This invention relates to collapsible shelter devices and has particular reference to a shelter device in the form of a teepee tent.

The invention contemplates a tent of substantially frusto-conical shape that consists of a plurality of reinforcing stays and with the lower ends of the stays being pivotally connected to the arms of a spreader device and with the upper ends of the stays being pivotally connected to a ring.

The invention contemplates a tent having flexible side walls and upwardly extending rigid stays and a bottom spreader device that comprises a central ring and a plurality of radial arms that are hingedly connected to the ring and to the lower ends of the stays and whereby the spreader may be extended downwardly into a horizontal position to spread the tent and when collapsed up into the tent, functions to collapse the tent to a substantially compact roll.

The invention further contemplates stays having their lower ends projecting below the spreader for piercing engagement into the ground to maintain the tent in expanded condition against movement by the wind and step-on devices for forcing the ends of the stays into the ground.

The present invention has for its purpose the provision of a shelter wherein a person may sit in the sun and absorb the heat from the sun that is generated through the covering of the tent. The tent may be employed inside of a building or for external use and may be constructed in various sizes to accommodate adults or children and has many uses as a shelter device and the tent may be collapsed with a minimum of effort or expanded with a minimum of effort by reaching through a doorway and pressing the spreader downwardly, causing its radial arms to force the sides walls of the tent outwardly to a position determined by the radial arms.

Novel features of construction and operation of the device will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings wherein has been illustrated a preferred form of the device and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

FIGURE 1 is a perspective view of a tent constructed in accordance with the invention.

FIGURE 2 is a horizontal section taken substantially on line 2—2 of FIGURE 1.

FIGURE 3 is a fragmentary section taken on line 3—3 of FIGURE 1.

FIGURE 4 is a central vertical section through the tent taken substantially on line 4—4 of FIGURE 1.

FIGURE 5 is a fragmentary sectional view taken on line 5—5 of FIGURE 2.

FIGURE 6 is a fragmentary sectional view taken substantially on line 6—6 of FIGURE 2.

FIGURE 7 is a top plan view of the tent in the collapsed position.

FIGURE 8 is a sectional view taken on line 8—8, parts being shown in elevation, and

FIGURE 9 is a side elevation of the tent in the fully collapsed position.

Referring specifically to the drawings, it will be seen that the tent, shown particularly in FIGURE 2 is of an octagonal shape. The tent is provided with upwardly extending channel-shaped stays 5, the stays 5 are pivotally connected at 6 to a plurality of radial arms 7. The arms 7 are pivotally connected at 8 to wings 9 carried by a ring 10, the ring 10 and the radial arms 7 constitute the means for spreading or assembling the tent. The stays 5 at their upper ends are pivotally connected at 11 to a ring 12. The ring 10 and the radial arms 7 are adapted to be collapsed upwardly, as shown in FIGURE 8 and whereby the spreader when moved upwardly functions to collapse the side walls of the tent inwardly into a compact bundle, illustrated particularly in FIGURE 9. The several stays when fully collapsed define a package substantially of the diameter of the ring 12.

Means are provided to prevent the spreader, indicated as a whole by the numeral 13 from swinging passed a horizontal position for spreading the tent, such means embodying lips 14 that are carried by the ring 10 and which the lips overlying the several radial arms 7. The lower ends of the stays 5 are also provided with lips 15 to limit the downward swinging movement of the arms 7 so that the spreader will be disposed in a substantially horizontal position after the tent has been moved to its expanded position. The lower ends of the stays are cut away and pointed at 16 so that the points may be forced into the ground by the user to prevent blowing over of the tent under wind conditions. To force the point 16 into the ground, there have been provided step-on plates 17 that are welded or otherwise connected to the lower ends of the stays to project outwardly beyond the walls of the tent.

As clearly shown, the several stays are covered by any suitable flexible cover 18, such being formed of plastic, canvas or other materials. The side wall 18 is connected to each of the stays 5 by snap buttons 19 and whereby the cover 18 may be removed from time to time for purpose of cleaning or replacement. The lower marginal edges of the cover 18 along the bottom, is preferably reinforced by a reinforcing strip 20 that is stitched or otherwise connected to the cover from stay to stay. The reinforcing is likewise flexible and in normal use, as shown in FIGURE 2, the segments of the tent between the stays are normally maintained taut. The cover segments at the upper end of the tent may terminate in a conical hood 21.

The points 16 of the stays, while being desirable for outdoor use, may be omitted so that the tent may be used inside of a house or any patio and with the points omitted, the tent will sit flatly upon the ground or upon the floor.

