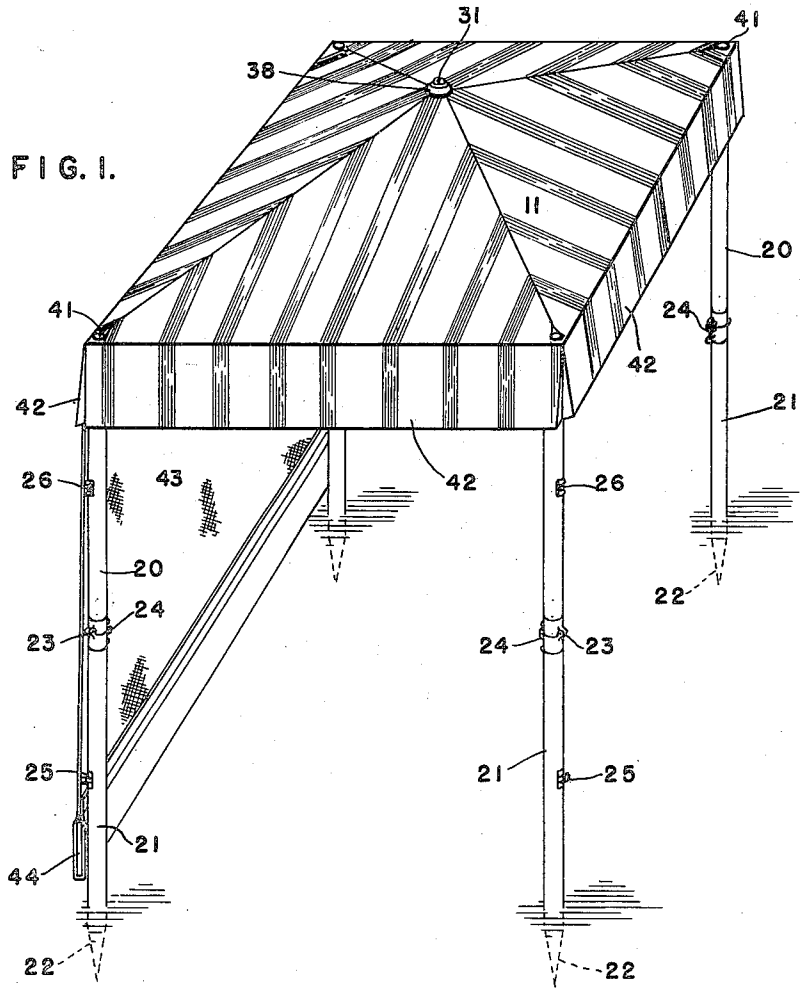
Aug. 8, 1950 J. MINTZ 2,518,167

SUN SHELTER

Filed Nov. 14, 1947 2 Sheets-Sheet 1

FIG. 1.



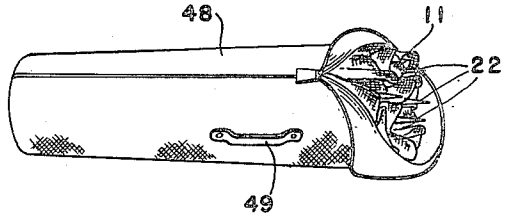


FIG. 2.

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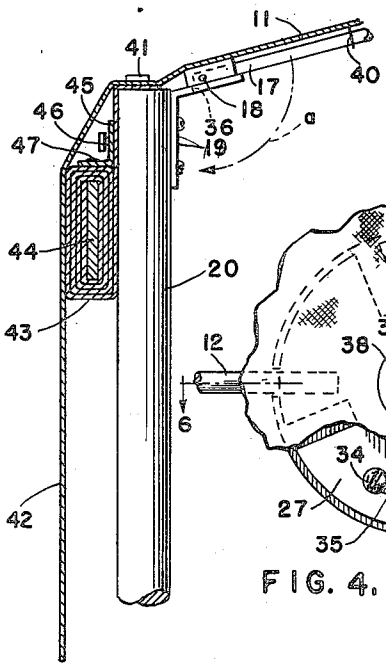
BY Irving Seidman
ATTORNEY

