B. E. SUTLIVE.

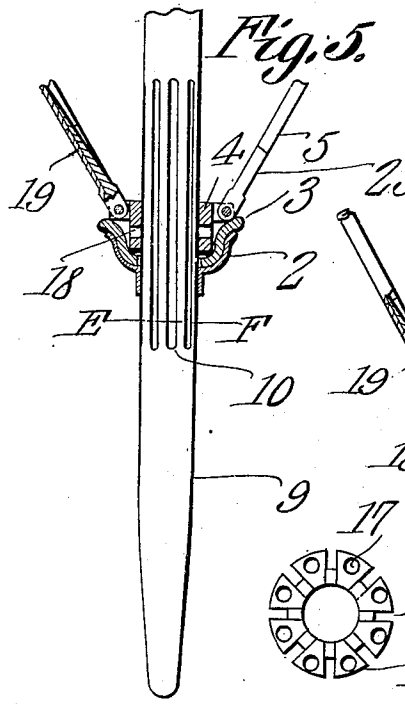
UMBRELLA.

APPLICATION FILED DEC. 3, 1909.

980,849.

Patented Jan. 3, 1911.

Fig. 5.



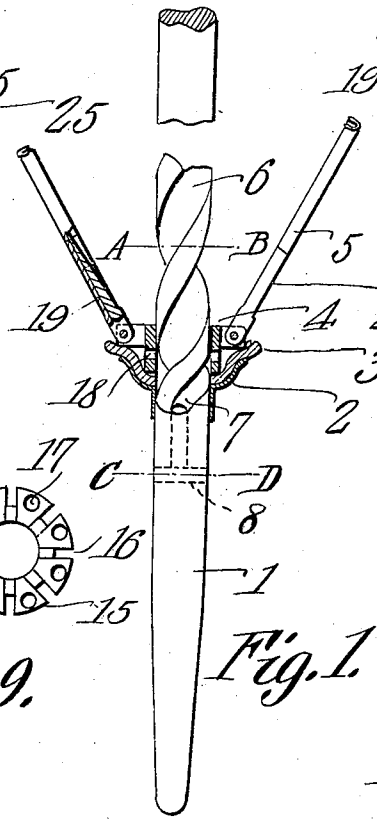


Fig. 1.

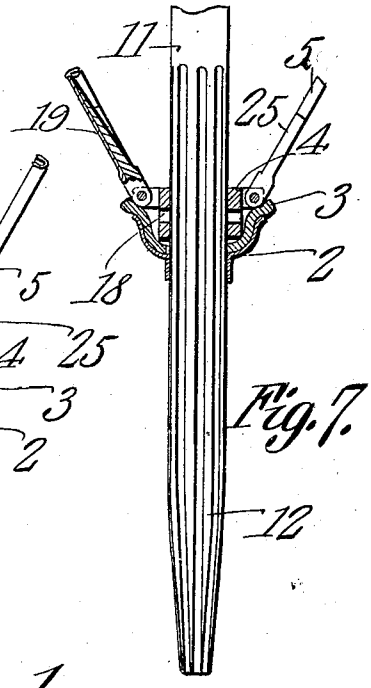


Fig. 7.

Fig. 9.

Fig. 6.

Fig. 8.

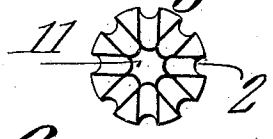


Fig. 2.

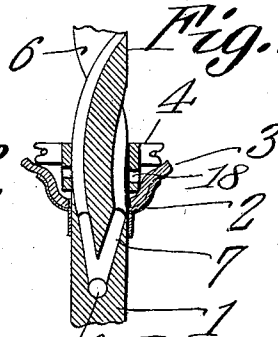


Fig. 3.

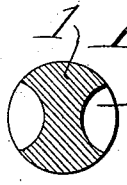


Fig. 4.

