Feb. 6, 1934. C. A. FROST 1,946,137

COMBINED BEACH BENCH, LOCKER, AND SUNSHADE

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Fig. 1

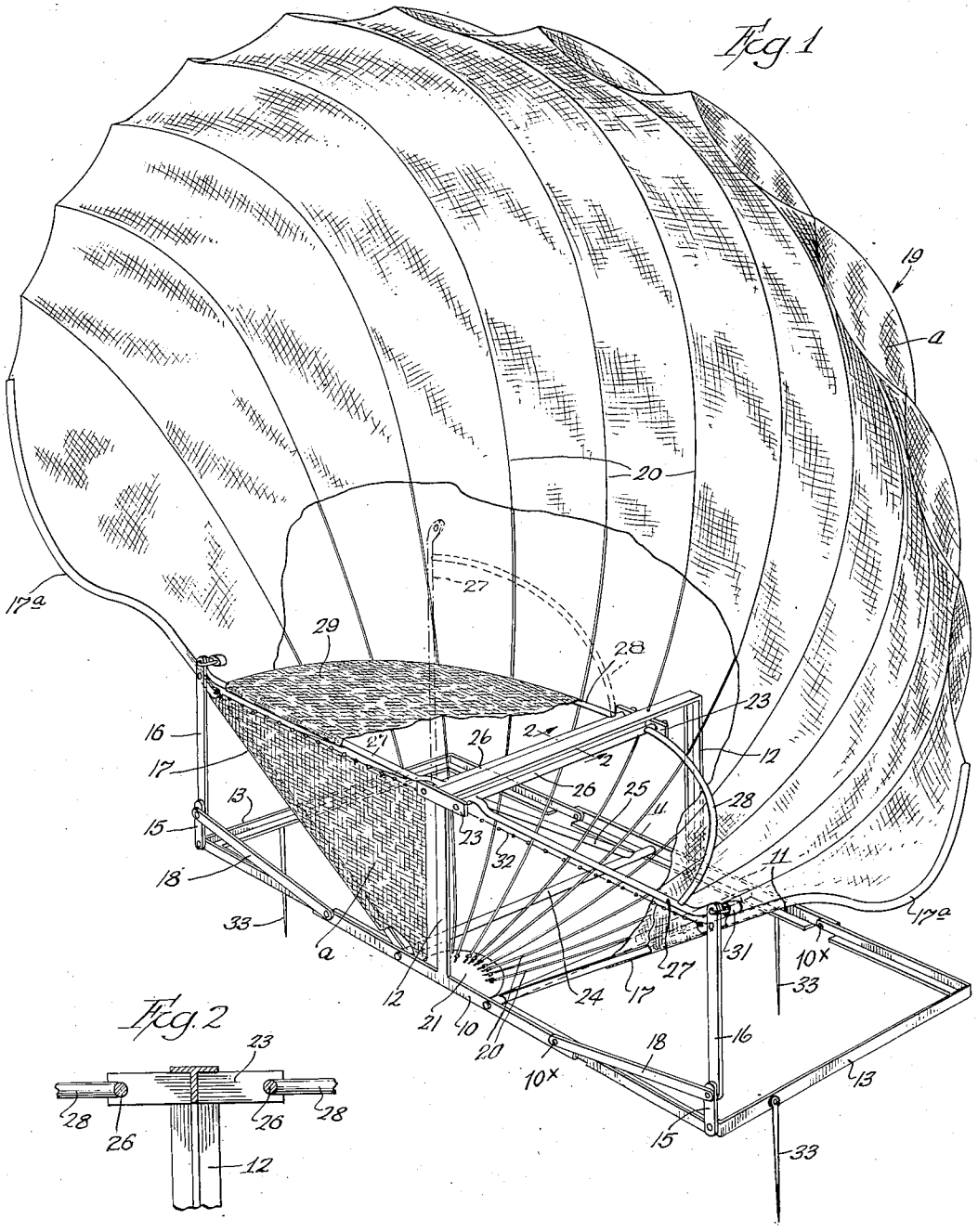



Fig. 2




