April 29, 1958 S. E. SMITH 2,832,361

CANOPY FRAME

Filed March 18, 1955 2 Sheets-Sheet 1

FIG. 1

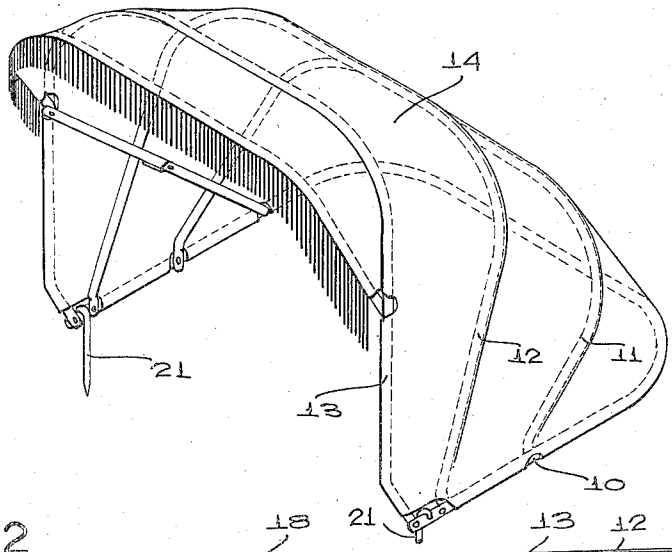


FIG. 2

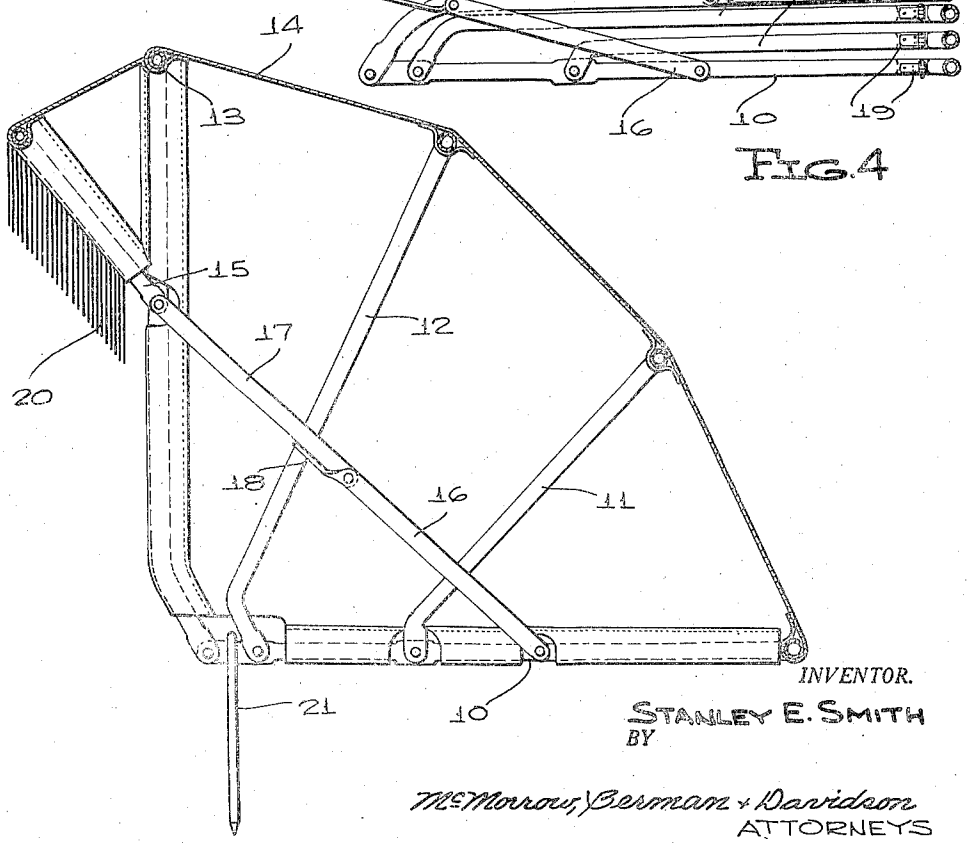


FIG. 4

INVENTOR.
STANLEY E. SMITH
BY
McMorrow, Berman & Davidson
ATTORNEYS

April 29, 1958 S. E. SMITH 2,832,361

CANOPY FRAME

Filed March 18, 1955 2 Sheets-Sheet 2

FIG. 3

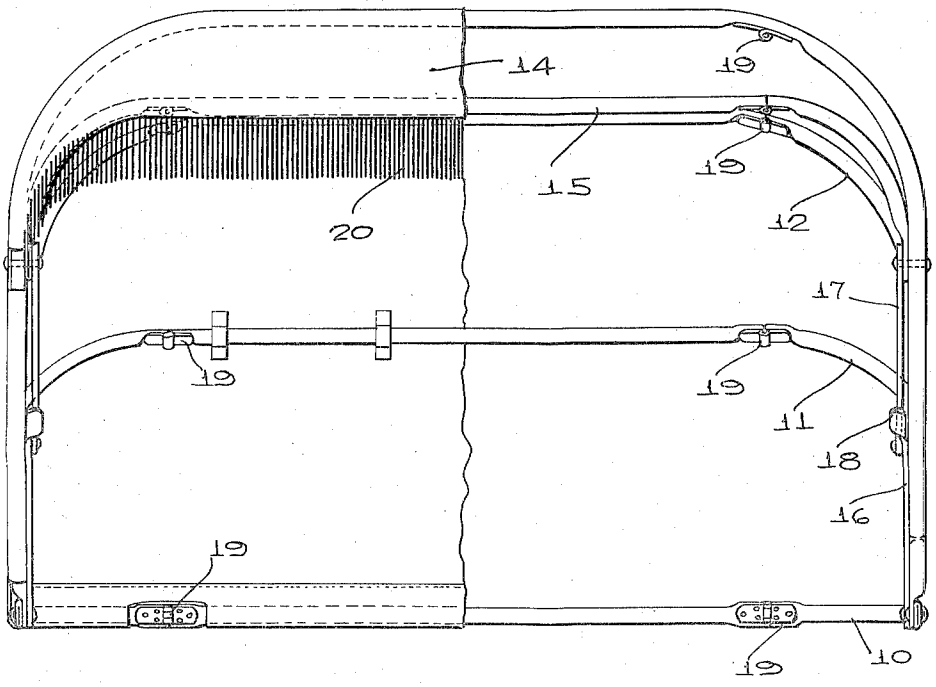
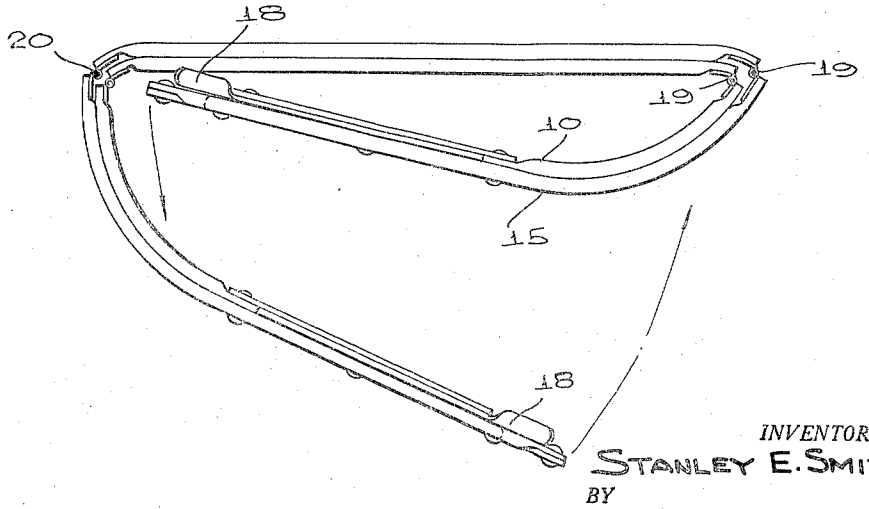


FIG. 5



INVENTOR.
STANLEY E. SMITH
BY

McMorrow, Berman & Davidson
ATTORNEYS

United States Patent Office 2,832,361 Patented Apr. 29, 1958

2,832,361

CANOPY FRAME

Stanley Edward Smith, Elizabeth, N. J.

Application March 18, 1955, Serial No. 495,096

1 Claim. (Cl. 135—7.1)

The present invention relates to collapsible canopy frames.

The primary object of the present invention is to provide a collapsible canopy having a frame which folds into a neat compact parcel for transportation and storage.

Another object of the present invention is to provide a collapsible canopy for use as a sun or wind shelter on beaches or the like.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is a view in perspective of the assembled canopy in the extended position of use,

Figure 2 is a side view partially in cross-section of the canopy in the extended position,

Figure 3 is a front view of the present invention showing the fabric covering of the canopy partially removed,

Figure 4 is a side view partially in cross-section showing the canopy frame in the collapsed side by side position, and

Figure 5 is a top plan view of the canopy frame with the fabric cover removed and the frame in partial folded position toward its nested position.