The tent in one segment is provided with a flexible door flap 22 to permit entry or exit from the tent. The door may be provided with a sight opening 23 that is covered by a flap 24 and with the flap being stitched at its upper end as indicated in FIGURE 4. On the next two other segments of the tent cover, there has been provided vent openings 25, that are preferably covered by a preferably transparent cover 26. Adjacent to the door opening 22, the tent is provided with a pair of U-shaped handles 27 whereby the operator may grasp the handles and dispose the tent in an upright manner so that a hand may be extended through the sight opening 23 to actuate the spreader 13 either up or down.

In the use of the device, the tent having been assembled, as described and assuming that the operator has previously collapsed the tent to the position of FIGURES 8 and 9, he grasps the handle 27 and initially stands the collapsed tent to a substantially vertical position then, by reaching through the opening 23, he can press downwardly upon the ring 10, forcing the radial arms outwardly and to fully spread the tent to the position illustrated in FIGURE 2.

To collapse the tent, the operator reaches through the opening 23, grasps the ring 10 and lifts the spreader upwardly, pulling all of the arms 7 inwardly for swinging...
the stays 5 to a position where they lie substantially parallel, as shown in FIGURE 8. The cover 18 being flexible, will collapse into the spaces between the stays 5, creating a substantially cylindrical bundle that may be tied together and stored or transferred to any desirable point.

It will be apparent from the foregoing that a very novel construction has been provided for collapsible teepee type of tent. The spreading means for the tent is substantially simple and permits the tent to be expanded or collapsed with a minimum of effort. With the pointed ends of the stays 5, the tent may be employed for resting engagement upon the ground, the beach or various other places where a shelter is desired and ready lends itself to use by both adults and children by varying the size of the device. The device when used on the beach presents a very desirable wind break yet permitting the individual to absorb the heat from the sun which is most desirable especially, when the weather is cool. The cover 18 may be readily detached from the frame having the stays 5 and permits covers to be applied to the frame through the medium of the snap buttons 19 so as to permit the cover to be replaced when worn or damaged and to also permit the use of covers having varying colors and designs. The device is simple in construction, is strong, durable and cheap to manufacture.

It is to be understood that the invention is not limited to the precise construction shown, but that changes are contemplated as readily fall within the spirit of the invention as shall be determined by the scope of the subjoined claims.

I claim:

1. A collapsible shelter device of truncated cone-shape octagonal in cross section, a plurality of rigid stays that extend for the full height of the shelter, the stays at their upper ends being pivotally connected to a rigid ring, a spreader device disposed at the bottom of the shelter with the spreader device embodying a rigid ring and a plurality of radial arms that extend from the ring to each of the stays, the arms being pivotally connected to the ring and to the stays and whereby an upward movement of the spreader device will cause all of the stays to swing together toward the ring, a flexible cover for the shelter that overlies the several stays, the cover at its lower marginal portion being connected to each of the stays by a snap button and whereby the cover may be detached, lips formed upon the ring of the spreader at the point of each pivotal point for the arms, the lips overlying the arms and contacting with the arms when said arms extend horizontally whereby the spreader device will be prevented from shifting below a horizontal position, each of the stays also being provided with stops that underlie the arms adjacent to the points of pivotal connection of the arms to the stays and also serving to prevent shifting of the spreader below the horizontal position, each of the stays at their lower ends being reduced to form a greater piercing leg and step-on plates carried adjacent the lower ends of the stays whereby to facilitate the engagement of the prongs into the ground, the cover being provided with vent openings in at least two segments of the cover, between two adjacent stays, a door opening for the shelter that is disposed in another segment of the cover, the door opening being closed by a flexible cover that is stitched to the cover at its top and along one side, a sight and access opening formed in the door whereby the operator may reach through the opening to shift the spreader either upwardly or downwardly, a pair of handles that are fixed to the stays on opposite sides of the door and whereby to facilitate the handling of the device when in a collapsed position and to set the device in its collapsed position upwardly prior to the shifting of the spreader downwardly for expanding the shelter and a cone-shaped cap disposed over the top of the shelter and that overlies the first named ring and an upper marginal edge of the cover.

2. A shelter device as recited in claim 1 wherein the vent openings are provided with slideable covers, the said stays being of channel form and with the radial arms being formed square in cross section, the rings of the spreader, the stays and the upper ring being formed of a non-corrosive metal, the stays below the pivotal point for the arms being cut away to form a piercing prong.

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