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Fig. 3

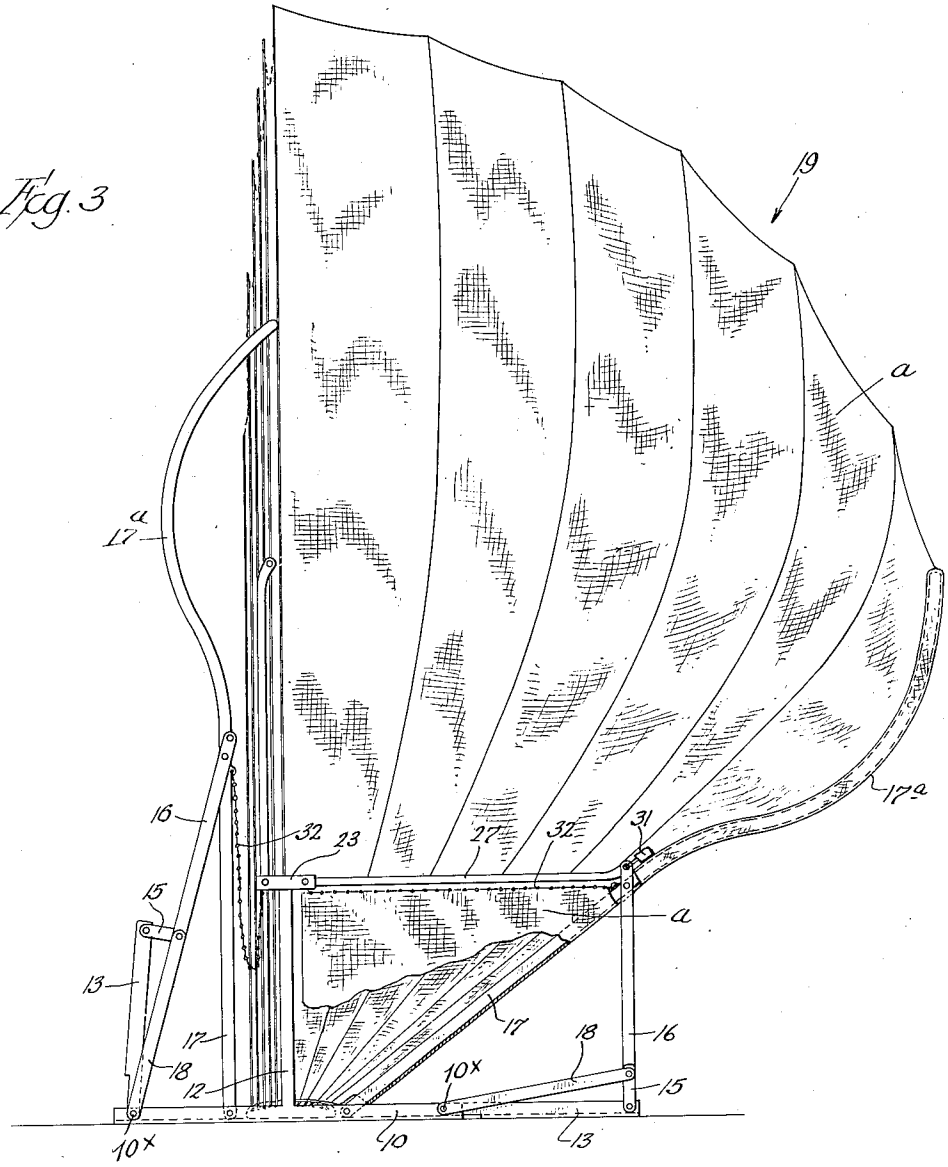
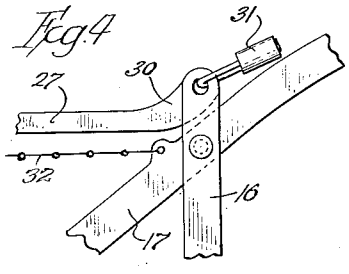



Fig. 4




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COMBINED BEACH BENCH, LOCKER, AND SUNSHADE