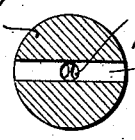
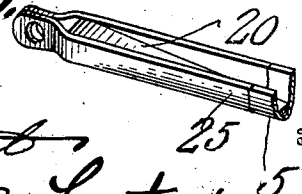


Fig. 10.



Witnesses

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UNITED STATES PATENT OFFICE.

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UMBRELLA.

980,849. Specification of Letters Patent. Patented Jan. 3, 1911.

Application filed December 3, 1909. Serial No. 531,200.

To all whom it may concern:

Be it known that I, BIRDWELL E. SUTLIVE, a citizen of the United States, residing at Keokuk, in the county of Lee and State of Iowa, have invented a new and useful Umbrella, of which the following is a specification.

It is the object of this invention to provide a staff for an umbrella, so constituted that any moisture which may be contained within the umbrella after the same is folded up and stood in an upright position, may readily be drained away between the staff and the notch, and through the staff.

It is to be understood that the drawings show preferred embodiments merely, and that changes, properly falling within the scope of what is claimed, may be made, without departing from the spirit of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings, wherein;—

Figure 1 is a side elevation of a portion of an umbrella staff constructed in accordance with my invention, parts being shown in section; Fig. 2 is an enlarged sectional detail of the staff, adjacent the notch; Fig. 3 is a transverse section on the line A—B of Fig. 1; Fig. 4 is a transverse section on the line C—D of Fig. 1; Fig. 5 is a side elevation, partly in section, of a modified form of my invention; Fig. 6 is a transverse section on the line E—F of Fig. 5; Fig. 7 is a side elevation, partly in section, of a further modification of the invention; Fig. 8 is a bottom plan of the device shown in Fig. 7; Fig. 9 is a top plan of the notch; and Fig. 10 is a perspective of one end of the rib.

Referring to Fig. 1 of the drawings, the staff of the umbrella is denoted by the numeral 1. Mounted upon the staff 1 and secured thereto in any desired manner is a cap 2, of well known construction, upon which is superposed a washer 3, the notch 4 being in abutment with the washer 3. With the notch 4 are assembled the ribs 5, the construction being common and well known. In the form shown in Fig. 1, the staff 1 is provided with spirally disposed channels 6, located in the exterior face of the staff 1 and terminating adjacent the cap 2. From these channels 6, converging openings 7 extend into the interior of the staff, to meet in the axis of the staff. These converging openings 7 communicate with a transverse opening 8 extending entirely through the staff 1.

In Fig. 5 of the drawings, a modification of the invention is shown. The staff, in Fig. 5, is provided with a plurality of superficial, longitudinally extending channels 10, the channels terminating upon opposite sides of the notch 4. These channels 10 may be extended along the staff 9 toward the handle of the umbrella for any desired distance, and are terminated upon the opposite side of the notch 4, between the notch and the tip of the staff 9.

In the form of the invention disclosed in Fig. 7 of the drawings, the staff 11 is provided with channels 12, which, like the channels 10 of Fig. 5, are disposed upon the exterior of the staff, longitudinally of the staff. In the form shown in Fig. 7, however, the channels 12 are carried to the extreme tip of the staff 11.

After an umbrella has been thoroughly soaked, should the same be folded up and stood in upright position, the moisture upon the cloth commonly finds its way downward, and lodges in and is retained in the cloth nearest the point of the umbrella and in the cap 2, long after the cloth nearest the handle has become dry. When the umbrella is again picked up, the contents of the cap 2 are spilled back again into the cloth, whereby the same is unnecessarily moistened, and frequently discolored from the rust occasioned by the moisture's having corroded adjacent metal parts. It will be seen that in all of the forms of the invention shown, the several channels are so disposed that they will effectively drain the cap 2 from any water which may have found its way therein. The several channels are so constructed that they are adapted to receive, above the notch 4, when the umbrella is stood upright, any moisture which may collect upon the staff 1, or find its way to the cap 2, and conduct such moisture below the cap 2, thus keeping the interior of the umbrella at all times in a dry condition and preventing a deterioration of the component parts of the umbrella.

