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W. L. McCLISH

2,811,977

SHELTER SEAT

Filed Jan. 23, 1956

2 Sheets-Sheet 1

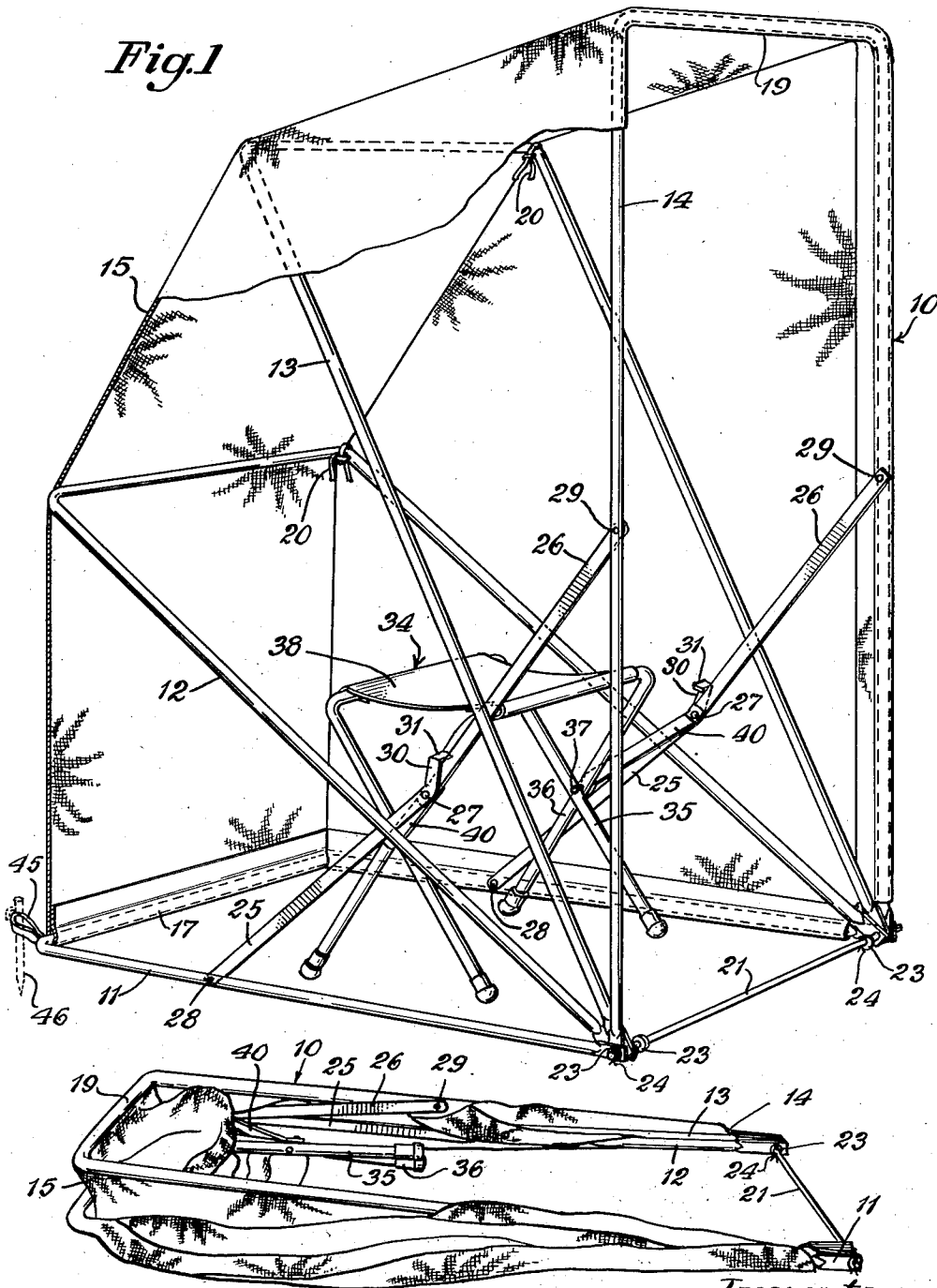


Fig. 3

Inventor
William McClish
by Parker & Carter
Attorneys