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Fig. 6

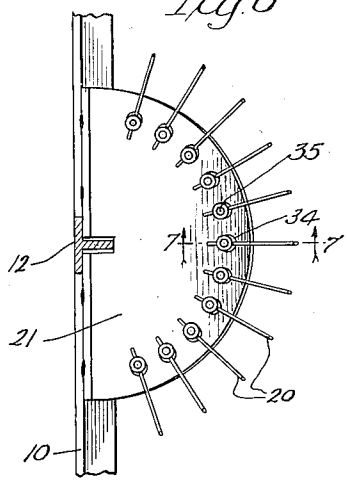



Fig. 7

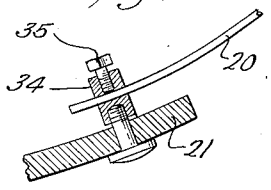



Fig. 5

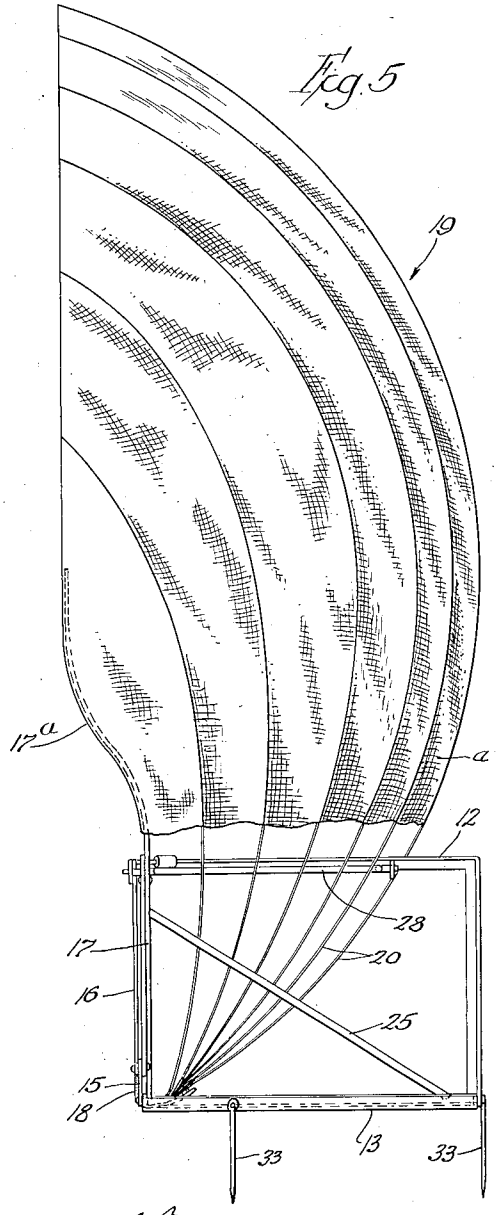



Fig. 8

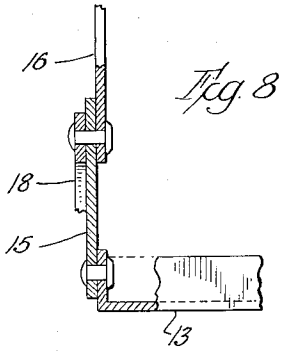
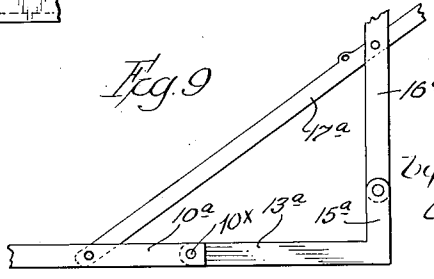



Fig. 9




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COMBINED BEACH BENCH, LOCKER, AND SUNSHADE

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Fig. 10.

