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(54) Title: FOLDING CANOPY CHAIR

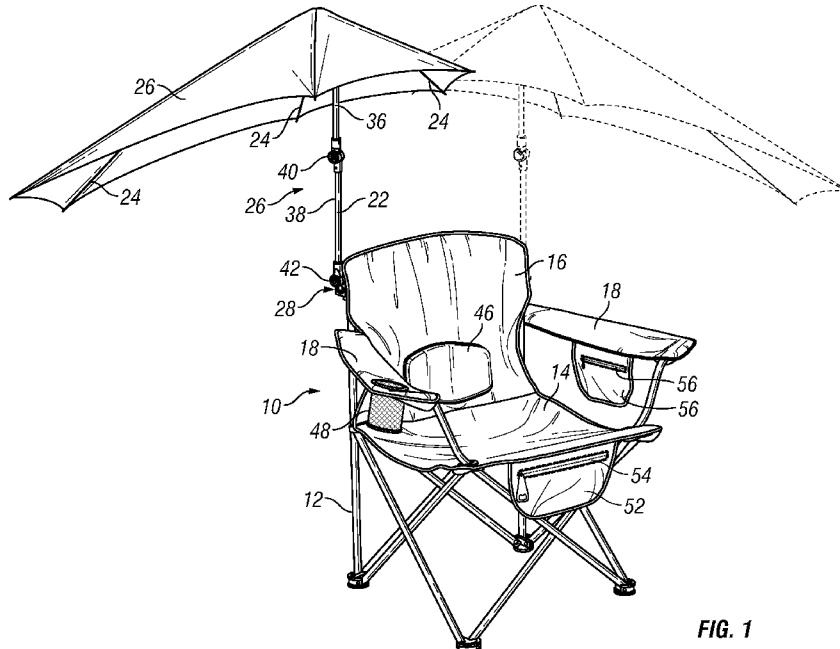


FIG. 1

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(57) Abstract: The folding canopy chair includes a frame, a seat, a back, and arm rests. An umbrella is secured to the frame and is pivotal between an upright use position extending above the chair and a downward storage position adjacent the frame. The umbrella is pivotal about both a horizontal axis and a vertical axis for selective positioning of the umbrella relative to the chair, so as to shade a person sitting in the chair from the sun. The umbrella is non-symmetrical, and is removably mounted on either the left or right side of the chair using a clip.



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TITLE: FOLDING CANOPY CHAIR**CROSS-REFERENCE TO RELATED APPLICATIONS**

5 This application claims priority under 35 U.S.C. § 119 of a provisional application Ser. No. 61/152,303 filed February 13, 2009, which application is hereby incorporated by reference in its entirety.

BACKGROUND OF THE INVENTION

10 Folding chairs having a collapsible frame with fabric materials attached to the frame to form the chair seat and back rest are popular for outdoor activities and events. These chairs fold along perpendicular lateral and longitudinal axes, so as to be compact and fit easily into a sleeve-type bag for carrying and storage.

15 Canopies of various types are known for attachment to numerous types of folding chairs. These prior art canopies are generally symmetrical in shape and typically are mounted to the back of the chair using a pair of support arms on opposite sides of the chair frame, or using a single centered arm or post, such as for an umbrella attachment. These canopies and umbrellas sometimes limit the fold-ability of the chair, or must be removed before the chair is folded. Some canopies or umbrellas are removably or detachably mounted to the frame. These various prior art coverings often provide little adjustability of the canopy or umbrella over the chair to protect the person from the sun or rain.

20 Therefore, a primary objective of the present invention is the provision of an improved folding canopy chair having an adjustable umbrella.

25 An objective of the present invention is the provision of a folding canopy chair wherein the umbrella is pivotal about horizontal and vertical axes.

Another objective of the present invention is the provision of an improved folding canopy chair wherein the chair frame is foldable about two perpendicular axes without disconnecting the umbrella.

30 A further objective of the present invention is the provision of a folding canopy chair wherein the umbrella is asymmetrical and has a single post for mounting to the chair frame.

Still another objective of the present invention is the provision of a folding canopy chair having an umbrella with a jointed support post for adjustability of the umbrella.

Yet another objective of the present invention is the provision of a folding chair having a canopy which can be selectively mounted to the left or right side of the chair.

5 Another objective of the present invention is the provision of a folding canopy chair wherein the umbrella is pivotal approximately 180° between the upright use position and the down storage position, while connected to the chair.

A further objective of the present invention is an improved folding canopy chair wherein the umbrella can be rotated 360° about a vertical axis to shade a person sitting in
10 the chair from the sun.

Another objective of the present invention is the provision of a folding canopy chair having storage pockets attached to the arm and seat of the chair.

A further objective of the present invention is the provision of an improved folding canopy chair having a lumbar support.

15 Still another objective of the present invention is the provision of an improved folding canopy chair having a built-in bottle opener.

Yet another objective of the present invention is the provision of a folding canopy chair where the covering has a metallic undercoating.

Another objective of the present invention is the provision of a folding canopy chair
20 wherein the canopy can be connected to either side of the chair using a clip.

A further objective of the present invention is the provision of a folding canopy chair wherein the umbrella post has two push button hinges for adjustability about horizontal axes.

Another objective of the present invention is the provision of an improved folding
25 canopy chair which is economical to manufacture, and durable and safe in use.

Another objective of the present invention is the provision of an improved folding canopy chair which can be quickly and easily converted between use and storage positions.

SUMMARY OF THE INVENTION

30 The folding canopy chair of the present invention has a detachable canopy or umbrella which can be mounted to either side of the chair via a clip connection. The post

of the umbrella has two push button hinges for pivotal movement about two horizontal axes, while the umbrella top pivots 360 degrees about the post axis, to allow the position of the umbrella over the chair to be adjusted to protect a person sitting in the chair from the sun and/or rain. The chair includes a lumbar support in the back rest, one or more storage 5 pockets, a zipper with a bottle cap opener, and a beverage can and bottle holder. The chair can be folded without removing the canopy from the chair frame. The chair and attached canopy can be inserted into a sleeve bag for storage and carrying.

BRIEF DESCRIPTION OF THE DRAWINGS

10 Figure 1 is a perspective view of the improved folding canopy chair of the present invention, showing the umbrella in alternative positions on the left and right sides of the chair.

Figure 2 is a front elevation view of the canopy chair.

Figure 3 is a left side elevation view of the canopy chair.

15 Figure 4 is a right side elevation view of the canopy chair.

Figure 5 is a view similar to Figure 4 showing one adjusted position of the umbrella.

