

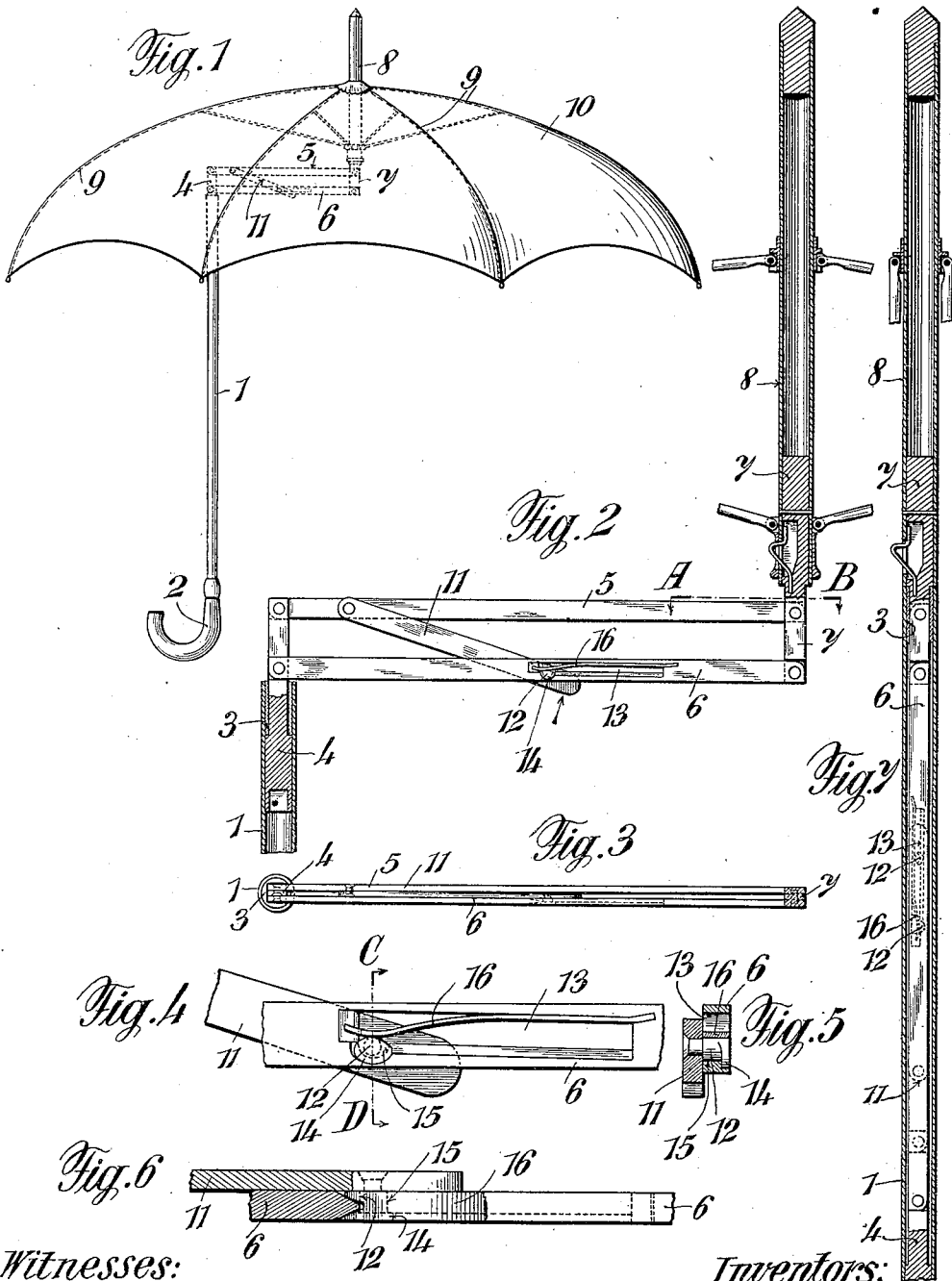
C. DUNNENBERGER & B. HEIERLE.