Passing to a specific description of the notch 4, and referring to Figs. 1, 5 and 7, it will be seen that the staff-inclosing portion of the notch is provided with a transverse, unencumbered opening 18, it being understood that there may be any number of these

openings in the staff-inclosing portion of the notch. By referring to Fig. 9, it will be seen that the outstanding flange 15 of the notch is provided, between its rib-receiving openings 16, with apertures 17. That end of the rib 5 which is mounted in the opening 16 in the notch, is filled in with soft metal, 19, or the like, to define, as shown in Fig. 10, an inclined wall 20, extending longitudinally of the rib from the bottom of the rib to the upper edges thereof, the word "upper" presupposing that the umbrella is disposed as shown in Figs. 1, 5 and 7 of the drawings, the said inclined wall 20 being in contact with the side walls of the rib.

Owing to the hereinbefore described construction of the ribs and of the notch, it will be seen that any moisture which may be included between the side walls of the rib 5 will follow the inclined wall 20, and be precipitated upon the notch, the moisture passing, either through the opening 17 into the member 2 in the one case, or through the openings 18 into the longitudinally disposed channels of the staff in the other case, the moisture thus passing into the member 2, however, ultimately finding its way out of the longitudinally disposed channels in the staff. In making the openings 18 in the notch, these openings are preferably alined with one of the channels 10, 6 and 12 of the several figures of the drawings.

If desired, as clearly shown in the drawings, the rib 5 may terminate in a head 25, fashioned from some non-corrosive material, so that the end of the rib which is adjacent the notch, will not become rusted or deteriorate.

From the foregoing it will be seen that the construction of the device is such that the ribs, in the first instance, are well adapted to drain their contents upon the notch or into the member 2, the notch being perforated in different directions so that it will be ineffective to retain moisture, and the longitudinally disposed channels in the staff serving effectively to drain both the notch 4 and the member 2.

The device, although intended primarily to drain an umbrella when the same is set upright, with the point of the staff downward, or, indeed, in any other position, serves at the same time, as a means for effectively ventilating the interior of the structure, promoting the drying out of the device, after the occasion for its use has passed.

Viewed as an entity, the umbrella is so constructed that when the same is folded up and set away, the possibility for any moisture being retained in the umbrella is extremely slight.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a staff and a notch mounted upon the staff, the staff being provided with a drainage channel having outlets upon opposite sides of the notch.

2. In a device of the class described, a staff and a notch mounted upon the staff, the staff being provided upon one side of the notch with a superficial drainage channel having an opening upon the other side of the notch.

3. An umbrella notch having an outstanding flange provided with rib-receiving openings, and apertures extending entirely through the flange between the openings.

4. An umbrella notch having an outstanding flange provided with rib-receiving openings, and apertures extending entirely through the flange between the openings, the notch being provided with a free, transverse opening in its staff-receiving portion.

5. In a device of the class described, a staff and a notch mounted upon the staff, the staff being provided with a drainage channel terminating upon opposite sides of the notch, the notch being provided with a transverse opening communicating with the channel.

6. In a device of the class described, a staff and a notch mounted upon the staff, the staff being provided with a drainage channel terminating upon opposite sides of the notch, the notch having an outstanding flange provided with rib-receiving openings, and apertures extending entirely through the flange between the openings, the notch having a free, transverse opening in its staff-receiving portion, adapted to communicate with the channel; and a rib assembled with the notch, the rib having at its notch-engaged end, a wall inclined longitudinally of the rib from the bottom of the rib to the upper edges thereof, the wall contacting with the side walls of the rib.

7. An umbrella structure including a staff and a notch mounted upon the staff, in which structure there is a drainage channel permitting liquid to pass between the notch and the staff, the channel having outlets upon opposite sides of the notch.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

BIRDWELL E. SUTLIVE.

Witnesses:

F. W. DAVIS,

HOWARD W. WOOD.