Figure 6 is a rear elevation view of the canopy chair.

20 Figure 7 is a top plan view of the canopy chair, showing the umbrella in alternative positions rotated about a substantially vertical axis.

Figure 8 is a perspective view of the chair with the umbrella folded down to a storage position adjacent the chair frame.

Figure 9 is an enlarged, exploded view of the clip components of the chair and umbrella.

25 Figure 1- is an enlarged view of one of the push button hinges of the canopy post.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The chair of the present invention is generally designated in the drawings by the reference numeral 10. The chair includes a folding frame 12 which forms the legs of the 30 chair and the supports for the back rest, seat, and arm rests of the chair 10. Fabric material is attached to the frame 12 so as to form the chair seat 14, back rest 16, and arm rests 18.

The frame 12 folds about perpendicular axes extending laterally transverse and longitudinally front to back, so that the chair 10 can be folded and unfolded between a use position and a storage position. The general construction of the frame 12, seat 14, back rest 16 and arm rests 18 may take various forms known in the art, such as the commercially 5 available "Kelsyus" chair.

The chair 10 includes a canopy 20 removably connected to the frame 12. The canopy 20 is in the form of an umbrella, with a post 22, a plurality of spokes 24, and a fabric covering or body 26.

The lower end of the post 22 is mounted to the frame 12 using a clip 28. The clip 10 28 may take any convenient form. In a preferred form, the clip 28 includes a female receptacle 30 fixed to an upper side of the frame 12 adjacent the back rest 16 of the chair 10. The lower end of the post 22 includes a male member 32 with a resilient tab 34 received in the female receptacle 30 so as to lock the canopy 20 to the frame 12. The receptacle 30 has an opening so that a person's finger can depress the tab 34 to unclip the 15 umbrella 20 from the chair 10. The resilient tab 34 allows the canopy 20 to be removed from the female receptacle 30. As seen in the drawings, a female receptacle 30 is provided on both the left and right sides of the frame 12, such that the canopy 22 can be selectively positioned in either side of the chair 10, as desired by a person sitting in the chair.

In the preferred embodiment, the post 22 of the canopy 20 has upper and lower 20 segments 36, 38. A push button hinge 40 is provided at the juncture of the upper and lower segments 36, 38, to allow the upper segment 36 to pivot forwardly and rearwardly approximately 180° - 270° about a horizontal axis relative to the lower segment 38. A second push button hinge 42 is provided at the bottom of the lower segment 38, adjacent the male clip member 32, which allows the lower segment to pivot forwardly and 25 rearwardly at least 270° between the arm rests of the chair 10 and the back corner of the frame 12. Preferably, the hinge 42 allows 360° rotation of the umbrella 20 relative to the chair 10. The push button hinge 42 allows the canopy 20 to move between a use position extending above the chair 10 and a storage position adjacent the frame 12. The hinges 40 and 42 lock in position at incremental angles. When the button of the hinge is depressed, 30 the hinge is unlocked to allow rotational movement about the button axis. When the button is released, the hinge locks in the selected angular orientation. Thus, the umbrella can be

pivoted about one or both hinges 40, 42 to provide shade to the chair 10, depending on the sun angle relative to the chair. The post segments 36, 38 can be co-axially aligned, as shown in Figures 1-4, or may be disposed at various angles, as shown in one example of Figure 5.

5 A Velcro strap 44 may be provided to hold the collapsed umbrella body 26 in the storage position, as shown in Figure 8. The Velcro strap 44, if long enough, may also extend around the frame 12 to secure the canopy 20 in the storage position. The storage position of the canopy 20 can be maintained when the chair 10 is folded open for use or folded down for storage and carrying in a sleeve bag (not shown).

10 The body 26 of the canopy or umbrella 20 is rotationally mounted on the upper end of the post 22 for 360° rotation in either direction about the axis of the upper post segment 36. Thus, rotation of the body 20 about the axis of the upper post segment 36, and the pivotal movement of the post segments 36, 38 about the horizontal axes of the push button hinges 40, 42 allows the canopy or umbrella 20 to be selectively positioned by persons 15 sitting in the chair to provide the desired protection from the sun, wind and/or rain. The umbrella 20 can also be clipped to either side of the chair, depending on the sun angle, for the best protection.

20 The shape of the body 26 of the canopy or umbrella 20 is non-symmetrical, with the post 22 being offset with respect to the center of the body 26. The spokes 24 do not have equal lengths, as in a conventional umbrella. For example, as best seen in Figure 7, there 25 are two short spokes, two long spokes and two intermediate spokes. This offset, non-symmetrical shape of the canopy or umbrella 20 allows the umbrella to be mounted to one side of the chair frame 12, while still providing shade or protection across the full width of the chair 10, as best shown in Figure 7. The umbrella shape defines a long side, a short side, and opposite lateral sides, any of which may be positioned toward the front of the chair 10, to provide desired shade while also allowing a person sitting in the chair to view an activity or event without obstruction by the umbrella. Preferably, the underside of the body 26 has a coating or metallic layer to provide enhanced ultraviolet protection and heat resistance.

30 The chair 10 has additional unique features for comfort and convenience. Padding may be provided in the fabric of the seat 14, back rest 16, and arm rests 18. A lumbar

support 46 is provided in the back rest 16 for added comfort. A beverage receptacle 48 may be provided in one or both of the arm rests 18. Storage pockets 50, 52 may be provided on one or more of the arm rests 18 and on the front of the seat 14. Preferably, the pockets 50, 52 include zippers 54 for opening and closing the pockets. One of the zippers 54 may also include a bottle cap opener on the zipper pull.

In use, when a person is finished sitting in the chair 10, the spokes or ribs 24 can be quickly and easily collapsed or retracted to fold down the umbrella body 26 by pulling downward on a collar slidably mounted on the post 22 and to which the inner ends of the spokes are attached, similar to a conventional umbrella. Then, the post segments 36,38 are straightened, if angularly oriented, by depressing push button hinge 40. Then, the push button hinge 42 can be actuated so that the post 22 can be folded rearwardly and downwardly to a position adjacent the rear corner of the frame 12. The frame 12 can then be folded to a fully collapsed position and inserted into a carrying bag or case, as is known in the art, without detaching the canopy 20. The left and right side clips, the button hinges, and the rotational body of the umbrella allow for substantially infinite positioning options of the umbrella relative to the chair.

