Jan. 3, 1956 W. SMYRNOW 2,729,220

REVOLVING FAN PARASOL

Filed Nov. 2, 1953

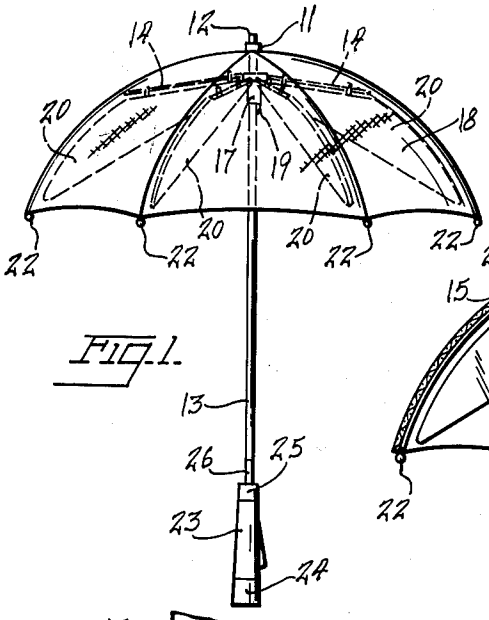


FIG. 1.

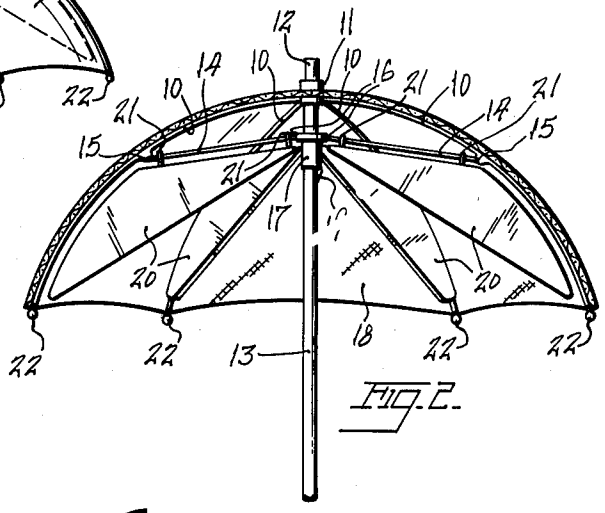


FIG. 2.

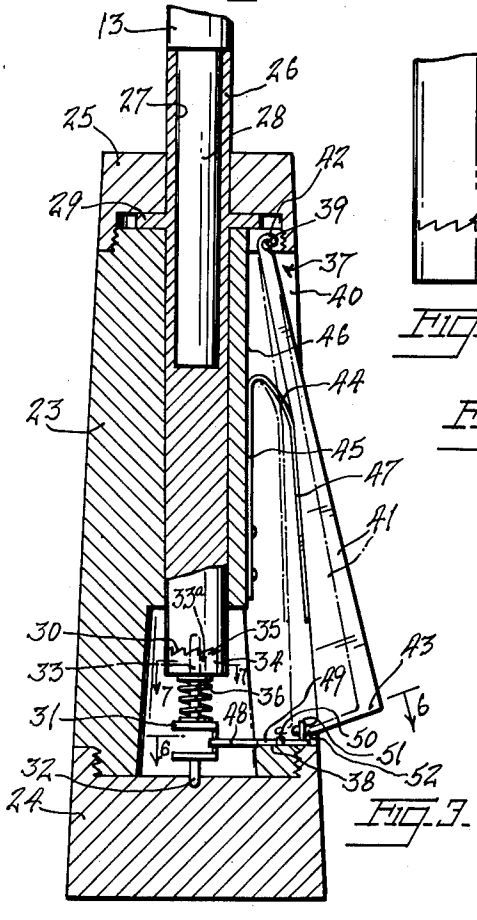


FIG. 3.

FIG. 4.

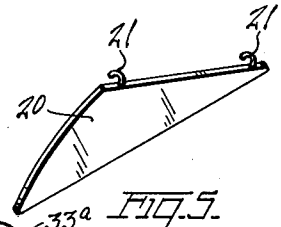


FIG. 5.

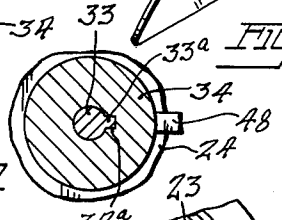


FIG. 7.

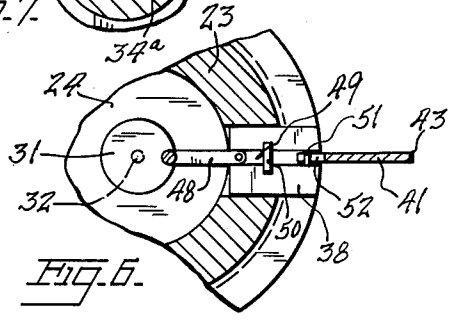


FIG. 6.