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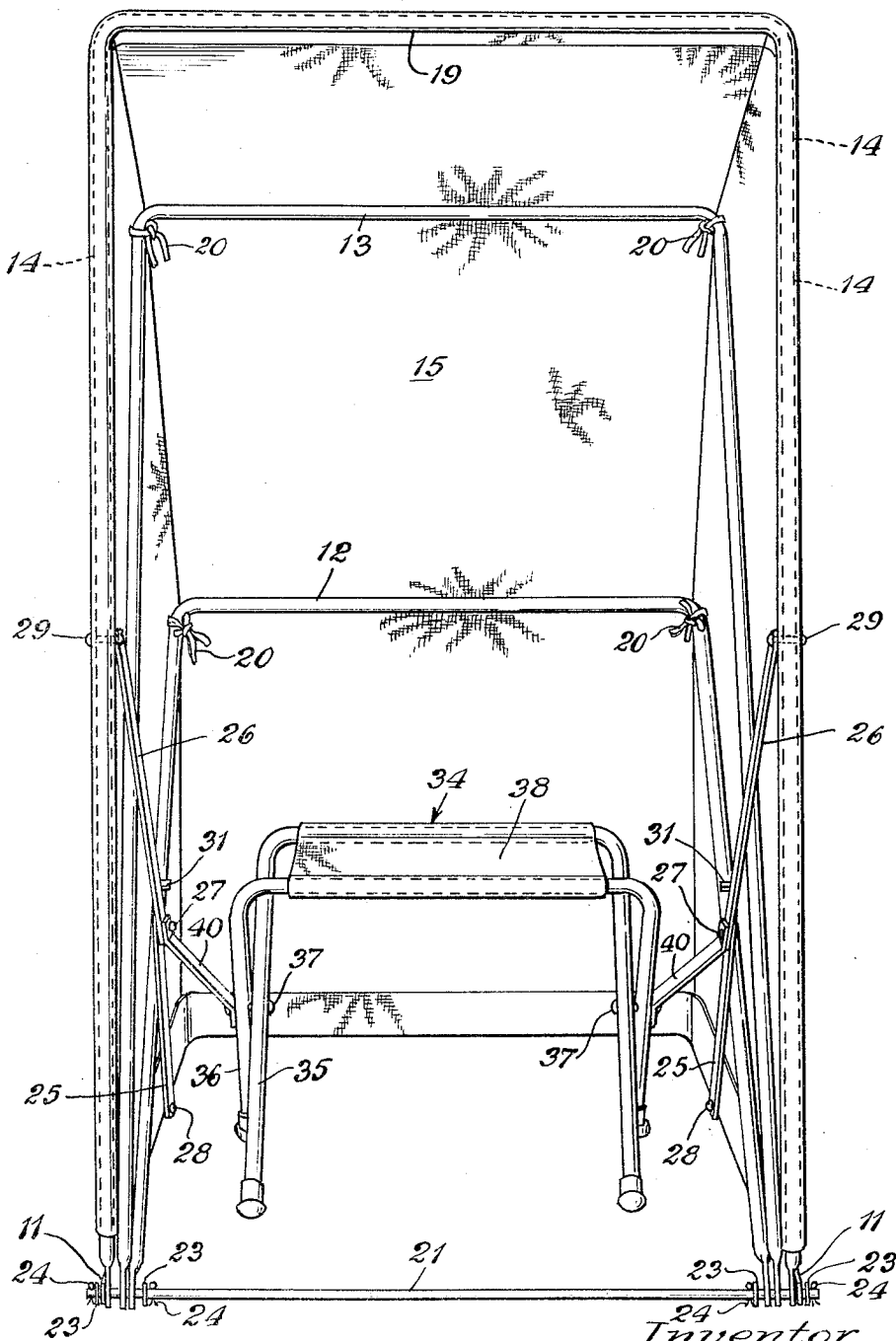
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Inventor
William McClish

by Parker & Carter
Attorneys

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William L. McClish, Goshen, Ind.

