April 10, 1945. J. F. ROBERTS 2,373,339

UMBRELLA STAND

Filed Oct. 6, 1943

Fig 1

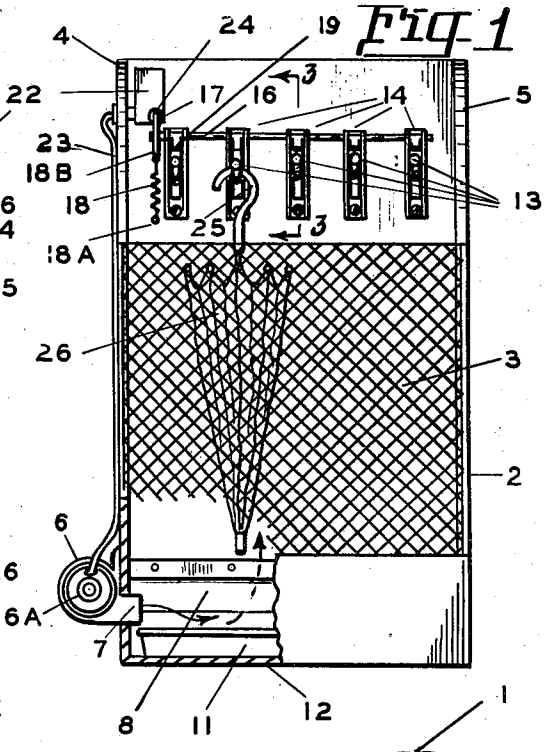


Fig 2

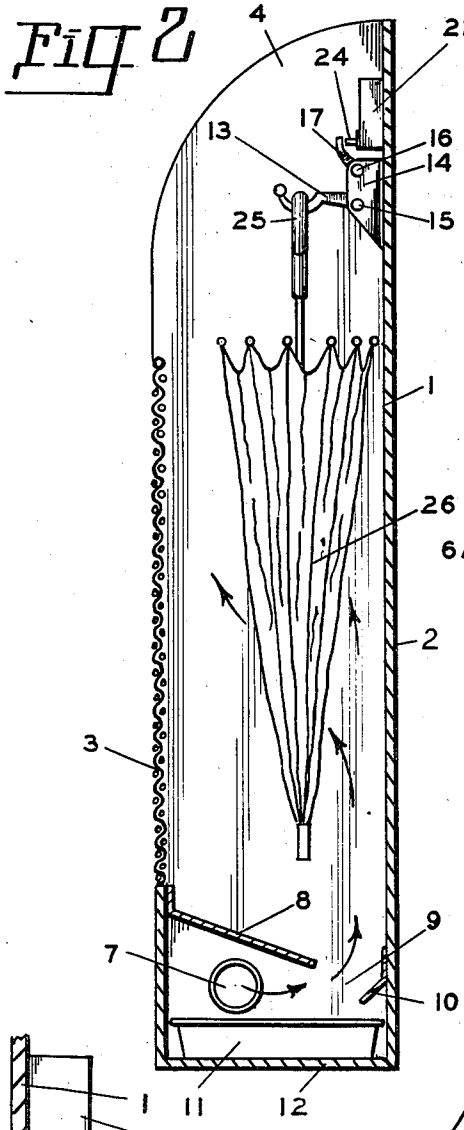


Fig 3

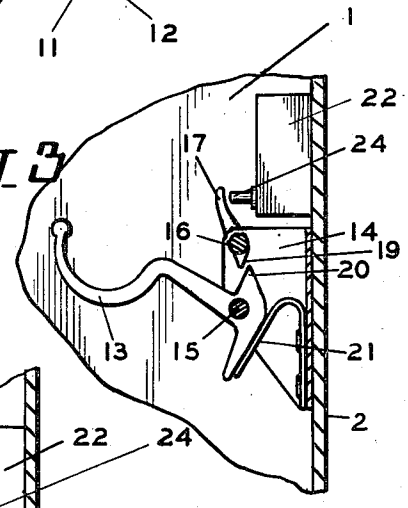


Fig 5

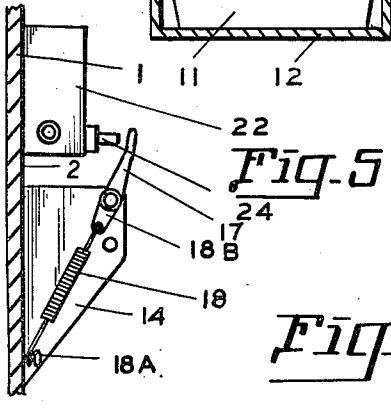
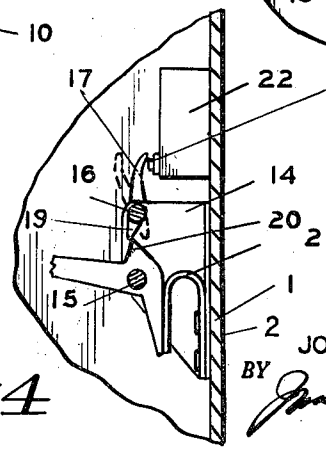


Fig 4



INVENTOR.
JOHN F. ROBERTS
BY
Atty

Patented Apr. 10, 1945 2,373,339

UNITED STATES PATENT OFFICE

2,373,339

UMBRELLA STAND

John F. Roberts, Portland, Oreg., assignor of forty-nine per cent to Lee O. Stephens, Portland, Oreg.

Application October 6, 1943, Serial No. 505,224

7 Claims. (Cl. 34—53)

This invention relates to umbrella stands and is particularly adapted for holding and drying umbrellas.

The primary object of my invention is to construct an umbrella stand that can be set on the floor or be hung on the wall that will display the umbrella, at the same time remove water and moisture. The object of displaying the umbrella indirectly is for the convenience of selecting each individual's umbrella, and at the same time providing a means of holding the umbrella within the confines of the cabinet or stand.

Another object of my invention is the provision of an air circulating means within the stand that can be set into operation for a period of time sufficient to remove the moisture from the umbrella.

These and other incidental objects will be apparent in the drawing, specification and claims.

Referring to the drawing:

Figure 1 is a front view of my new and improved umbrella stand, partially broken away for convenience of illustration.

Figure 2 is a sectional view taken through the stand illustrating its general structure.

Figure 3 is a fragmentary detailed sectional view, taken on line 3—3 of Figure 1, looking in the direction indicated.

