

[54] **LIGHTWEIGHT PORTABLE ICE FISHING SHELTER FRAME**

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**FOREIGN PATENTS OR APPLICATIONS**

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[52] U.S. Cl. .... **135/4 R**

[57] **ABSTRACT**

[51] Int. Cl. .... **A45f 1/16**

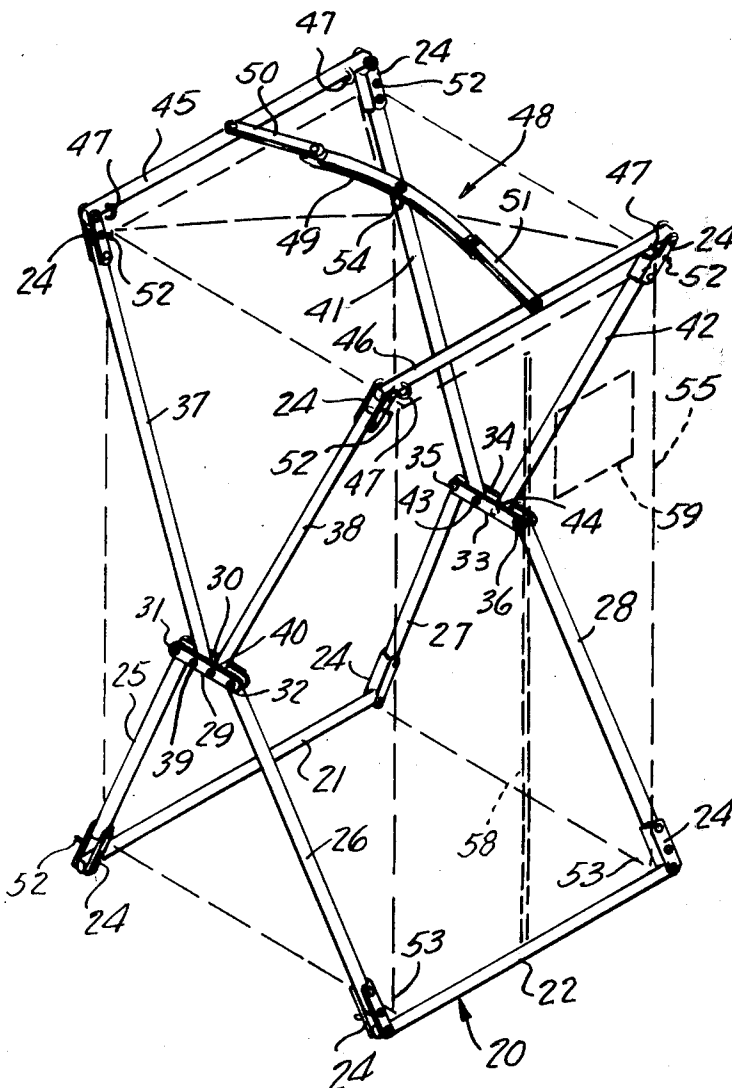
A lightweight portable ice fishing shelter frame for supporting a canvas shelter in a position to permit the occupant to fish through the ice without undue exposure to the elements. The frame consists of a plurality of tubular elements pivotally secured together so as to fold into an extremely compact bundle. The tubes when open support a rectangular shelter suspended internally of the frame.