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4 Claims. (Cl. 135—5)

This invention relates to improvements in collapsible tent shelters of the kind particularly adapted for ice fishing or hunting in cold and inclement weather, although not necessarily limited to such use.

One of the principal objects of the invention is to provide a simple, light and efficient collapsible shelter structure of the character described.

A further object of the invention is to provide as a part of the shelter structure, a folding or collapsible seat arranged to serve as an anchor for the shelter while the user is occupying the seat in the shelter.

Other and further objects of the invention may best be understood by the accompanying drawings in which:

Figure 1 is a perspective view of a shelter made in accordance with my invention, showing the same in erected position, but with part of the cover cut away to show details of the framework thereof.

Figure 2 is a perspective view of the erected shelter looking into its open side.

Figure 3 is a perspective view of the shelter in collapsed position.

Referring now to the details of the embodiment of the invention shown in the drawings, the shelter, indicated generally at 10, has a metal framework, the principal elements of which comprise a plurality of generally U-shaped frame members all of approximately the same dimensions and having their legs pivotally connected together at their ends (see Figure 1). In the form shown herein, four such frame members 11, 12, 13 and 14 are employed. Flexible covering material 15, such as canvas or other weatherproof material, is fitted over and secured to the several U-shaped frame members to form a shelter with an upright open front when the structure is extended to fully open erected position, as shown in Figures 1 and 2. When in such fully open position, one U-shaped frame member 11 is adapted to rest horizontally on the ground, another U-shaped member 14 is disposed in a generally upright position substantially at right angles to the frame member 11, and the intermediate frame members 12 and 13 assume intermediate angles to the members 11 and 14 so as to support the shelter cover 15 in the form of a hood-like semi-enclosure.

Suitable means are provided for securing the cover 15 to the U-shaped frame members. In the form shown herein, the frame member 11 which normally rests on the ground has the bottom edge of the cover secured thereto by lapping a hemmed edge 17 of said cover around said frame throughout the length of the latter. The upright U-shaped member 14 has the front edge of the cover similarly lapped therearound by a hemmed edge 19. The intermediate U-shaped frame members 12 and 13 may have the cover 15 detachably secured at or adjacent their outermost corners as by tapes 20, 20 suitably fastened to the inner face of the cover and tied around the respective frame members. With this construction it will be understood that the cover 15 serves as a means for spacing the several frame members at predetermined an-

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gular relations to each other when the shelter is in the fully open erect position shown in Figures 1 and 2.

The legs of the U-shaped frame members 11, 12, 13 and 14 are pivotally connected at their ends on opposite ends of a cross rod 21, which extends across the front lower corner of the shelter. The legs are held in place on the cross rod by washers 23 secured to the extreme outer ends of the rod as by cotter pins 24.

Means for collapsibly holding the shelter structure in open position consists of two sets of toggle links, each set of toggle links consisting of a lower link 25 and an upper link 26 preferably of approximately the same lengths and connected together by a pivot pin 27. The free end of each lower link 25 is pivotally connected by a pivot pin 28 to the leg of the lowermost U-shaped frame member 11, approximately midway the length thereof, and the free end of the upper link 14 is pivotally connected by a pivot pin 29 to the leg of the upright frame member 14 approximately midway the length thereof.

One link 25 of each set has a short arm 30 extending at a slightly offset angle beyond its pivotal connection with the other link 26 with an intumed end 31 at its end to provide stop means for limiting relative movement of the links of each set in a position slightly beyond "dead center" to hold the shelter in fully open position. When the frame is collapsed, the two sets of toggle links hinge outwardly toward the cover 15 and fold within the confines of said cover.

