the wooden core *h* may be omitted.

When it is desired to close the umbrella, it is only necessary to press aside the spring *e*, whereby the knot *g* of the strings *b* moves into the hollow space of the four cane rods *a* and the ball *d* bears against the opening of the cane rods *a*, the tension of the rods and of the cover *c* being thereby relieved. In rolled condition the cover *c* is rolled around the four cane rods *a* so that then the umbrella has the appearance of a stick (Fig. 5).

I claim:—

An umbrella, comprising in combination four cane rods forming a hollow stick and at their upper ends flexible roof rods, strings, severally connected at one end with each of said cane rods and extending through the hollow stick and interconnected at their other end, and a pull member connected to the united strings and adapted to spread said rods when pulled.

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