Figure 4 is a further detail of Figure 3 illustrating a different operating position.

Figure 5 is a side elevation partly in section showing the means for normally holding the switch arm 17 in inoperative position.

In the drawing:

My new and improved umbrella stand consists of a case 1, having a solid wall 2 and a front wall consisting of a screen 3. Solid sides 4 and 5 and a bottom 12 make up the general structure of the stand. Mounted to the stand is a suitable air blower 6, driven by a motor 6A. This blower may be of any suitable well known structure, as the purpose is to circulate air through and out of the stand from an air jet 7 connected to the blower. A baffle plate 8 provides a restricted opening 9 between the baffle plate 8 and the water deflector 10. By restricting the opening 9 an even pressure may be developed throughout the width of the stand. The baffle 8 and the deflector 10 direct water dripping from the umbrella 26 to a receiving pan 11.

I have provided a special holding hook 13, pivotally mounted within a bracket 14 at 15. A cross shaft 16 is pivotally mounted to the bracket 14 and has an arm 17 fixedly secured to the shaft at one of its ends. This arm is for operating an electrical switch box, which will be described later.

Forming part of the hook 13 is an outwardly extending cam 20, which engages the cam 19 which is fixedly mounted to the shaft 16. When the outer end of the hook 13 is lowered by the weight of the umbrella, the cam 20 forces the cam 19 to the position shown in Figure 4, after which the cam 20 passes the cam 19 allowing the arm 17 to return to the dotted position. It is only required that the arm 17 momentarily depress the plunger 24 of the switch 22, operating the said switch in the following manner.

