

Aug. 30, 1938.

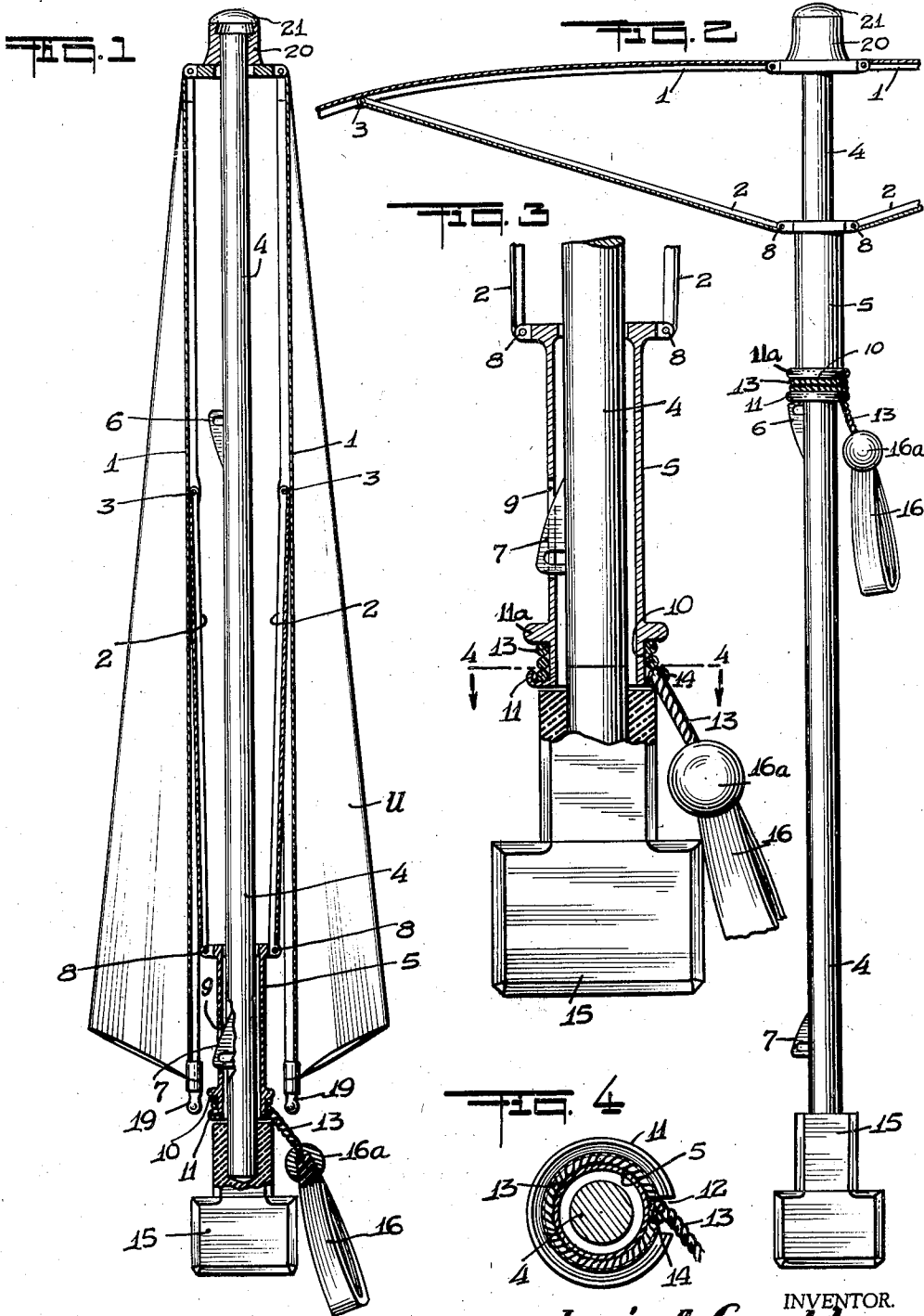
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2,128,634