UMBRELLA ROD.

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1,042,658.

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Witnesses:

B. Rommers
E. Leckert.

Inventors:

Carl Dünnenberger,
Berta Heierle
By Henry Orth atty.

UNITED STATES PATENT OFFICE.

CARL DÜNNENBERGER AND BERTA HEIERLE, OF ZÜRICH, SWITZERLAND.

UMBRELLA-ROD.

1,042,658.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, CARL DÜNNENBERGER and BERTA HEIERLE, citizens of the Republic of Switzerland, residing at Zürich, Switzerland, have invented certain new and useful Improvements in Umbrella-Rods, of which the following is a specification.

This invention relates to an umbrella-rod and the object of the invention is to furnish the rod with an articulated parallelogram, which when folded can be inserted in the rod and to provide means for fixing the parts of the parallelogram in the position ready for use.

In the accompanying drawing, which illustrates the invention by way of example, Figure 1 shows an umbrella provided with a rod according to this invention, Fig. 2 is a side elevation showing the upper part of the rod with the parallelogram in the position of the umbrella ready for use. Fig. 3 is a plan view of the same, partly in section on line A—B of Fig. 2. Figs. 4 to 6 are detail views showing parts of the rod, Fig. 7 is a side elevation showing the parallelogram folded.

The hollow portion 1 of the umbrella rod is provided at one end with a handle 2. A bush 3 is secured to the other end of the portion 1, the opening of the bush being of rectangular cross-section. A bar 4 is mounted to slide in the portion 1, the lower part of which bar corresponds with the inside diameter of the portion 1, while the upper part of the bar is formed with rectangular cross-section to agree with the opening of the bush 3. By this means the bar 4 is prevented from being turned with regard to the portion 1 and from being removed from the latter. Two rods 5 and 6 are pivotally connected at one of their ends to the rod 4 and at their other ends to a bar 7, an articulated parallelogram thus being formed by the rods 5 and 6 and the portions of the bars 4 and 7 therebetween. The bar 7 is secured to the inside of the second portion 8 of the umbrella-rod, which portion carries the cover.

A link 11 is pivoted at one end to the bar 5, to which link is secured a pin 12 which is guided in a slot 13 provided in the rod 6. In order to prevent the pin 12 from being removed from the slot 13 it is provided with

a head 14 (Figs. 4 and 5). The slot 13 is formed at one end with a notch 15 into which the pin 12 is moved by the action of a plate spring 16 mounted in the guide 13. When the umbrella is ready for use the pin is held in the notch. The spring, which is secured to the opposite end of the guide, is guided by its dove-tailed end on the wedge shaped wall of the guide 13 (Fig. 6). The umbrella being in position ready for use the end of the link 11 which carries the pin 12 projects from the rod 6 so that by pressing on this end the pin 12 can be removed from the notch 15 and the parallelogram stretched.

By means of the device comprising the parts 11, 12 and 13 it is possible, as described, to fix the parts of the parallelogram in the position for use.

When closing the umbrella the parallelogram is inserted in the part 1, so that the length of the umbrella is about the same when opened and closed.

The rod according to this invention may of course, if desired, be used in connection with a parasol.

We claim:

1. In an umbrella-rod an opening in a part of the rod, an articulated parallelogram adapted when folded to be inserted in the said opening, a link pivoted to one member of said parallelogram, a slot provided in the opposite member of said parallelogram, a pin secured to said link and guided in said slot, and a spring acting on said pin.

2. In an umbrella-rod an opening in a part of the rod, an articulated parallelogram adapted when folded to be inserted in the said opening, a link pivoted to one member of said parallelogram, a slot provided in the opposite member of said parallelogram, a pin secured to said link and guided in said slot, a notch provided at one end of the slot, and a spring holding said pin in said notch in the position of the umbrella ready for use.

In testimony whereof we affix our signatures in presence of two witnesses.

CARL DÜNNENBERGER.
BERTA HEIERLE.

Witnesses:

CARL GUBLER,
ARNOLD LEHNER.