I do not claim any structural features of the switch box, but it must be a switch arrangement that when the plunger 24 is operated it will close the electric circuit through the electric conductor 23 to the motor 6A, maintaining this circuit by an automatic control means within the switch that will hold the switch closed for a predetermined time, after which the switch will be automatically opened. A similar type of switch is shown in U. S. Patent No. 1,471,512, dated October 23, 1923. The object of this automatic switch action is to operate the fan 6 only sufficient length of time to dry the last umbrella placed on the hook 13. When the umbrella is removed from the hook the switch 22 will not be affected, as the cam 20 merely trips the cam 16 in a direction so as to force the arm 17 away from the plunger 24 thereby in no way affecting the switch.

The arm 17 is held away from the plunger 24 by the spring 18, which has one of its ends connected to the arm 18B and the opposite end to the point 18A, as stated before when the hook 13 is forced downward by the weight of the umbrella the cam 20 contacts the cam 19 forcing the lever 17 towards the plunger 24, then passing the cam 19 allowing the arm 17 to be released from against the plunger 24 while the hook remains lowered by the weight of the umbrella. This permits the switch assembly 22 to automatically open and the plunger 24 to return to starting position.

A spring 21 maintains the hook 13 in a raised position until the weight of the umbrella is placed thereon. The screen 3 provides a finish and ornamental front to the stand, at the same time permitting the circulation of air therethrough from within the stand and at the same time providing a means for confining the umbrellas within a given space. The screen also allows the owner of the umbrella to more easily pick out his property from among the others.

In the operation of my new and improved um-

brella stand when an umbrella is placed on the hook the circulating motor is started, driving the ventilating fan, drying the umbrella and after a given period of time an automatic switch control heretofore described turns the motor off without any further thought given by the user of the stand.

What is claimed as new is:

1. An umbrella stand, comprising a case, individual umbrella supporting hooks in said case, a screen section forming the front of the case and having a height at least to completely display the full fabric length of the suspended umbrellas, means for forcing a current of air longitudinally of the suspended umbrellas, and means controlled by said hooks for inaugurating operation of said air forcing means.

2. An umbrella stand, including a case, a plurality of umbrella-supporting hooks on the case and movable under the weight of the applied umbrella, a screen front for the case, means for forcing air lengthwise the case and among the suspended umbrellas, said means including an electric motor, and a switch for the motor to be closed to energize the motor in the movement of a hook under the weight of the applied umbrella.

3. An umbrella stand, including a case, a plurality of umbrella-supporting hooks on the case and movable under the weight of the applied umbrella, a screen front for the case, means for forcing air lengthwise the case and among the suspended umbrellas, said means including an electric motor, and a time-limit switch for the motor to be closed to energize the motor in the movement of a hook under the weight of the applied umbrella.

4. An umbrella stand, including a case, a plurality of umbrella-supporting hooks on the case and movable under the weight of the applied umbrella, a screen front for the case, means for forcing air lengthwise the case and among the suspended umbrellas, said means including an electric motor, and a time-limit switch for the motor to be closed to energize the motor in the movement of a hook under the weight of the applied umbrella, the switch being relieved of hook influence prior to the final position of the hook under the weight of the applied umbrella.

5. A construction as defined in claim 3, wherein a baffle is arranged near the lower end of the case to direct the air forced by said motor lengthwise the case in rear of the suspended umbrellas.

6. An umbrella stand, including a case, a shaft mounted for movement transverse and near the upper end of the case, umbrella-supporting hooks mounted for free swinging below said shaft, air-pressure means including an electric motor for delivering air lengthwise the case, a switch for controlling said motor, a switch-closing arm fixed to said shaft, and means whereby umbrella-weight operation of a hook will operate said shaft to compel switch-closing movement of said arm.

7. An umbrella stand, consisting of a base, having a screen front, an air circulating device in said stand, an automatic time switch box for inaugurating the operation of said air circulating device, and umbrella holding hooks having means connected with the hooks for operating said automatic time switch box.

JOHN F. ROBERTS.