The invention has been shown and described above with the preferred embodiments, and it is understood that many modifications, substitutions, and additions may be made which are within the intended spirit and scope of the invention. For example, the post 22 can be detachably connected to the frame 12 with a connector or mounting means other than the clip 28, and different hinges may be used for pivoting the post 22 relative to the frame 12 or chair 10. The post 22 may also be a single piece or multiple pieces, or have a telescoping construction. The structure of the chair may also vary from that shown in the drawings.

From the foregoing, it can be seen that the present invention accomplishes at least all of its stated objectives.

What is claimed is:

1. In combination,
a folding chair having a frame and fabric connected to the frame to form a seat and a back
5 rest;
the frame having opposite left and right sides;
an umbrella including a single post with upper and lower ends, a plurality of spokes
foldably extending radially outward from the upper end of the post, and a fabric
covering on the spokes; and
10 the post being removably and selectively connected at a single connection point to the left
or right side of the frame.
2. The combination of claim 1 wherein the post includes pivotally connected upper
and lower segments, whereby the upper segment is pivotal relative to the lower segment
15 such that the position of the fabric covering can be adjusted relative to the chair.
3. The combination of claim 2 wherein the lower segment of the post is pivotal
adjacent the connection point for further adjustment of the fabric covering relative to the
chair.
20
4. The combination of claim 2 wherein the upper and lower segments pivot at least
180° relative to one another.
5. The combination of claim 1 wherein the post is pivotal adjacent the connection
25 point such that the orientation of the fabric covering is adjustable.
6. The combination of claim 5 wherein the post pivots 360° about a horizontal axis
relative to the frame.
30
7. The combination of claim 1 wherein the spokes are pivotally connected to the post
such that the fabric covering can be rotated 360° about an axis of the post.

8. The combination of claim 1 wherein the connection point includes a clip.
9. The combination of claim 1 wherein the post has at least one locking push button hinge for selective forward and rearward positioning of the umbrella relative to the chair.

5

10. An improved folding chair having a frame, a seat, and a back rest, the improvement comprising:

an umbrella secured to the chair;

the umbrella being pivotal about substantially perpendicular axes for selective positioning

10 so as to shade a person sitting in the chair from the sun.

11. The improved folding chair of claim 10 wherein the umbrella is non-symmetrical.

12. The improved folding chair of claim 10 wherein the umbrella is selectively

15 removably mounted on either the left or right sides of the chair.

13. The improved folding chair of claim 10 wherein the umbrella includes a post having pivotally joined upper and lower segments.

20 14. The improved folding chair of claim 10 wherein the umbrella has two horizontal pivot axes.

15. The improved folding chair of claim 10 wherein the umbrella is pivotal between a use position providing shade to a person sitting in the chair and a storage position adjacent 25 the chair frame.

16. An improved folding chair having a frame, a seat, and back rest, the improvement comprising:

a non-symmetrical umbrella attached to the chair and being adjustably positioned relative 30 to the seat.

17. The improved folding chair of claim 16 wherein the chair has opposite sides, and the umbrella has a single post for attachment to one side.

18. The improved folding chair of claim 17 wherein the post can be selectively attached

5 to either side of the chair.

19. The improved folding chair of claim 16 wherein the umbrella has perpendicular pivot axes for adjustable positioning relative to the chair.

10 20. The improved folding chair of claim 16 wherein the umbrella has a post, a plurality of spokes, and a fabric covering, with the spokes and the covering being rotatable 360° relative the post.

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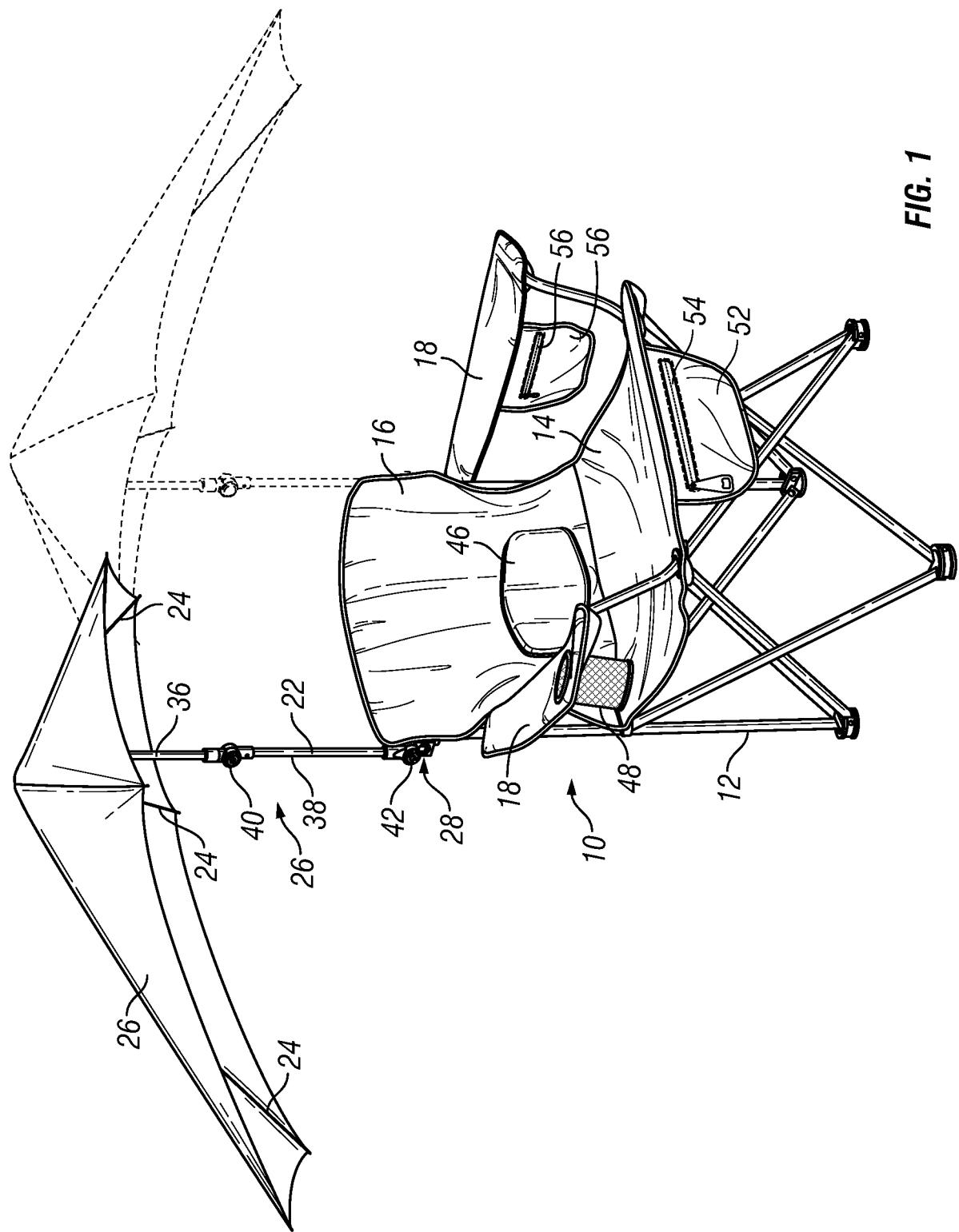