Referring in greater detail to the drawing in which like numerals indicate like parts throughout the several views, the present invention consists of a collapsible canopy frame embodying a horizontally disposed U-shaped main bow **10** and a series of other U-shaped bows **11**, **12**, and **13**, each of them having the free ends of their arms pivotally connected to the arms of the main bow **10**.

The bows **11**, **12** and **13**, are movable from a collapsed position shown in Figure 4 in which they are in side by side abutting relation with respect to each other and with respect to the main bow **10** to an upright position spaced from each other for supporting the fabric covering indicated in Figures 1 and 2 by the reference numeral **14**.

An auxiliary U-shaped bow **15** is pivotally connected by the free ends of its arms to the one bow **13** which is remote from the main bow **10** when in the side by side position.

Latch means is provided for securing the bows in the spaced upright position and consists of a pair of arms **16** and **17** connected together by their one ends, the arm **16** being pivotally connected by its other end to the main bow **10** and the arm **17** being pivotally connected by its other end to the bow **13**. The arms **16** and **17** are hingedly connected together to bend in one direction when in the collapsed position and are locked in the extended position by having the one end of the arm **16** provided with a turned extension **18** which engages the side edges of the arm **17**.

There are two sets of arms **16** and **17**, one at each end of the canopy frame thus formed by the bows **10** to **13**, inclusive.

The main bow **10** and each of the bows **11**, **12**, **13** and **15** have their arms hingedly connected to the respective bight of each of the bows by means of the hinges **19** for movement from the U-shaped position when in the collapsed side by side position to a partial folded position toward a nested position, as shown in Figure 5, in which each of the arms is substantially parallel to the bight of its bow.

A fringe **20** is provided and is attached to the fabric

covering the auxiliary bow **15** along the edge thereof to provide a neat and attractive appearance to the canopy of the present invention.

A pair of stakes **21** having a hook on their upper ends are provided to anchor the main bow **10** in its horizontal position upon the ground.

In use, the canopy of the present invention is folded for storage or transport by first unlocking the latch means, then moving the inverted U-shaped bows from the spaced upright direction position to a superimposed position with respect to the horizontally disposed main bow, and then folding the arms of the bows from the spaced position perpendicular to the bight of each bow to a nested position substantially parallel with the bight of each bow. The fabric covering is folded at the same time between adjacent bows as the bows are moved to the nested position.

The canopy of the present invention provides a shelter from the sun or wind and rain for use on the beach, or for use by hunters and fishermen, and provides one which is readily transportable within the trunk of an automobile.

What is claimed is:

A collapsible canopy frame comprising a horizontally disposed U-shaped main bow including a pair of arms and a bight connecting one of the ends of said arms together, a plurality of inverted U-shaped bows each including a pair of arms and a bight connecting the upper ends of said arms together arranged in spaced upright directions and each having the lower ends of its arms connected at points spaced therealong to the adjacent arms of the main bow for movement from the spaced upright direction position to a superimposed position with respect to said main bow, said main bow and each of said inverted bows having the ends of its arms adjacent the bight hingedly connected to said bight for movement about an axis transverse to said bight from the perpendicular position with respect to the bight to a substantially parallel position with respect to the bight, latch means for locking said bows in the spaced upright direction position, and an auxiliary inverted U-shaped bow having the lower ends of its arms connected to the one of said inverted U-shaped bows remote from said horizontally disposed main bow when in the spaced upright direction position, said auxiliary bow being movable with said last-named bow from the spaced upright direction position to the superimposed position with respect to the main bow, said auxiliary bow having the ends of its arms adjacent the bight hingedly connected to said bight for movement about an axis transverse to said bight from the perpendicular position with respect to the bight of said auxiliary bow to a substantially parallel position with respect to said bight of said auxiliary bow upon movement of the hinged arms of said inverted bows and said main bow from the perpendicular position with respect to the bight of each of said inverted bows and said main bow to the substantially parallel position with respect to said bights.

References Cited in the file of this patent

UNITED STATES PATENTS

235,119	Ayres	Dec. 7, 1880
692,501	Bentley	Feb. 4, 1902
1,235,874	Borke	Aug. 7, 1917
2,513,764	Ahe	July 4, 1950
2,543,597	Peery	Feb. 27, 1951
2,689,579	Sartori	Sept. 21, 1954
2,755,811	Murray	July 24, 1956

FOREIGN PATENTS

3,164	Great Britain	Feb. 8, 1907
108,957	Great Britain	Aug. 30, 1917
156,342	Great Britain	Jan. 13, 1921