In conjunction with the collapsible shelter structure above described, I provide a folding stool or chair 34 which is connected to the framework as a permanent part thereof. In the form shown herein, the stool consists of a pair of U-shaped members 35, 36 having their respective legs pivotally connected intermediate their ends by pivot pins, 37.

A flexible web 38 connects the horizontal cross-pieces of said U-shaped members to form the seat of a stool of a conventional folding type, in which the U-shaped members 35 and 36 are extended into X-like form when used as a stool, but are capable of being folded into generally parallel relation with each other.

The stool 34 is connected to the framework of the shelter by a pair of links 40, 40. In the form shown, one end of each link 40 is pivotally connected to the adjacent pivot pin 37 of the folding stool, and the other end is pivotally connected to the adjacent framework of the shelter, as shown herein, such pivotal connection being provided by the pivot pin 27 which connects the adjacent set of toggle links 25 and 26. The stool connecting links 40, 40 are disposed at outwardly inclined angles to the stool, because the latter is narrower than the framework to which it is attached (see Figure 2). The links 40 are of such length as to permit the stool 34 to be disposed in normal seating position, with its legs resting upon the ground, when the shelter is in erected position, as shown in Figures 1 and 2, and yet permit said legs to accommodate themselves to uneven ground on which the structure may be erected. It will be further noted that the stool-connecting links 40 are normally inclined forwardly and upwardly toward the open end of the shelter, so that when the occupant is seated on the stool, the latter will form in effect an anchor for the entire shelter to withstand displacement of the latter by wind blowing toward the closed rear end thereof.

Auxiliary anchoring means for the shelter may also be provided, as for instance by loops 45, 45 secured along the lower edge of the cover 15 for engagement with stakes 46 or similar anchoring devices.

As will also be seen in Figure 3, when the shelter is collapsed the folding stool 34 is moved outwardly toward the cover with the pivoted ends of the toggle links, so that said stool can also be collapsed and partially con-

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tained within the folds of the cover 15, so as to be held against unfolding while the shelter is being transported in collapsed position from place to place.

Although I have shown and described certain embodiments of the invention, it will be understood that various changes and modifications may be made without departing from the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A collapsible shelter structure comprising a plurality of generally U-shaped frame members pivotally connected together at the ends of their legs, flexible cover means connected to said frame members adapted to form a ground supported shelter open at one end when the frame members are pivotally extended into spaced relation with each other, a folding stool, and linkage means pivotally connecting said stool with the frame members at opposite sides thereof in position to permit said stool to rest on the ground within the shelter when the latter is in fully extended position, said frame members, cover member, linkage means and folding stool all being collapsible, with the stool between the legs of said frame members.

2. The structure of claim 1 wherein two sets of toggle links are pivotally connected at their free ends to the legs of the outermost U-shaped members of the shelter intermediate the ends of said legs to hold the shelter structure in extended position, and the means connecting the folding stool to the framework includes a pair of links, each of said links being pivotally connected at one end to one side of the stool, and at the other end to the adjacent set of toggle links, said toggle links being fold-

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able outwardly toward the cover of the shelter when the frame members are swung to collapsed position, to move the folding stool into interfitting relation with the cover when the entire shelter structure is in collapsed position.

3. The structure in accordance with claim 2 wherein the links which pivotally connect the folding stool to the toggle links are disposed in a direction toward the open end of the shelter when the latter is in fully extended position, whereby the stool when occupied by the user forms in effect an anchor to resist displacement of the shelter by wind blowing from the closed rear end of said shelter.

4. The structure of claim 2, wherein the folding stool comprises two pairs of legs pivotally connected intermediate their ends for collapsing movement toward each other when the stool is folded, and each of the links connecting the stool with the toggle links are pivotally connected at one end to the adjacent pivotal connection between the stool legs, and pivotally connected at the other end to the pivotal connection between the adjacent toggle links.

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