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REVOLVING FAN PARASOL

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9 Claims. (Cl. 135—16)

This invention relates to new and useful improvements in parasols.

On many occasions when using a parasol it is necessary, in order to avoid discomfort, to protect oneself against the temperature as well as the sunshine. With this in mind, the primary object of the present invention is to provide a parasol with apparatus for creating a current of air directed over the body of the user of the parasol.

Another object of the invention is to provide a parasol with apparatus for creating a current of air which is readily actuated by the fingers of the hand of the user that holds the parasol.

A further object of the invention is to provide a parasol with apparatus of this kind which is inconspicuous and which is highly efficient in operation.

It is further proposed to produce a parasol with apparatus of this kind which is simple and rugged in construction and which can be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a side elevational view of a parasol embodying my invention.

Fig. 2 is a sectional view of the top of the parasol.

Fig. 3 is an enlarged vertical sectional view of the handle portion of the parasol.

Fig. 4 is a fragmentary elevational view of the connection between the stick of the parasol and the driving member for rotating the stick.

Fig. 5 is a side elevational view of an air agitating web or wing member.

Fig. 6 is an enlarged cross-sectional view taken on the plane of the line 6—6 of Fig. 3.

Fig. 7 is another enlarged sectional view taken on the line 7—7 of Fig. 3.

The frame of the parasol is of the usual construction comprising ribs **10** pivotally connected to an upper collar **11** fixed near upper end **12** to stem or stick **13**. Braces **14** are pivotally connected at one end **15** to the ribs and at the other end **16** to runner **17** encircling the stem or stick **13** and capable of sliding thereover. The cover **18** preferably of flexible fabric material is fixed to ribs **10**. Catch **19** pivotally mounted and connected in a slot in the stem or stick **13** has an outward spring movement for securing the lower runner **17**, ribs **10**, braces **14** and cover **18** in an elevated position, as shown in Fig. 1.

According to the present invention, webs or wing members **20** are secured at one end to the runner **17** by hooks **21** secured to one end of the webs, and at their opposite ends they are stitched to the tips **22** of the ribs. Intermediate their ends, the webs or wing members are connected to the ribs at their juncture with the braces **14**

so that the upper end edges of the webs or wing members extend along the braces and along the ribs from the ends of the braces outwardly thereof to the tips **22**. The webs fold with the cover upon closing the parasol.

The movement of the air is created as by the webs or wing members **20** being transversely vertically inclined and rotated with the top of the parasol including the cover, ribs and braces. Such rotation of the parts is accomplished by rotation of the stem or stick **13** at the handle portion thereof.

For rotating the stem or stick I provide apparatus carried by a tubular handle **23** closed at its outer end by a plastic cap **24** screw threaded onto the handle, and at its inner end by a plastic cap **25** screw threaded onto the inner end of the handle. An elongated plug member **26** is rotatably mounted in the handle and has a square-shaped socket portion **27** opening toward the top of the parasol for receiving the reduced bottom end **28** of the stick or stem **13**. The plug member is formed with a flange **29** inwardly of its top end which loosely seats on the top end of the handle and positioned between said top end and the inner cap **25** to hold the plug member in the handle. The bottom face of the plug member is formed with ratchet teeth **30**.

A crank device **31** is pivotally supported on the inner face of the outer cap **24** of the handle by a pivot pin **32** formed integrally therewith. The crank device is formed with an upstanding lug **33**, and slidably supported on the lug **33** is a cylindrical clutch member **34** having ratchet teeth **35** on its upper face adapted to mesh with the teeth **30** on the plug member **26**. A pressure coil spring **36** encircles the lug **33** and has one end seated on the top of the crank device and has its other end impinging against the bottom face of the clutch member **34** for urging the ratchet member with its teeth **35** upwardly so as to force said teeth **35** into mesh with the ratchet teeth **30** of the plug member.

The slidable lug is provided with a key **33a** adapted to slidably engage in a keyway **34a** formed in the bottom portion of the clutch member **34**.

The handle **23** is formed with a cutout portion **37** providing a ledge **38** at the bottom of the handle, at one side thereof. A pivot pin **39** is mounted at the top of the sidewall **40** of said cutout portion and extends radially of the handle. An elongated lever member **41** has one end **42** hooked around the pivot pin for pivotally supporting the lever member. The other end **43** of the lever member is enlarged and is held outwardly of the handle **23** by an elongated spring **44** which is bent upon itself midway its ends and has one leg **45** secured to the inner wall **46** of the cutout portion of the handle, the other leg **47** impinging against the enlarged end **43** and urging it outwardly.