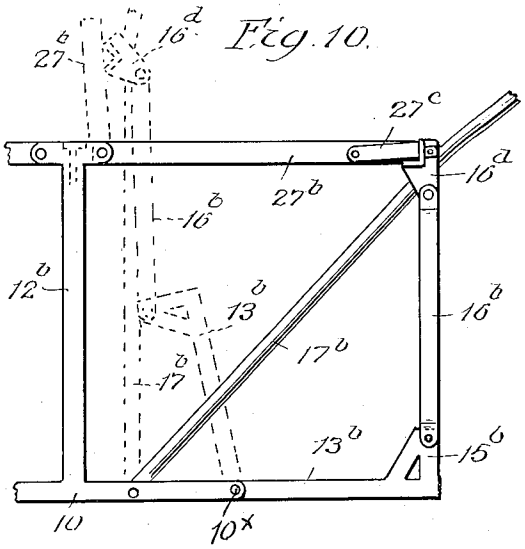



Fig. 11.

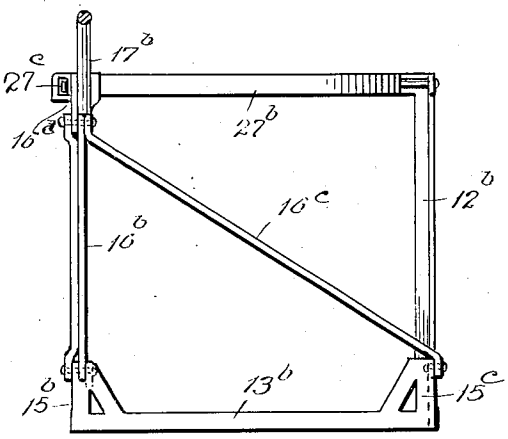



Fig. 12.

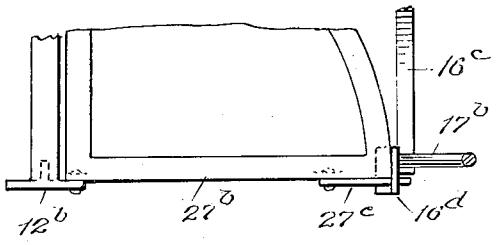



Fig. 13.

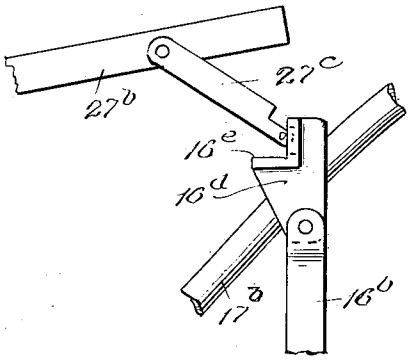
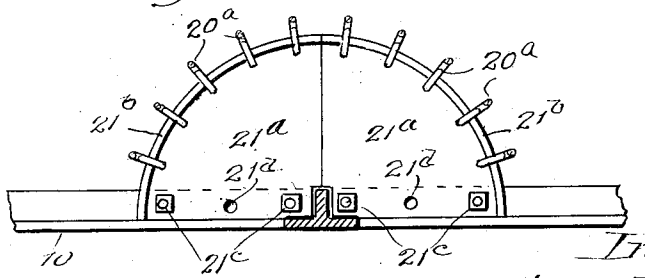



Fig. 14.




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Patented Feb. 6, 1934 1,946,137

# UNITED STATES PATENT OFFICE

1,946,137

## COMBINED BEACH BENCH, LOCKER, AND SUNSHADE

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Application February 3, 1933. Serial No. 654,989

13 Claims. (Cl. 155—1)

This invention relates to a combined beach bench, locker and sunshade and its principal object is to provide an article of furniture for use at beaches and in which is comprised a bench that provides a locker, the cover of which serves as the seat of the bench and the bottom and sides of which are extended upward behind and above the seat in gracefully curved lines simulating a sea shell to provide a sunshade for persons using the seat. The invention further consists in an article of furniture as above described, which is readily collapsible for storage or transportation and which can be quickly extended into condition for use by unskilled persons. The invention further consists in the several novel features of construction, arrangement and combination of parts hereinafter fully set forth and claimed.

The invention is clearly illustrated in the drawings accompanying this specification in which.