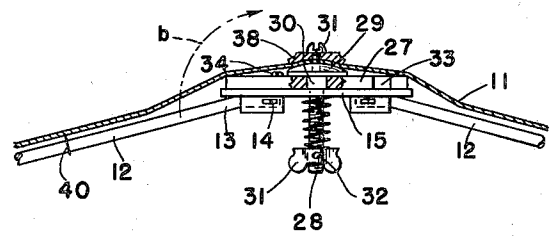
Aug. 8, 1950 J. MINTZ 2,518,167

SUN SHELTER

Filed Nov. 14, 1947 2 Sheets-Sheet 2

FIG. 3.





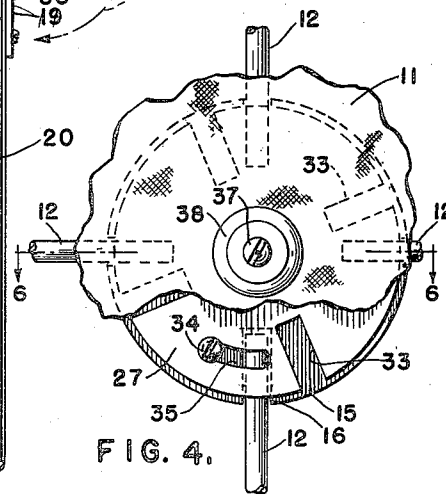


FIG. 4.

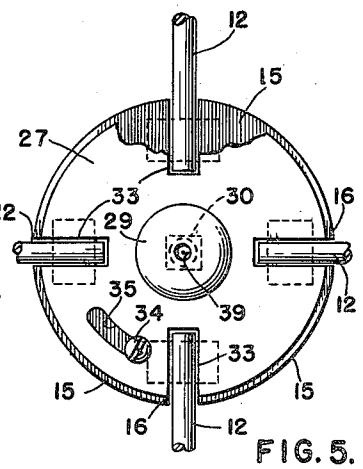


FIG. 5.

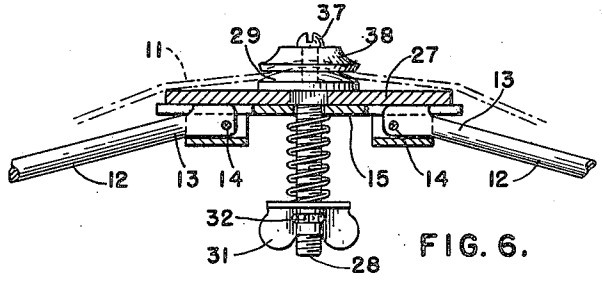
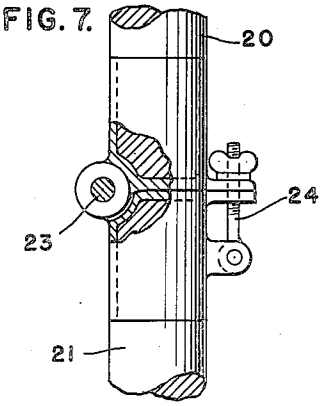


FIG. 6.

FIG. 7.



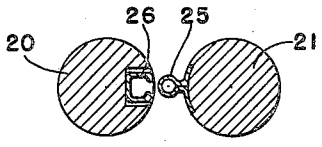


FIG. 8.

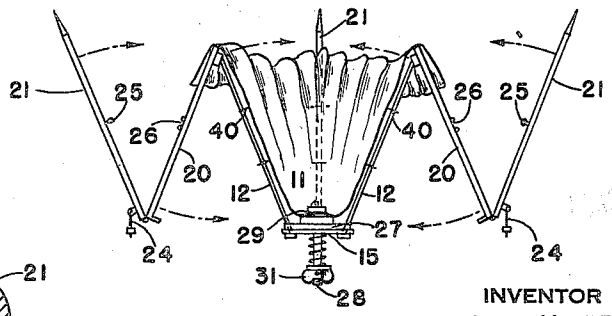


FIG. 9.