FIG. 1

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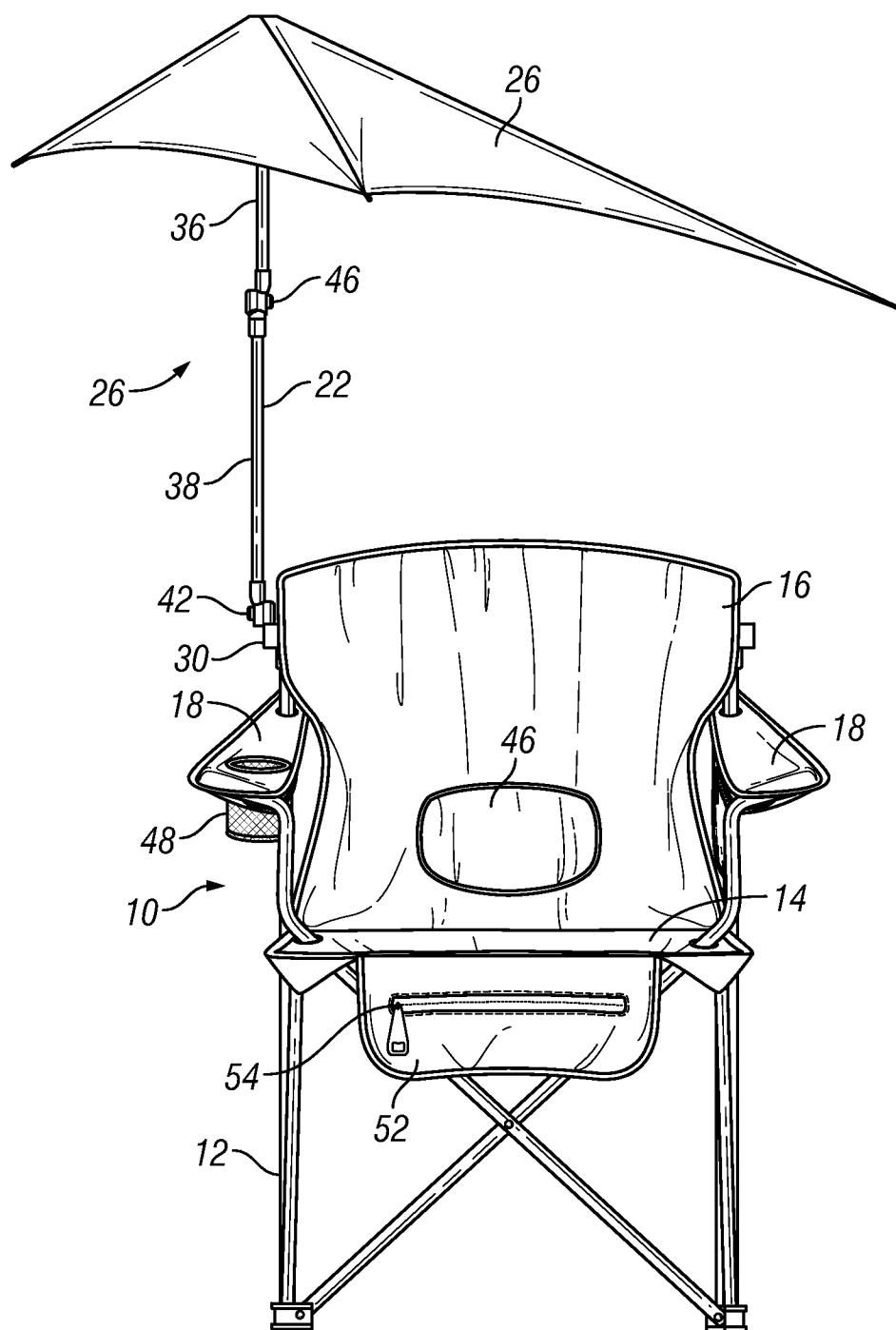