Fig. 1 is a perspective view of a combined beach bench, locker and sunshade embodying a simple form of the present invention and showing the covering material partly broken away to illustrate parts that otherwise would be hidden from view;

Fig. 2 is a detail vertical cross section taken on the line 2—2 of Fig. 1;

Fig. 3 is a front elevation of the device showing the right hand portion thereof extended for use and the left hand portion stripped of the covering material and collapsed for the purpose of storage or transportation;

Fig. 4 is a fragmental front elevation of certain frame members of the base;

Fig. 5 is a side elevation of the device partly broken out;

Fig. 6 is a plan of the supporting plate for the ribs of the sunshade;

Fig. 7 is a detail section taken on the line 7—7 of Fig. 6;

Fig. 8 is an enlarged fragmental end elevation partly broken out of certain frame members of the base;

Fig. 9 is a fragmental front elevation of certain frame members of the base showing a slight modification thereof;

Fig. 10 is a fragmental front elevation of another modified form of frame;

Fig. 11 is an end elevation thereof;

Fig. 12 is a fragmental plan thereof;

Fig. 13 is a detail front elevation of the locking means employed in this modified form, and

Fig. 14 is a fragmental plan of a modified form of the base plate for the ribs.

Referring to said drawings and first to Figs. 1 to 8 inclusive, which illustrate a simple embodiment of the invention, the reference characters 10, 11 designate front and rear horizontal frame bars which extend lengthwise of the structure and are connected by an upright centrally located cross frame member 12, the lower ends of which are welded or otherwise rigidly secured to the frame bars 10, 11.

Pivotally connected to the ends of the frame bars 10, 11 as by rivets $10^x$ or the like are end frame members 13. The front and rear frame bars 10, 11 and end frame members 13 provide a rectangular base which when extended is adapted to rest upon the sand and to support the device in its extended position. The pivotal connections between the end frame members 13 and the frame bars 10, 11, enable the end frame members to be swung up to collapse the device. To the front corners of the end frame members 13 are pivotally connected links or bars 15 and to the upper ends of said links 15 are pivotally connected upright frame bars 16 which connect with diagonal brace bars 17 that extend to the frame bars 10 and are pivotally connected thereto. Horizontal and diagonal brace bars 24, 25 connect with the oblique bars 17 and provide triangular shaped braces therefor. Desirably the lower ends of the oblique bars 17 and diagonal bars 25 of each set are welded to the horizontal bar 24 and the upper ends of the oblique bar and diagonal bar are welded together to form the triangular shaped brace. The horizontal bars 24 turn in the front and rear frame bars 10, 11. Oblique brace bars 18 pivotally connect the joint between the bars 15 and 16 with the frame bar 10. The upright frame bars 16 provide supports for the seat as will be hereinafter explained.

The oblique bars 17 are extended beyond the upright frame bars 16, and said extensions $17^a$ comprise the end ribs of the sunshade 19, the intermediate ribs 20 of which extend from a base plate 21, in upwardly and rearwardly inclined directions, spreading and curving forward as they progress in an upward direction, finally converging slightly at their extreme forward ends and terminating in a plane somewhat in front of the seat. Canvas or like material $a$ connects the ribs and forms the sunshade, which as shown takes the form of a sea shell. The base plate 21 is rigidly secured to the frame bar 10.

Welded or otherwise rigidly secured to the upright cross frame 12, are short horizontal bars 23 to which the seat is pivotally connected. The seat is preferably composed of two companion sections disposed approximately in the same hori-

zontal plane as the cross bar of the cross frame 12.

Each seat section comprises a frame composed of a horizontal transversely extending rod 26 which turns in apertures formed in the short bars 23, a rod 27 secured to and extending at right angles to the rod 26 and forming the front edge of the seat section and a curved rod 28 secured to and connecting the rods 26, 27 and a seat 29 formed of canvas, metal or the like is fastened upon the rods, 26, 27, 28 and provides the seat proper. Each rod 27 is provided at its free end with an ear 30 having a hole that is adapted to register with a hole in the upper end of the upright frame bar 16 to receive a bolt or a loop of a padlock 31 for securing the seat to the upright frame bar 16, whereby to hold the structure in extended position and also to lock the seat in place. The curved rods 28 conform to the curved shape of the sunshade 19 and bear against the same when the seat sections are lowered.