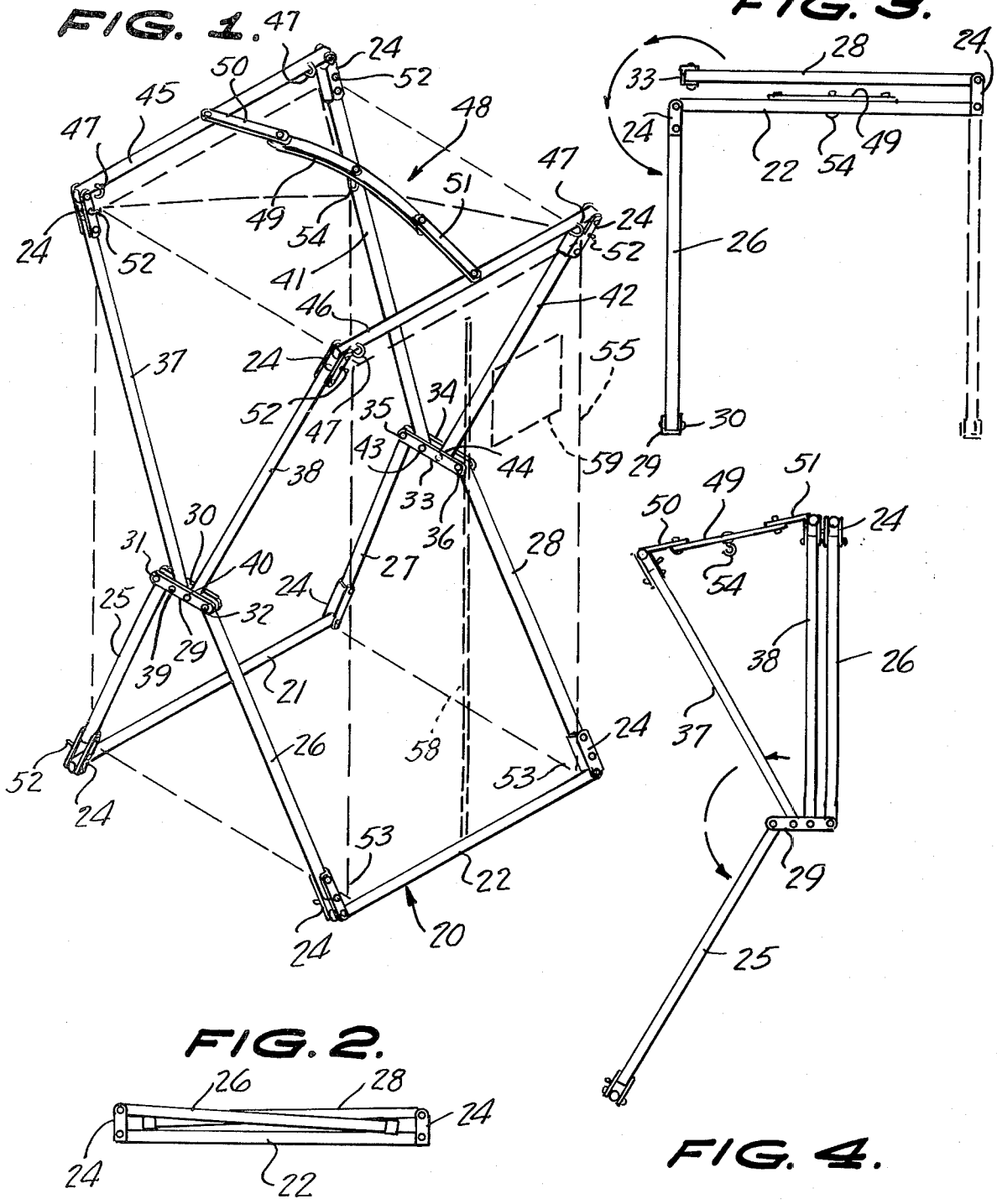
[58] Field of Search ..... 135/4 R, 5 B, 7.1 R, 3 E