FIG. 2

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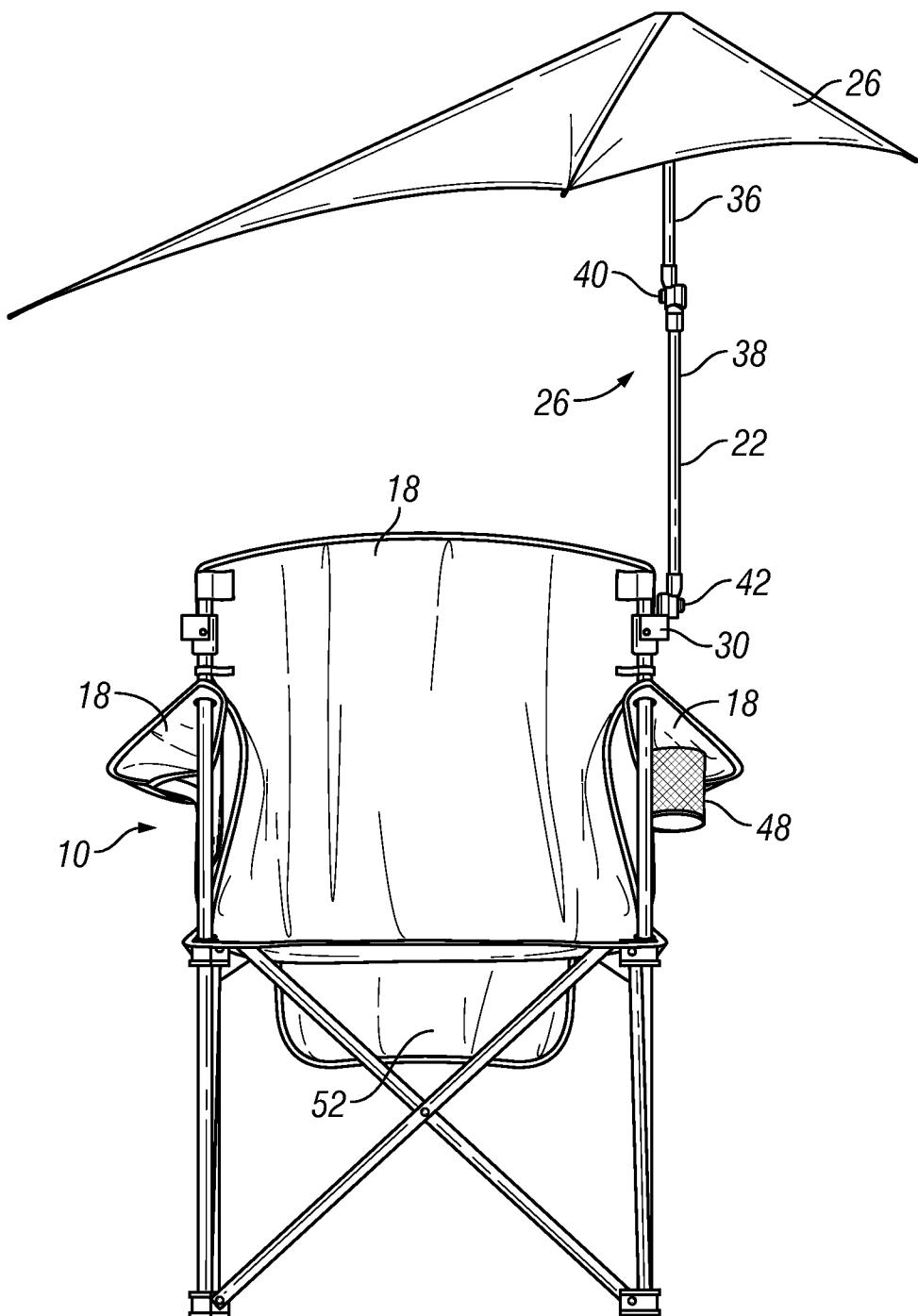


FIG. 3

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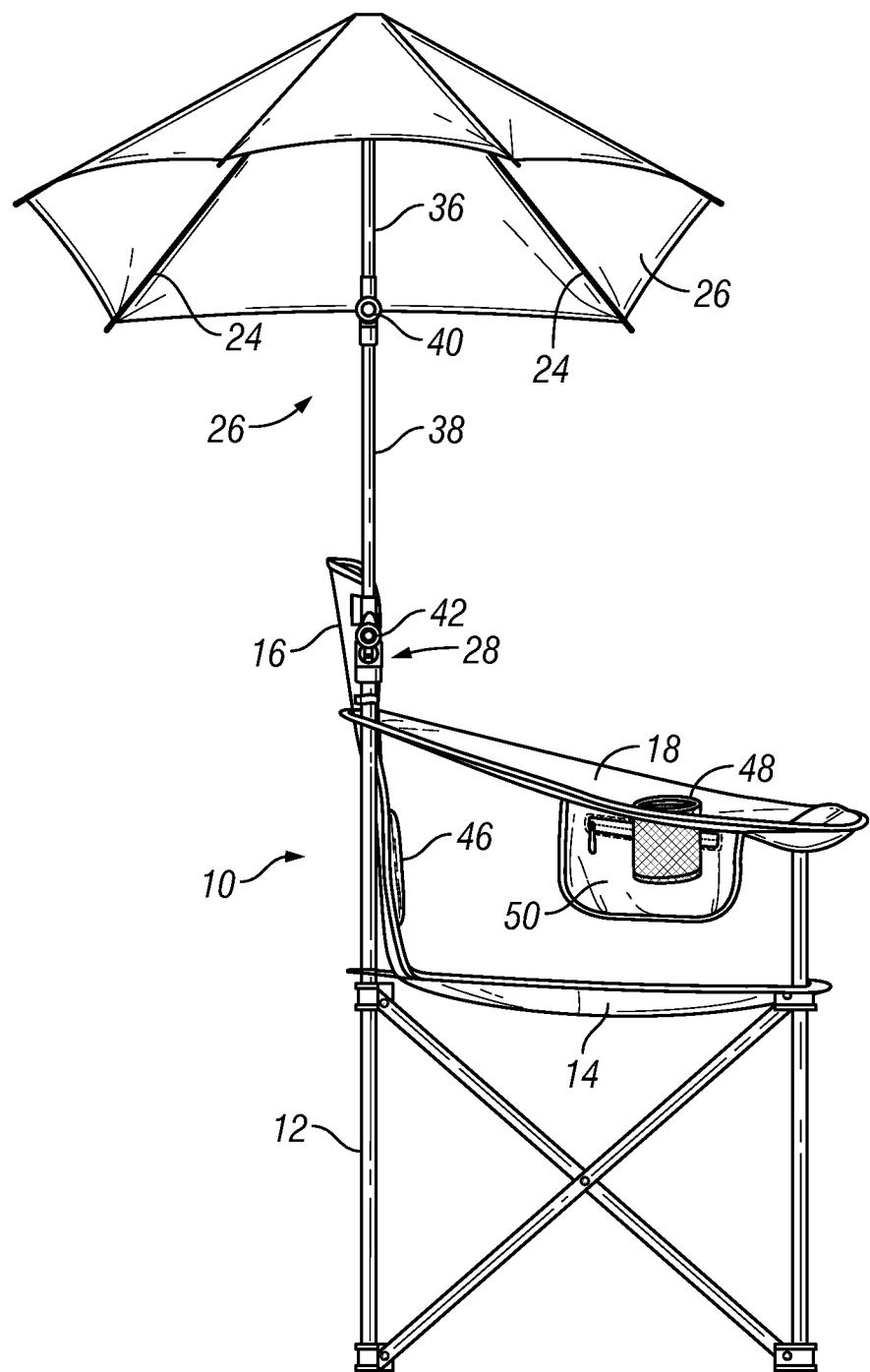