It will be understood that the canvas or other covering *a*, for the sunshade extends underneath the seat practically to the front of the base and forms the bottom, sides, and ends of a compartment which conveniently may comprise a locker for receiving wearing apparel and other articles which it is desirable to store. The front of the locker may be formed by extending the canvas *a*, upward from the bars 17 along the front of the base and fastening the horizontal upper edges of the canvas to wire or chainlike connections 32 that extend between the short bars 23 and the oblique bars 17. The entire front of the base frame may of course be covered with canvas or the like to add to the attractiveness of the device.

Desirably anchors 33 in the form of pins or rods pivotally connected to the end frame members 13 and to the rear frame bar 11 are provided for anchoring the structure in place in the sand. To increase the tension upon the ribs 20 of the sunshade, their lower ends may extend through posts 34 having swiveled connections with the plate 21 and provided with set screws 35 impinging upon the ribs 20. The ribs 20 are adjusted in the posts 34 to properly distend the sunshade and then locked in place with the set screws 35.

To collapse the structure, the bolts or locks 31 are detached from the bars 27, 16, whereupon the seat portions may be swung upward. The oblique bars 17 are then swung toward each other, thereby swinging up the end frame members 13 into the position seen at the left in Fig. 3 and at the same time collapsing the sunshade upon itself. In this collapsed condition the structure may be readily carried about or may be stored away when not in use.

In the modified form seen in Fig. 9, the bar or link $15^a$ is made rigid with the remainder of the end frame $13^a$ and the upright frame member $16^a$ is pivotally connected to the upper end of the bar $15^a$. The oblique bar $17^a$ is pivotally connected to the front frame bar $10^a$ and to the upright frame bar $16^a$ as in the preferred form.

In the modified form shown in Figs. 10 to 13 inclusive, each end frame $13^b$ is formed with ornamental upstanding corner pieces $15^b$, $15^c$, and the upstanding frame member $16^b$ is pivoted at its lower end to the corner piece $15^b$. A diagonal brace $16^c$ extends from the upper end of the upright frame member $16^b$ to the rear corner piece $15^c$ and is pivotally connected thereto. A bracket $16^d$ is pivotally connected to the upper end of the upright frame member $16^b$ and the diagonal brace rod $17^b$ is welded or otherwise rigidly connected to the bracket $16^d$. The end frame is pivotally connected to the front and rear frame bars of the middle frame, and the brace rod $17^b$ is pivotally connected to the front frame bar as in the preferred form. Each seat section $27^b$ is pivotally connected to the upper ends of the upright frame bars $12^b$ and its free end rests upon the bracket $16^d$, the latter being formed with an angle shaped part $16^e$ to receive the seat section. For locking the seat section to the bracket $16^a$, a latch $27^c$ is pivoted on the seat and enters a hole in the part $16^e$ of the bracket and has a hole near its end in which a pin or lock may engage.

When swung up into folded position the pivotal connection between the corner piece $15^b$ and the frame bar $16^b$ moves past a line between the pivotal connection of the end frame $13^b$ with the main frame, and the pivotal connection of the frame bar $16^b$ with the bracket $16^d$ thereby locking the parts in folded position.

In the modified form of base plate shown in Fig. 14, it is made of two companion sections $21^a$, having upstanding flanges $21^b$ to which the ribs $20^a$ may be attached as for instance by providing loops on the lower ends of the ribs which extend through holes in the flanges. The base plate is removably secured to the frame bar 10 by bolts $21^c$ or otherwise as desired. Registering holes $21^d$ in the base plate sections and frame bar provides means whereby one may, by inserting a rod through the two holes, force the base plate section into place on the frame bar.

While the article above described has been designated as a combined beach bench, locker and sunshade, for use at beaches, it is, of course, to be understood that its use is not limited to beaches, but that it may be used at swimming pools, hotels, gardens and in fact at any place where such an article is desirable. The exact shape and size is not material and is capable of considerable variation.