UMBRELLA

Filed Aug. 5, 1937

2 Sheets-Sheet 1



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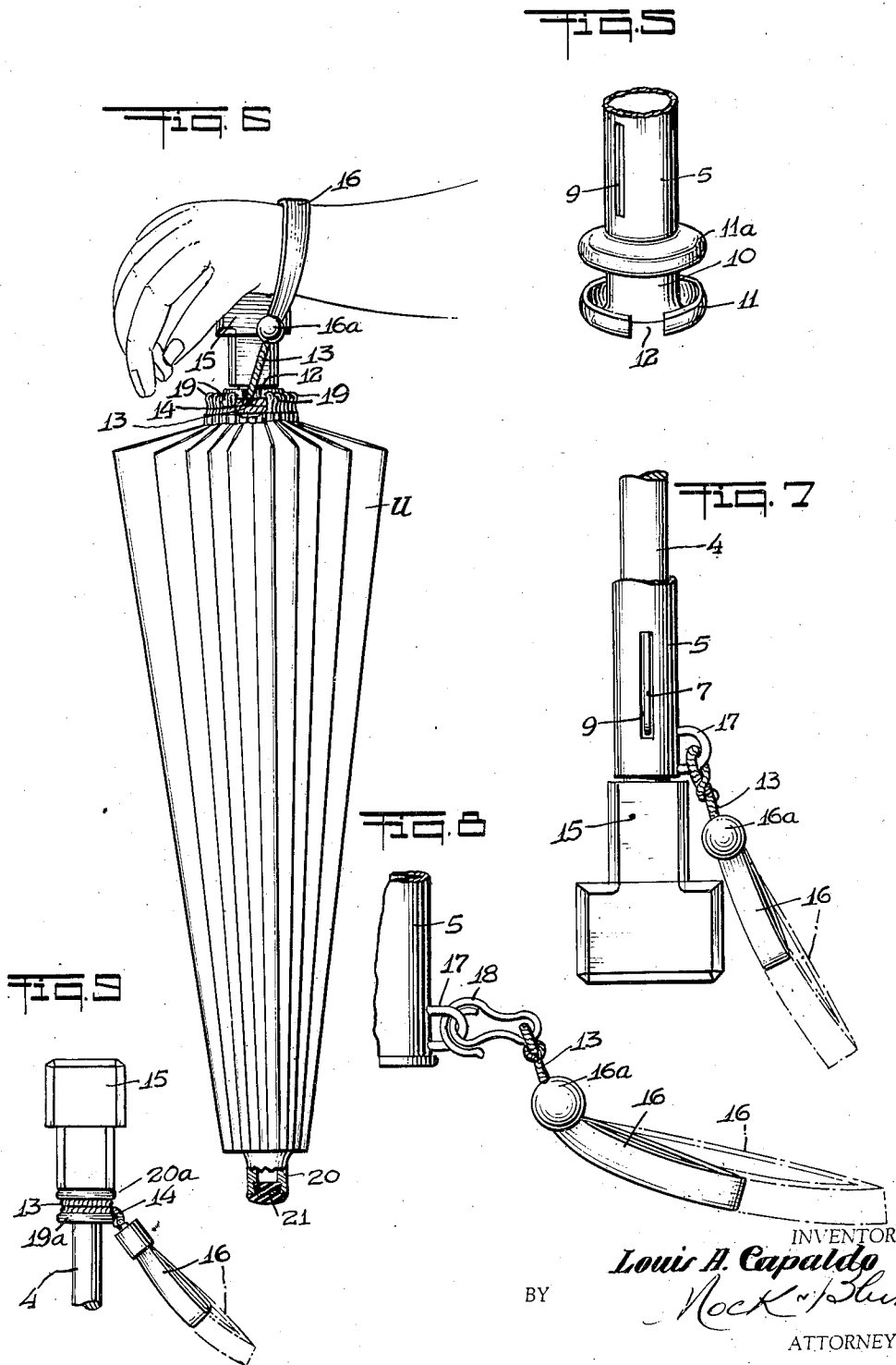
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UNITED STATES PATENT OFFICE

2,128,634

UMBRELLA

Louis A. Capaldo, New York, N. Y.

Application August 5, 1937, Serial No. 157,464

4 Claims. (Cl. 135—28)

My invention relates to a new and improved umbrella.

One of the objects of my invention is to connect the holding loop of the umbrella to the runner of the frame of the umbrella.