A toggle link member **48** has one end operatively connected to the crank device **31** and has its other end pivotally connected to a bar **49** slidable along the top of the ledge **38** at the bottom of the handle **23** and guided by a loop **50** secured to the ledge. The outer end of the slidable bar **49** is formed with a loop member **51** for connection to a hook member **52** formed on the rear of the enlarged end **43** of the lever member **41**.

In operation, inward pressure by the hand of the user on the lever member **41** will force said lever member inwardly which in turn will slide the bar **49** along the ledge **38** of the handle and move the toggle link member **48** thereby reciprocating the crank device **31**. The ratchet teeth **35** on the clutch member **34** and the ratchet teeth **30** on the plug member **26** being in mesh by virtue of the spring **36**, the reciprocating movement of the crank device is imparted to the plug member **26** and to the supported stem or stick **13** of the parasol. This rocks the parts of the parasol at the top of the stem or stick including the

webs or wing members 20, thereby causing the webs or wing members to agitate the surrounding air and create a current of air toward the handle 23. Successive movements of the lever member 41 do not interfere with the continued direction of movement of the webs or wing member 20 as the angular portions of the teeth 35 slide over the teeth 30 on the plug member 26 through the cooperation of the spring 44 when pressure on the lever member 41 is released.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, and means for reciprocating said crank device, whereby said stick and said webs are rotated.

2. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, and means for reciprocating said crank device including a pivoted lever member carried by the handle and toggle linkage interposed between the lever member and crank device and adapted to be actuated by said lever member whereby said stick and said webs are rotated.

3. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, said connection including a plug member forming an extenstion of said stick, ratchet teeth on the bottom face of said plug member, a clutch member slidably connected to the crank device, ratchet teeth on the clutch member adapted to mesh with the teeth on the plug member, spring means urging said teeth to meshing engagement, and means for reciprocating said crank device, whereby said stick and said webs are rotated.

4. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, said connection including a plug member forming an extension of the stick, ratchet teeth on the bottom face of said plug member, a clutch member slidably connected to the crank device, ratchet teeth on the clutch member adapted to mesh with the teeth on the plug member, spring means for urging said teeth to meshing engagement, and means for reciprocating said crank device including a pivoted lever member carried by the handle and toggle linkage interposed between and secured to the lever member and crank device whereby said stick and said webs are rotated.

5. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, said connection including a plug member forming an extension of the stick, ratchet teeth on the bottom face of the plug member, a clutch member slidably connected to the crank device, ratchet teeth on the clutch member adapted to mesh with the teeth on the plug member, spring means for urging said teeth into meshing engagement, and means for reciprocating said crank device including a pivoted lever member carried by the handle, toggle linkage interposed between and secured to the lever member and crank device, and spring means for urging said lever member to inoperative position and for retracting the toggle linkage.

6. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, said connection including a plug member forming an extension of the stick, ratchet teeth on the bottom face of the plug member, a clutch member slidably connected to the crank device, ratchet teeth on the clutch member adapted to mesh with the teeth on the plug member, spring means for urging said teeth into meshing engagement, and means for reciprocating said crank device including a manually operated pivoted lever member carried by the handle, a sliding bar having one end connected to said lever member and a toggle link pivotally connected at one end to the other end of said sliding bar, the other end of said link being connected to the crank device.

7. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, webs attached to said ribs and depending therefrom, apparatus carried by the handle for turning said stick including a crank device operatively connected to the stick, said connection including a plug member forming an extension of the stick, ratchet teeth on the bottom face of the plug member, a clutch member slidably connected to the crank device, ratchet teeth on the clutch member adapted to mesh with the teeth on the plug member, spring means for urging said teeth into meshing engagement, means for reciprocating said crank device including a manually operated pivoted lever member carried by the handle, a sliding bar having one end connected to said lever member and a toggle link pivotally connected at one end to the other end of said sliding bar, the other end of said link being connected to the crank device, and an elongated spring interposed between the handle and lever member for yieldingly holding said lever member in inoperative position and for retracting the sliding bar and toggle link.

8. In a parasol, a rotatable stick, spaced ribs supported at the top of said stick and adapted to rotate therewith, braces interposed between the stick and ribs, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an extension thereof, web members hooked onto said ribs and braces and depending therefrom, apparatus carried by the handle for turning the stick including a crank device operatively connected to the stick, and means for reciprocating said crank device including a manually operated pivoted lever member carried by the handle and a pivotal bar and link connection between the lever member and crank device.

9. In a parasol, a stick, spaced ribs supported at the top of said stick, braces interposed between the stick and ribs, a cover supported by said ribs, an elongated tubular handle at the lower end of said stick and forming an ex-

tension thereof, web members depending from said ribs and braces, hooks on the ends of said web members for fastening same to the ribs and braces, apparatus carried by the handle for turning the stick and associated parts including a crank device operatively connected to the stick, and means for reciprocating said crank device including a manually operated pivoted lever member carried by the handle and a pivotal bar and link connection between the lever member and crank device.

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