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SUN SHELTER

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Application November 14, 1947, Serial No. 786,048

2 Claims. (Cl. 135—5)

1

This invention relates to improvements in portable sun awnings or canopies and has particular reference to a collapsible canopy which may be quickly and easily set up for use and readily collapsed, folded and housed in a container or bag when not in use.

One object of this invention is to provide a device of the character described which employs a slotted swivel-disk co-acting with rib supporting elements to lock the members securely in open position when the device is in use.

Another object of this invention is to provide a collapsible canopy of the type described which may be readily and compactly folded and housed in a carrying case.

Another object of this invention is to provide a collapsible canopy of the character described including roll-up, detachable side curtains which may be applied to or removed from the said canopy as desired.

A further object of this invention is the provision of an awning or canopy of the character described which is particularly usable upon a beach or lawn or wherever the supporting uprights may be easily driven into the ground and which is collapsible and readily folded for placement inside of a carrying case.

A still further object of this invention is the provision of an organization in which the constituent elements are so arranged structurally and functionally as to assure improved results with materials and members which may be manufactured at reasonable cost, may be easily assembled and which will be efficient in operation with minimum wear to the parts.

The invention possesses other objects and features of advantage some of which, with the foregoing, will be set forth in the following description and in the claims wherein parts will be identified by specific names for convenience, but they are intended to be as generic in their application to similar parts as the art will permit. In the accompanying drawings there has been illustrated the best embodiment of the invention known to me, but such embodiment is to be regarded as typical only of many possible embodiments, and the invention is not to be limited thereto.

The novel features considered characteristic of my invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment when read in connection with the accompanying drawings, in which:

2

Figure 1 is a perspective view of the canopy set up and ready for use.

Figure 2 shows the canopy collapsed, folded and housed within a container or bag.

Figure 3 is an enlarged detail, partly in section, showing a swivel locking means located at the pinnacle of the canopy, a pivotally connected roof supporting rod and the upper part of a pivotally connected supporting upright.

Figure 4 is an enlarged fragmentary detail plan view of the pinnacle showing part of the swivel locking means.

Figure 5 is a plan view of the swivel locking plate in its unlocking position.

Figure 6 is a sectional elevational view of the swivel locking means and is taken along line 6—6 of Figure 4.

Figure 7 is an enlarged detail showing a hinged connection in the supporting upright and the locking means therefor.

Figure 8 is an enlarged sectional view showing a locking means for holding the hinged sections of the upright supporting members together when folded.

Figure 9 is a partly diagrammatic view showing the canopy partly folded together.

Referring in detail to the parts, 11 designates a top or canopy which may be made of awning fabric or other suitable material. 12 are metal ribs, the inner ends 13 of which are pivotally attached at 14 to a circular plate 15, having cut-outs or slots 16 through which the said metal ribs 12 are adapted to engage when not locked in the fixed position shown in Figures 3, 4 and 6. The outer ends 17 of the metal ribs 12 are pivotally attached at 18 to brackets 19 secured to the upper ends of the upper sections 20 of the upright supporting members which consist of the said upper sections 20 and lower sections 21 which have pointed ends 22 adapted to be forced into the ground to hold the canopy 11 in usable position as illustrated in Figure 1.

The said upper and lower sections 20 and 21 respectively of the supporting uprights are pivotally joined as at 23 and locked in open position by means of clamping and tightening units 24 (Figure 7). Spring snap hooks having a male member 25 upon the said lower section 21 and a complementary female member 26 upon the said upper section 20 are provided to hold the said sections together when same are folded.