Another object of the invention is to provide a holding loop which is made of elastic material.

Another object of the invention is to provide a frame construction whereby the bottom end of the runner substantially abuts or is very close to, the upper end of the handle, when the frame is in the closed position.

Another object of the invention is to provide the ferrule of the umbrella with a tip made of resilient material.

Another object of the invention is to provide an umbrella of superior and graceful streamline appearance.

Other objects will be stated in the following description and drawings which illustrate a preferred embodiment thereof.

For convenience, the improved umbrella will be described with reference to the position shown in Fig. 1.

Fig. 1 is a front elevation, partially in section, the umbrella being shown in the vertical position with the handle of the umbrella at the bottom end of the stick. In this figure the frame of the umbrella is in the completely closed or collapsed position.

Fig. 2 is a detail elevation, partially in section, showing the frame of the umbrella in its fully opened or extended position.

Fig. 3 is a detail elevation, partially in section, showing the construction of the improved runner.

Fig. 4 is a section on the line 4—4 of Fig. 3.

Fig. 5 is a perspective view of the lower part of the improved runner.

Fig. 6 is a perspective view showing the umbrella suspended from the wrist of the user.

Fig. 7 is a detail perspective view of the handle and of the runner, showing modified means for connecting the holding member to the runner.

Fig. 8 is a detail elevation showing second modified means for connecting the holding member or holding loop to the runner of the umbrella. The holding member may be a loop, or it may be of any type.

Fig. 9 is a detail elevation showing a holding loop made of elastic material, connected directly to the stick of the umbrella.

The frame of the umbrella comprises a stick 4 having the usual tip or ferrule 20, which is connected to the stick 4 in any suitable manner. As shown more specifically in Fig. 6, the ferrule or

tip 20 is hollow and its open end is provided with an insert 21, which can be made of vulcanized and resilient rubber. Said insert 21 can be molded and vulcanized into position. This resilient insert 21 provides a resilient tip for the frame of the umbrella, so as to guard the frame against shocks.

The ribs 1 are pivotally connected to a flange of the tip 20 in the usual manner. Spreaders 2 are pivotally connected at 3 to the ribs 1, and said spreaders 2 are also pivotally connected at 8 to the head of the runner 5. The runner 5 is provided with the usual slot 9 and the stick 4 is provided with the usual latches 6 and 7. These latches 6 and 7 are movable into the interior of the stick 4, and said latches 6 and 7 are held yieldingly in the position illustrated in Fig. 2 by the usual spring means.

I have not shown the details of construction of the latches 6 and 7, as these details are old and well known.

As shown in Fig. 5, the runner 5 is provided with collars 11 and 11a. The collar 11 is made by suitably bending the material of the runner 5, which may be any suitable sheet metal. The collar 11a may be connected to the runner 5 in any suitable manner.

The runner is provided with a shank 10 between the collars 11 and 11a. The collars 11 and 11a and the shank 10 could be made by spinning or turning a suitable metal blank, and the piece which is thus formed can be connected to runner 5. The collar 11 is cut away at 12 so as to provide a radial recess.

In the embodiment illustrated in Figs. 1 and 2, the holding loop 16 is preferably made of elastic rubber and the ends of said loop 16 are located in the recess of a bead or ball or other rigid member 16a which is made of metal or "Celluloid" or other suitable material.

The ends of loop 16 may be stitched or otherwise connected (as by adhesive) to a flexible cord 13, which may be stretchable or non-stretchable. The cord 13 is then pulled through the opening of ball 16a, so that the cord and the inner end of loop 16 are located as shown in Fig. 1. The ball 16a has two communicating recesses of different sizes, as shown in Fig. 1, so that the inner end of the loop cannot be pulled too far. Cement or other adhesive may be used for connecting ball 16a to the cord 13 and the inner end of loop 16.

The cord 13 is knotted at 14 or otherwise suitably secured to the shank 10. This knot 14 is located in or near the radial recess 12.

The handle 15 is made of any suitable material and it is connected in any suitable manner to the bottom end of the stick 4.

When the frame is in the collapsed condition, the bottom end of the runner 5 may substantially abut or be very close to the upper end of the handle 15. This facilitates the opening of the frame of the umbrella and the cord 13 provides an additional guide whereby the user can readily grasp the runner 5.