FIG. 4

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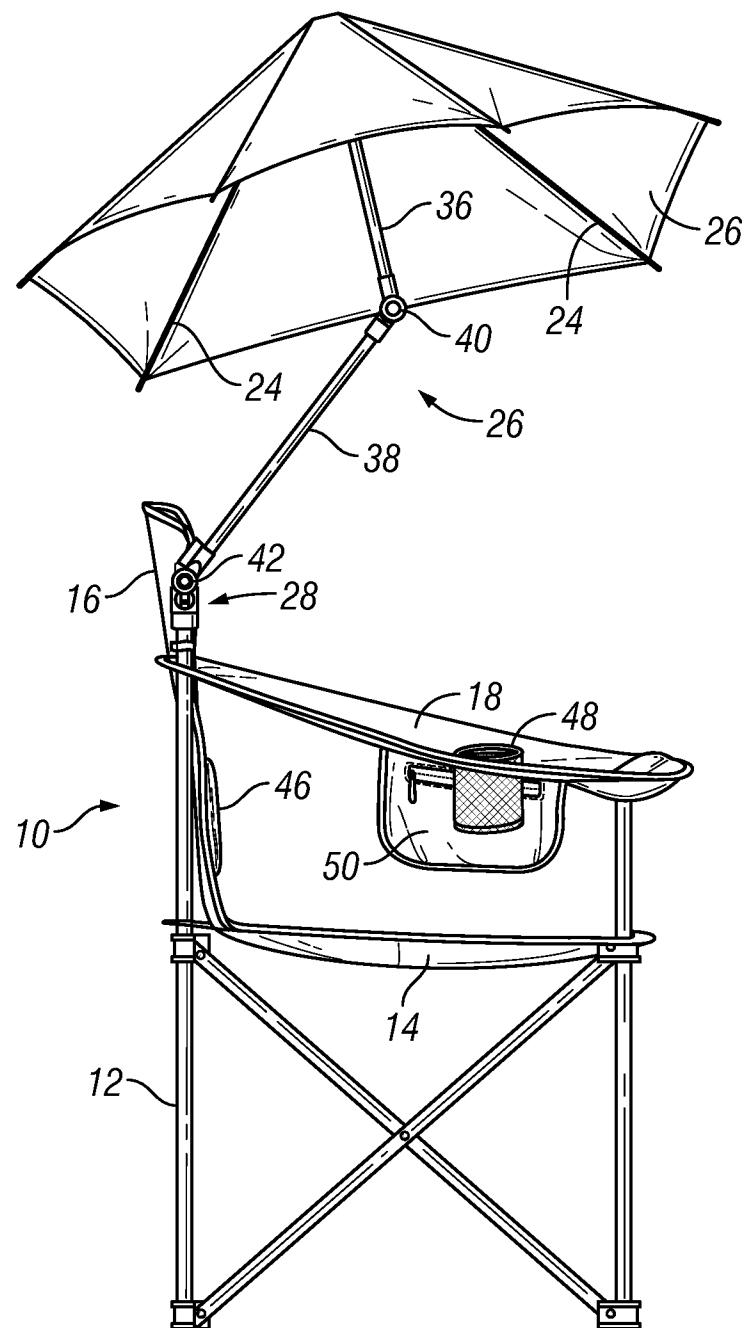