I claim as new and desire to secure by Letters Patent:

1. A unitary beach structure in which is comprised a foldable bench frame, having a seat thereon, bowed ribs pivotally connected to said bench frame below the seat and extending backwards and upwards behind the seat and thence over the same, a covering connecting the ribs and forming therewith a collapsible sunshade, and connections between the bench frame and sunshade for holding the latter in distended position.

2. A unitary beach structure comprising a base frame composed of a middle section, having an upright cross frame secured thereto, and upwardly foldable end sections pivotally connected to the middle section, upwardly foldable seat sections pivotally mounted on the cross frame, diverging ribs swingably secured to the front part of the middle section of the base frame and extending backward and upward behind the seat sections and thence over the same, a covering secured to and connecting said ribs and forming therewith a sunshade, and upright end frame bars rising from the end sections, the endmost swingable ribs being detachably connected to said upright end frame bars, whereby the sunshade is held in distended condition, the sunshade, seat sections and end sections being capable of being folded together.

3. A unitary beach bench, locker and sunshade comprising a base frame composed of a middle section having an upright cross frame secured thereto, and upwardly foldable end sections pivotally connected to the middle section, upwardly foldable seat sections pivotally mounted on the cross frame, bowed ribs swingably secured to the front part of the middle section of the base frame and extending back underneath the seat sections, thence upward and over the same, a covering secured to and connecting said ribs to provide a bottom wall for the locker, and a sunshade above the seat section, a front wall for said locker and means distending the sunshade, pivotally connected to the base frame, said means and therewith the ribs and covering being capable of being folded together.

4. A unitary beach structure in which is comprised a foldable base frame, having a middle frame member and end frame members pivotally connected thereto, and an upright cross frame secured to the middle frame member, swingable upright frame bars pivotally connected at the ends of the end frame members, swingable oblique frame bars pivotally connected to the middle frame member and pivotally connected with the upright frame bars, seat frames, pivotally mounted upon said cross frame and connectible with said upright frame bars, ribs mounted on said base frame and extending backwards from said base frame and then upwards and forwards above the seat frames, and covering material connecting said ribs with said oblique frame bars to provide a sun shade.

5. A unitary beach structure in which is comprised a rectangular base frame, an upright cross frame rising therefrom, upright frame bars at the front corners of the base frame, oblique frame bars connecting said base frame with the upright frame bars, said oblique frame bars being extended to provide end ribs of a sunshade, other ribs mounted on said base frame, covering material connecting all of said ribs to form a sunshade, and seat sections swingably mounted on said cross frame, and having locking connections with said upright frame members.

6. A unitary beach structure in which is combined a jointed base frame, an upright cross frame, upright end frame bars swingably connected to said base frame, oblique frame bars connecting said base frame with said upright end frame bars, ribs mounted on said base frame, covering material connecting said ribs, flexible connections between said upright cross frame, and the oblique frame bars, covering material connecting said flexible connections and oblique frame bars, and seat sections swingably mounted on said upright cross frame and having locking connections with said upright end frame bars.

7. A unitary beach structure, in which is comprised a jointed base frame, having a middle section and end frame members pivotally connected thereto, and an upright cross frame secured to the middle section, upright end frame bars extending up from the front corners of the end frame members, oblique frame bars connecting the middle section of the base frame with said upright end frame bars, horizontal and diagonal brace bars rigidly connected to said oblique frame bars, and seat sections pivotally connected to said cross frame and having locking connections with said upright end frame bars.

8. A unitary beach structure in which is comprised a jointed rectangular base frame, an upright cross frame secured to and rising from said base frame, upright end frame bars jointed to said base frame at the front corners thereof, oblique frame members swingably connecting the upright end frame bars with the base frame, ribs mounted on said base frame near the front thereof and diverging rearwardly and upwardly and thence forwardly, covering material connecting said ribs to provide a sunshade, covering material along the front of the base frame and extending between the oblique frame bars, and seat sections swingably mounted upon said cross frame and having locking connections with said upright end frame members.