As shown in Fig. 6, the elastic loop 16 can be stretched so as to fit firmly over the wrist of the user so that the umbrella is held firmly. Likewise, the hand of the user can rest upon the grip of the handle 15. The weight of the umbrella therefore keeps the frame in the closed position and the knot 14 serves to hold the cord 13 firmly to the runner.

In the construction shown in Fig. 7, the runner is provided with a lug 17 through which the cord 13 is led. The cord 13 can be suitably knotted around the lug 17.

In the frame shown in Fig. 8, the cord 13 is suitably connected to a springy connecting member 18, which is linked to the lug 17.

Fig. 9 shows the cord 13 connected either to the stick or to the handle of the umbrella. A member similar to that shown in Fig. 5, having collars 19a and 20a, and an intermediate shank, can be spun out of a piece of metal or other material, and such member can be connected either to the stick or to the handle.

The ribs of the umbrella are provided with the usual tips 19.

By means of this construction the weight of the umbrella automatically moves the ribs inwardly as far as possible so that the closed umbrella has a graceful and streamline appearance.

The covering U of the umbrella can be of any suitable type.

The ordinary runner is about 1¼ inches long, in an umbrella whose rib size is from 18 inches to 19 inches. The improved runner, including shank 10 and collar 11 may have a length of 2½ inches in an umbrella of this size.

An important feature is the use of an elastic loop, which is quite short when it is untensed. Said loop may have a length of from 2½ inches to 3 inches when it is untensed. Hence, when the frame of the umbrella is extended and the loop is untensed (Fig. 2) the loop is sufficiently short to prevent contact with the head or eye of the user. This makes allowance for the extra length of the runner.

The resilient rubber insert is a valuable feature. Since the runner is close to the handle when the frame is collapsed, (Fig. 1) a sharp end blow on the ferrule of the stick would knock the ribs and spreaders out of alignment, and throw them out of the grooves in which they are pivotally located. By using a resilient rubber insert, this is prevented. In an ordinary umbrella,

the runner cannot strike the handle when the tip of the stick is struck against the ground.

When the loop 16 is in the position shown in Fig. 6, said loop is tensed so that the top of the handle of the umbrella is pressed firmly against the hand or wrist of the user.

It is to be understood that the spreaders 2 have their inner ends located in radial recesses, and that the usual wire, represented by the reference numeral 8, is passed through suitable holes in the inner ends of said spreaders, and through corresponding holes which are provided in the radial teeth or projections of the head of the runner 5. This construction is customary and well known. Similar means are used for pivotally connecting the inner ends of the ribs 1 to the head of the tip 20.

As shown in Fig. 1, when the frame of the umbrella is closed, the latch 7 extends only through a part of the slot 9.

Since the tip or ferrule 20 in effect forms a part of the stick 4, the ribs 1 are in effect pivotally connected to said stick.

I have shown preferred embodiments of my invention, but it is clear that numerous changes and omissions could be made without departing from its spirit.

I claim:—

1. An umbrella having a stick, a runner slidably mounted on said stick, spreaders pivotally connected to said runner, ribs pivotally connected to said stick and to said spreaders, a holding loop made of elastic material, and a cord connecting said holding loop to said runner, said holding loop being operative to slide said runner along said stick.

2. An umbrella having a stick, a runner slidably mounted on said stick, spreaders pivotally connected to said runner, ribs pivotally connected to said stick and to said spreaders, and a holding loop suspended from said runner and adapted to slide said runner along said stick.

3. An umbrella having a stick, a runner slidably mounted on said stick, spreaders pivotally connected to said runner, ribs pivotally connected to said stick and to said spreaders, a pair of collars on the outer end of said runner, a cord having one of its ends embracing said runner between said collars, and a holding member connected to the other end of said cord.

4. An umbrella having a stick, a runner slidably mounted on said stick, spreaders pivotally connected to said runner, ribs pivotally connected to said stick and to said spreaders, a first collar on said runner, a second collar on said runner, said second collar having a cut-out radial portion, a cord having one of its ends embracing said runner between said collars and having the other of its ends extending through the cut-out radial portion of said second collar, and a holding member made of elastic material connected to said other end of said cord.

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