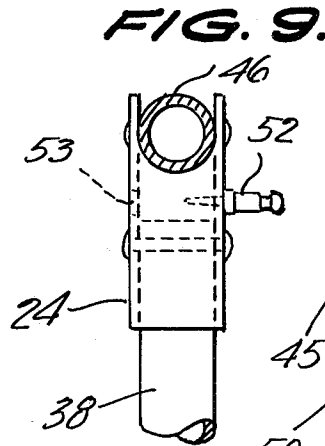
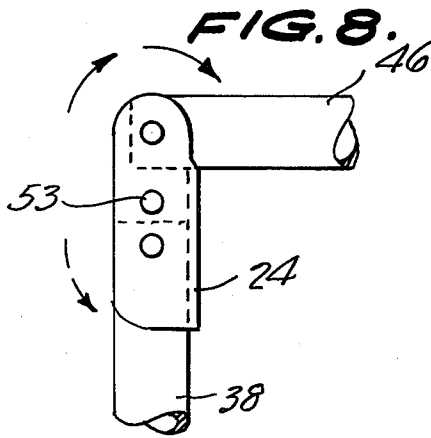
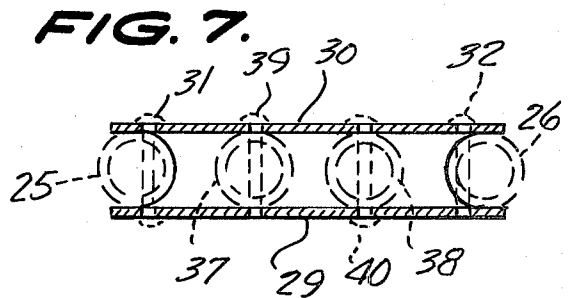
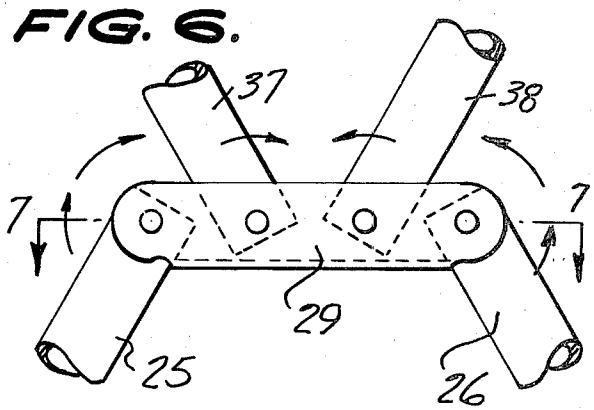
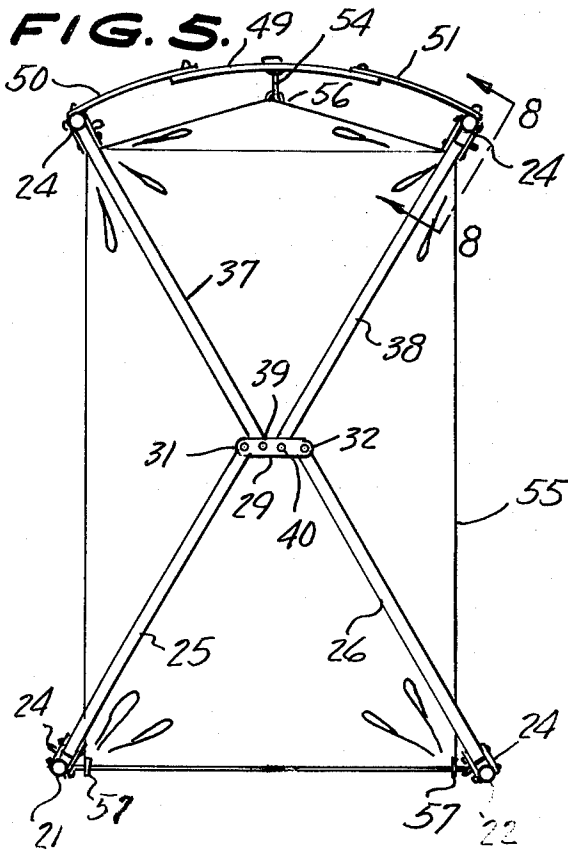
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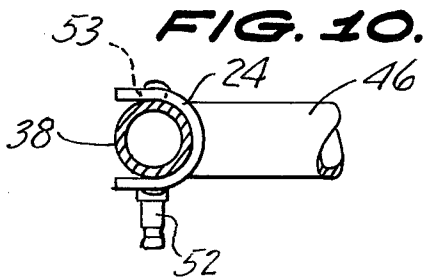
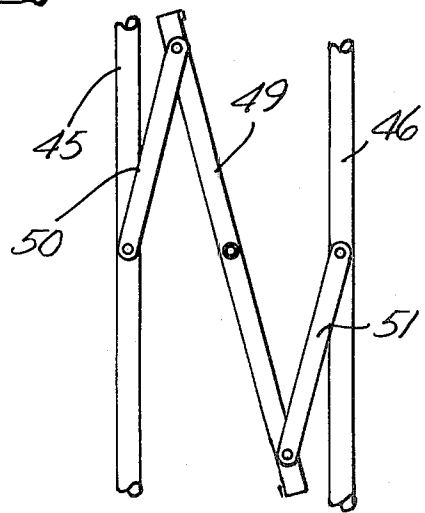
**1 Claim, 11 Drawing Figures**







**FIG. 11.**



# LIGHTWEIGHT PORTABLE ICE FISHING SHELTER FRAME

## BACKGROUND OF THE INVENTION

### FIELD OF THE INVENTION

The present invention relates to a support frame for an ice fishing shelter which is lightweight and portable and can be folded into a compact bundle.

### SUMMARY OF THE INVENTION

The present invention consists of a frame having four side frame members on each side of the shelter with the frame members pivotally secured together. Base frame members and header frame members connect the frame members on opposite sides of the shelter and can similarly be folded so as to produce a compact bundle.