A disk 27 is held concentrically, against the aforesaid plate 15 by means of a pin 28 having a

partially spherical head 29 and a square shank 30 which engages through a conforming square opening in said disk. The inner or lower end of said pin 28 is threaded to receive a thumb nut 31 which is held upon the said pin by means of a cotter-pin 32 engaging through a bore in said thumb nut and pin. By manually turning the said thumb nut 31 the disk 27 may be turned to aline slots 33 in said disk 27 and allow the aforesaid metallic ribs 12 to move up through when the said canopy is collapsed and folded. Figure 5 shows the disk 27 partially turned or revolved to bring the slots 33 into alinement with the slots 16 in the said plate 15 and the said ribs 12 while Figure 4 shows the disk 27 turned back to throw the said slots 33 out of alinement with the slots 16 thereby locking the ribs 12 in their open position as indicated in Figures 3 and 6. A pin 34 is attached to the plate 15 and engages through a slot 35 in the disk 27 and limits the movement of the said disk 27. The upper arm of the brackets 19 are formed with slots 36 to allow the ribs 12 to move down through the bracket arm when the device is collapsed and folded. The arrow *a* indicates the direction of movement of the said ribs 12 with respect to the upright 20 while the arrow *b* indicates the direction of movement of the said ribs with respect to the said disk and plate.

The covering material forming the said canopy 11 may be attached to the head 29 of the pin 28, at the pinnacle of the canopy and is held thereon by means of a screw 37 engaging through a washer 38, the canopy 11 and into a threaded bore 39 in said pin head 29. The canopy 11 extends over the said ribs 12 and may be attached to each rib by one or more loops 40, and to the upper end of each upper section 20 by means of a tack or flat headed nail 41 and extended over the side to form a valance 42.

Along each side of the canopy there may be removably attached side curtains 43 having a flat bar 44 slidable in a hem thereon, at the end thereof and held upon the upper sections 20 of said upright supports by means of attachment strap 45, pins 46 and buttons 47. In Figure 1 the curtain upon one side of the canopy is shown down while in Figure 3 the same is shown rolled up and held under the valance 42. When collapsing and folding the canopy the flat bar 44 must be removed.

In Figure 9 the canopy is shown partly folded and when the parts are brought closely together the canopy fabric may be rolled around the parts and the whole may be placed within a bag or holder 48 as shown in Figure 2. A carrying handle 49 may be provided and a slide fastening device or other suitable means may be employed to close the bag.

As hereinbefore stated the canopy is particularly adapted for use upon a beach or shore where the upright supports may be easily driven or pushed into the sand. The canopy thus set up affords protection, to the user, from the rays of the sun or rain.

I claim:

1. In a collapsible canopy, a frame comprising foldable supporting members, ribs, the outer ends of which are pivotally connected to said foldable supporting members, a plate, at the apex of the said frame, having radially extending slots therein and to which the inner ends of said ribs are pivotally attached, said ribs being adapted to swing into and through the said slots when said frame is collapsed and folded, a disk formed with radially extending slots and turnable upon the said plate to move the slots upon the said disk into or out of alignment with the slots upon the said plate, to release or lock the said ribs when the frame is collapsed or opened, a pin engaging through the said disk and plate, the said pin being formed with a flattened head having a convex upper surface, a squared shank engaging through a complementary square opening in said disk, the lower portion of said pin being threaded, a thumb nut having an internal thread and fixed upon the threaded portion of said pin, adapted when manually turned to turn the said slotted disk to bring the slots thereon into or out of alignment with corresponding slots upon said plate, a spring means disposed between the said plate and thumb nut to urge the said disk tightly against the said plate, a washer having a concave under surface, engaging with said convex surface upon said pin head and removably attached thereto, and a cover of flexible material engaging over said frame and held in place between the said concave surface or washer and convex surface of pin head.

2. In a collapsible canopy as set forth in claim 1, including a pin attached to the said slotted plate and extending through an arcuate slot in said slotted disk to limit the turning movements of said slotted disk.

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