FIG. 5

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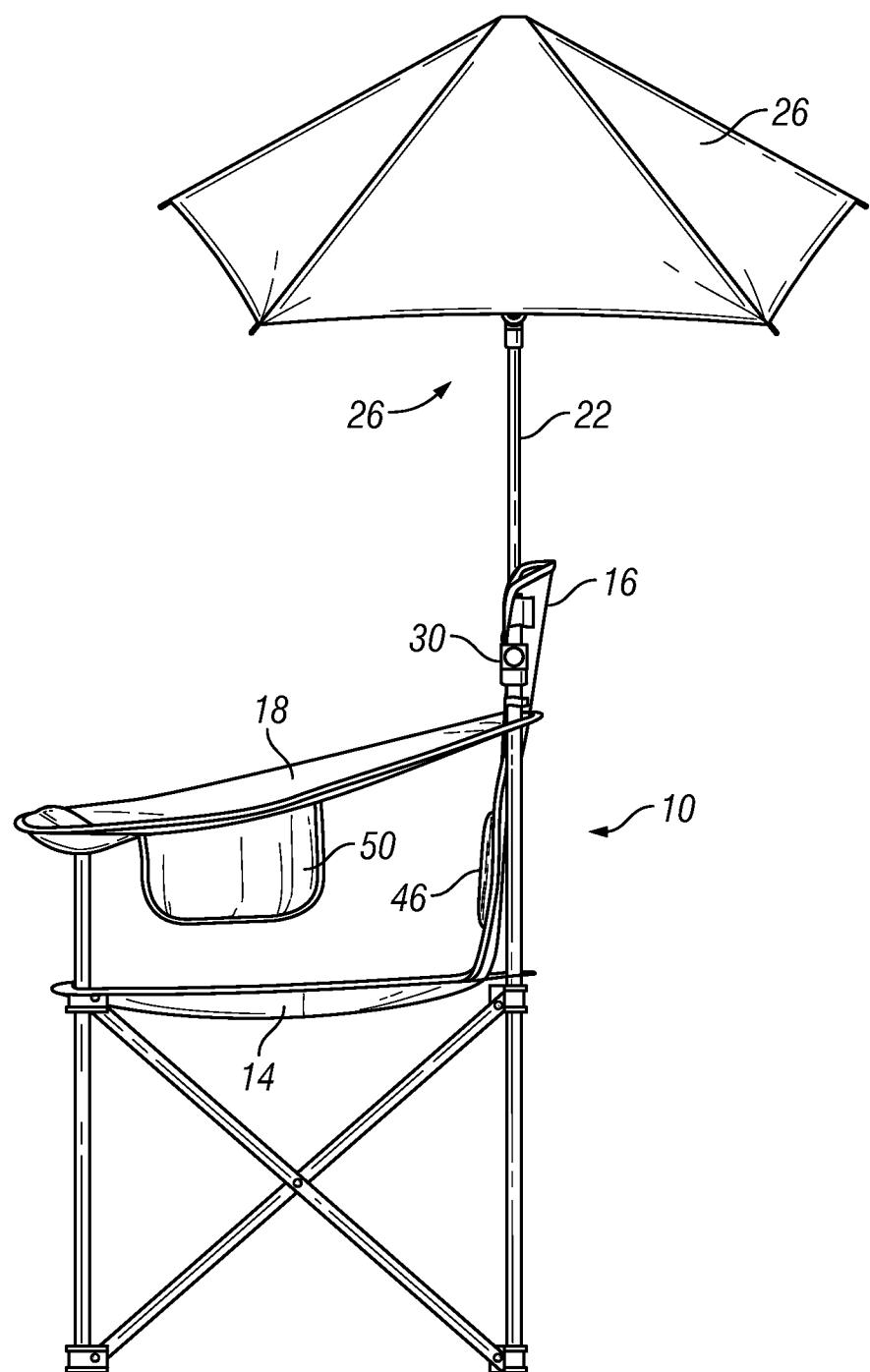
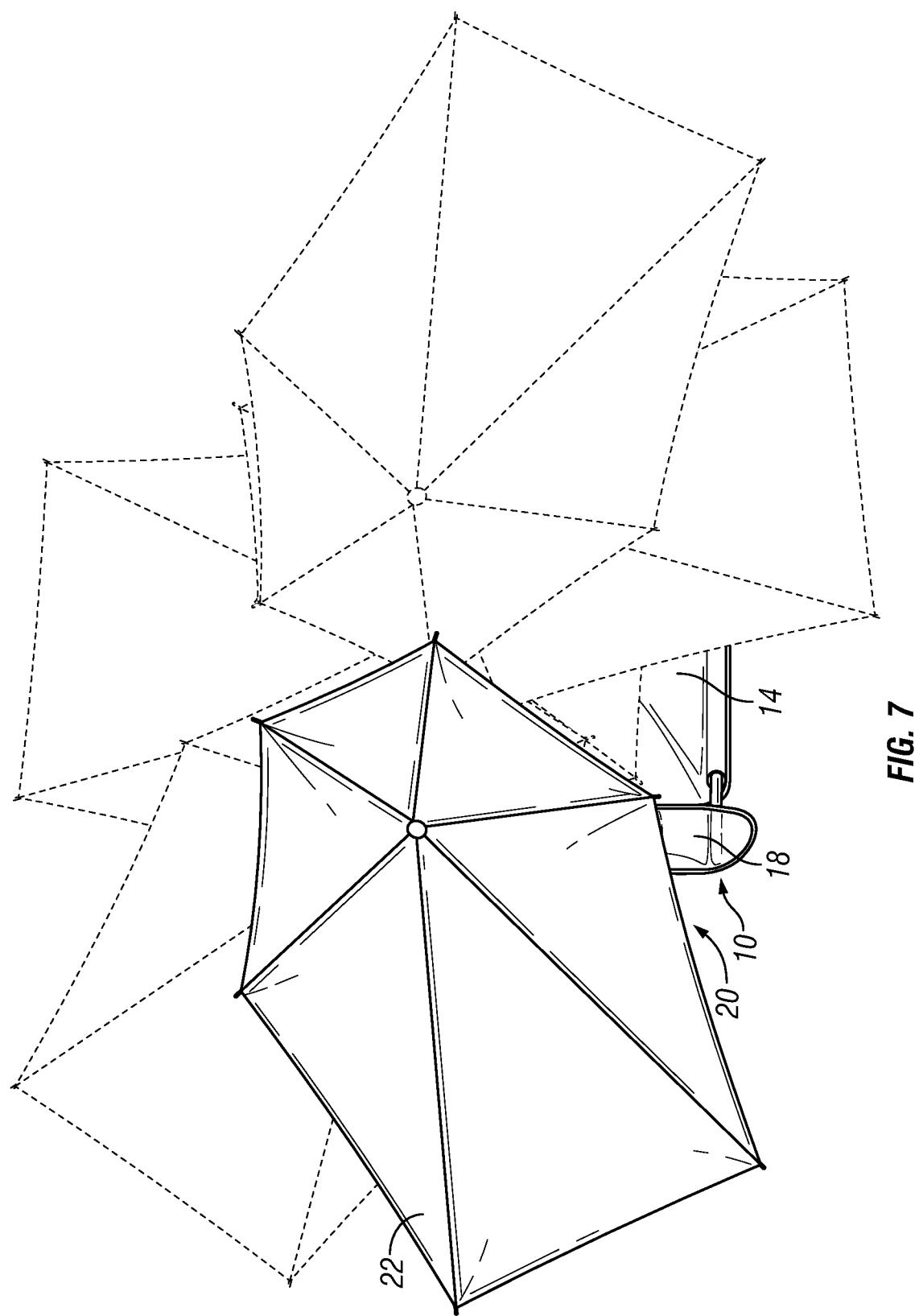


FIG. 6

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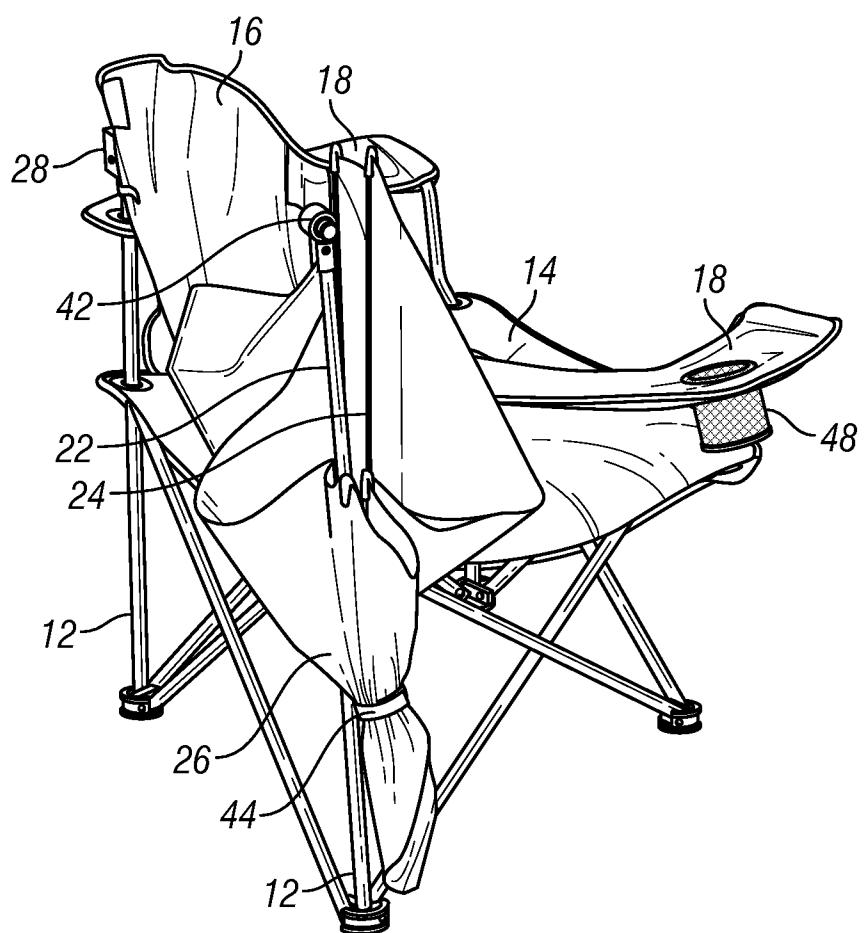