The primary object of the invention is to provide a frame for a lightweight portable ice fishing shelter which can be erected by one man and which is quite strong in operation.

Other objects and advantages will become apparent in the following specification when considered in light of the attached drawings.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the invention;

FIG. 2 is a side elevation of the invention in folded form;

FIG. 3 is a side elevation of the invention in partially folded form;

FIG. 4 is a side elevation of the invention in the process of being unfolded;

FIG. 5 is an end elevation of the invention;

FIG. 6 is an enlarged fragmentary end elevation of the joint;

FIG. 7 is a transverse sectional view, taken along the lines 7-7 of FIG. 6, looking in the direction of the arrows;

FIG. 8 is an enlarged fragmentary side elevation, taken along the line 8-8 of FIG. 5, looking in the direction of the arrows;

FIG. 9 is an end elevation of the structure illustrated in FIG. 8;

FIG. 10 is a top plan view of the structure illustrated in FIG. 8; and

FIG. 11 is a top plan view of the top brace in partially folded position.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in detail, wherein like reference characters indicate like parts throughout the several figures, the reference numeral 20 indicates generally a frame for a lightweight portable ice fishing shelter constructed in accordance with the invention.

The frame 20 includes a pair of spaced parallel tubular base frames 21, 22. A semi-tubular hinge 24 is connected to each end of the tubular members 21, 22 and have upwardly and inwardly extending tubular frames 25, 26, 27 and 28 secured thereto so as to be pivotally related to the base frame members 21, 22. A pair of spaced parallel plates 29, 30 are secured to the frame members 25, 26 by pivot pins 31, 32. A similar pair of plates 33, 34 are pivotally connected to the upper ends of the tubular frames 27, 28 by pivot pins 35, 36. A pair

of tubular frame members 37, 38 are also engaged between the plates 29, 30 and are secured thereby by pivot pins 39, 40. A pair of tubular frame members 41, 42 are positioned between the plates 33, 34 and are secured therein by pivot pins 43, 44.

Semi-tubular hinges 24 are secured to the upper ends of the frame members 37, 38, 41 and 42 and have header frame members 45, 46 pivotally secured thereto. The header frame members 45, 46 are provided with attachment eyes 47 adjacent each end thereof for reasons to be assigned.

A brace generally indicated at 48 includes a central portion 49 having opposed end portions 50, 51 pivotally secured to opposite ends thereof. The end portions 50, 51 are pivotally secured to the center of the frame members 45, 46. A plurality of male retainer snaps 52 are secured to the semitubular hinge members 24 and are adapted to engage in sockets 53 on the opposite side of an adjacent semi-tubular hinge 24 as the frame 20 is folded.

A hook 54 is secured to the underside of the central portion 49 of the brace 48.

A canvas or plastic tent 55 of generally rectangular form has a central loop 56 in the top wall thereof which engages over the hook 54 and each corner ties to a single one of the loops 47 as can be seen in FIGS. 1 and 5. Loops 57 in the lower edge of the tent 55 tie the bottom of the tent 55 in position. The tent 55 has a zipper closure 58 and window 59.

Having thus described the preferred embodiment of the invention it should be understood that numerous structural modifications and adaptations may be resorted to without departing from the spirit of the invention.

What is claimed is:

1. A lightweight portable ice fishing shelter frame erectable to form a generally rectangular box like frame and foldable into compact form, said frame comprising a pair of closely spaced parallel plates on each side of said frame, a pair of downwardly diverging straight tubular side frame members pivotally secured at one end between said plates on each side of said frame, a pair of upwardly diverging straight tubular side frame members pivotally secured at one end between said plates on each side of said frame, a hinge secured to each of said side frame members at the end thereof opposite said plates, a pair of spaced parallel tubular straight base frame members each having its opposite ends secured to adjacent hinges on the downwardly diverging side frame members on opposite sides of said frame, a pair of spaced parallel tubular straight header frame members each having its opposite end secured to adjacent hinges on the upwardly diverging side frame members on opposite sides of said frame, a folding brace pivotally connected at its opposite ends centrally to said header frame members, said hinges being semi-tubular in form to permit said frame members to swing to parallel relation to each other, said frame members being foldable so that each of said side frame members, said base frame members and said header frame members extend parallel to each other, and means on said frame for supporting a generally rectangular fishing shelter within said frame.

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