FIG. 8

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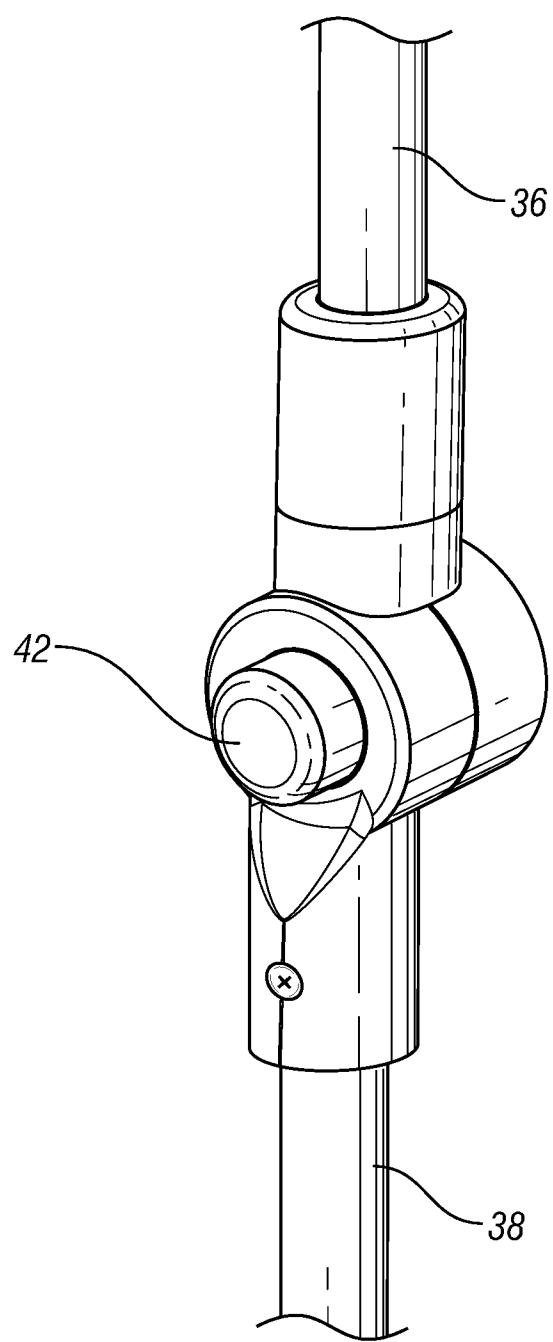
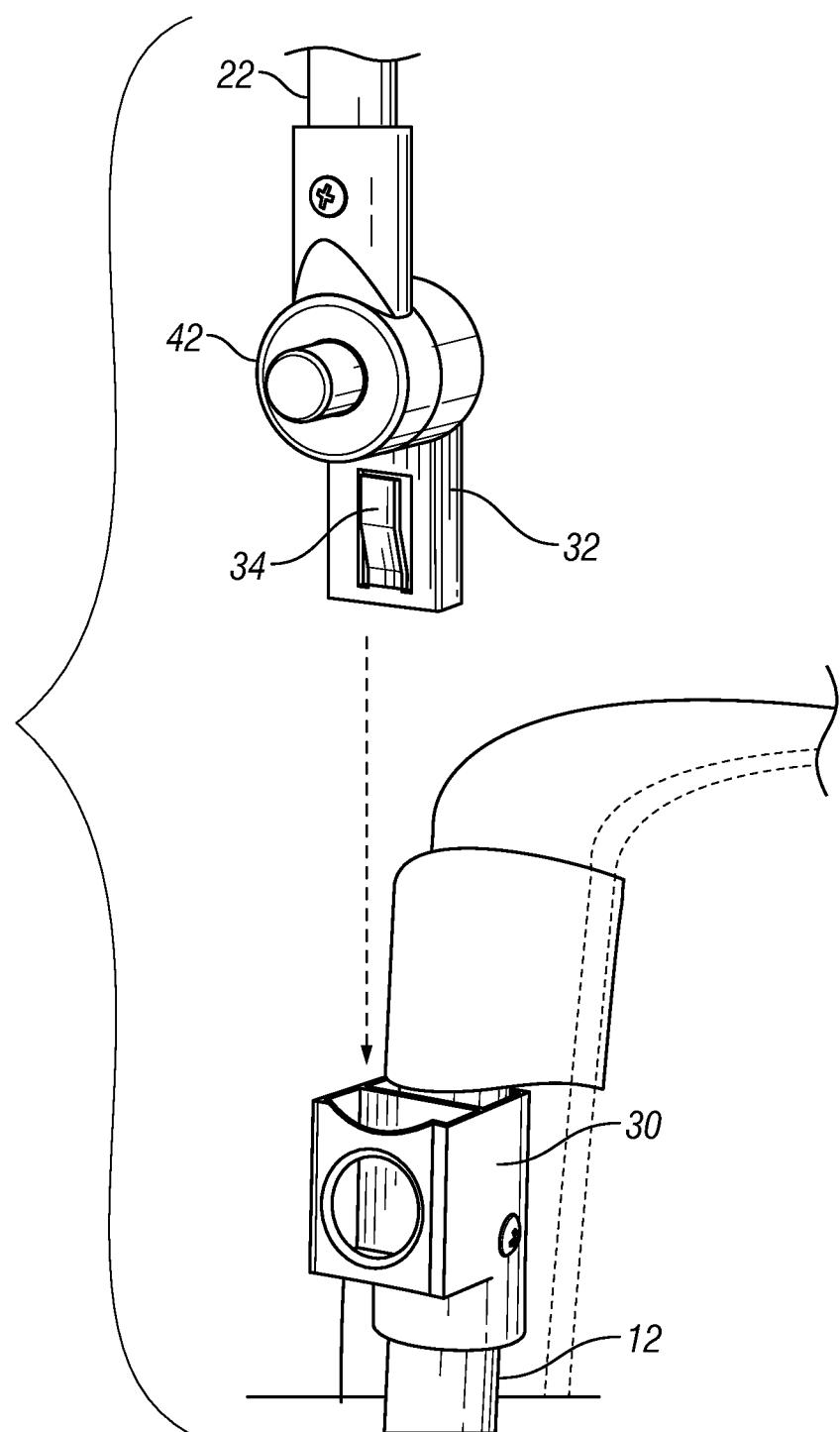


FIG. 9

10/10**FIG. 10**