9. A unitary beach structure in which is comprised longitudinal frame bars, an upright cross frame connecting said frame bars, end frame members jointed to said frame bars, and providing therewith a rectangular base frame, jointed upright end frame bars pivotally connected to said end frame members at the front corners thereof, triangular shaped braces pivotally connecting said longitudinal frame bars with the jointed upright end frame bars, and seat sections swingably connected with said cross frame and having locking connections with said upright end frame bars.

10. In a unitary beach structure, a base frame, a supporting plate supported thereby, a plurality of bowed ribs forming the framework of a sunshade, and posts mounted on said supporting plate, in which said ribs are adjustably supported.

11. A unitary bench structure in which is comprised a jointed base frame comprising pivoted together middle and end frame members, a cross frame secured to and rising from the middle frame members, an upright frame bar jointed to an end frame member at the front corner thereof, a bracket at the top of said upright frame bar, an oblique frame bar jointed to the middle base frame member and connected to said bracket and a seat section pivotally connected to the cross frame and adapted to rest upon said bracket.

12. A unitary bench structure in which is comprised a jointed base frame comprising pivoted together middle and end frame members, a cross frame secured to and rising from said middle frame members, an upright frame bar jointed to an end frame member at the front corner thereof, a bracket jointed to the upright frame bar at the top thereof, an oblique frame bar jointed to one of the middle frame members, and rigidly connected with the bracket, and a seat section pivotally connected to the cross frame and adapted to rest upon said bracket.

13. A unitary bench structure in which is comprised a jointed base frame comprising pivoted together middle and end frame members, a cross frame secured to and rising from the middle frame members, an upright frame bar jointed to an end frame member at the front corner thereof, a bracket at the top of said upright frame bar, an oblique frame bar jointed to the middle frame member and connected to said bracket and a seat section pivotally connected to the cross frame and adapted to rest upon said bracket, said seat section having a latch arranged for locking connections with the bracket.

14. A unitary bench structure in which is comprised a jointed rectangular base frame comprising pivoted together middle and end frame members, an upright cross frame connecting the middle frame members, seat supporting upright frame bars jointed to the end frame members at the front corners thereof, seats pivotally mounted on the cross frame with their free ends

arranged to be connected to and supported by the upright frame bars, and diagonal brace bars extending from the tops of the upright frame bars to the rear corners of the end frame members and jointed thereto.

15. A unitary beach structure in which is comprised a jointed base frame comprising pivoted together middle and end frame members, an upright cross frame secured to and rising from the middle frame member, upright end frame bars, one jointed to each end frame member at the front corner thereof, oblique brace bars, pivotally connected to the middle frame member, one extending to the upper end of each upright end frame bar and being connected thereto, and seat sections pivotally mounted on said cross frame, said upright end frame bars forming supports for the free ends of the seats.

16. A unitary beach structure in which is comprised middle base frame members having an upright cross frame secured thereto, end frame members pivotally connected to said middle frame members and forming therewith a rectangular foldable base frame, upright end frame bars pivotally connected to the end frame members, oblique brace bars pivotally connected to the middle frame members and to the upper ends of the upright end frame bars, said end frame members and therewith the upright end frame bars and oblique brace rods capable of being folded up toward the cross frame, and seats pivotally mounted on the cross frame and adapted to rest upon said upright end frame bars.

17. A unitary beach structure in which is comprised middle base frame members having an upright cross frame secured thereto, end frame members pivotally connected to said middle frame members and forming therewith a rectangular foldable base frame, upright end frame bars jointed to the end frame members, oblique brace rods pivotally connected to the middle frame members and to the upper ends of the upright end frame bars, said end frame members and therewith the upright end frame bars and oblique brace rods capable of being folded up toward the cross frame seat sections, and means whereby to lock the seat sections to said upright end frame bars.

18. A unitary beach structure comprising a foldable rectangular base frame, having an upright cross frame secured thereto midway between its ends, seat sections disposed on opposite sides of the upright cross frame and pivotally mounted thereon, said seat sections having straight front edges and curved rear edges that meet the front edges, upright end frame bars connected to the ends of the base frame and forming supports for the seat sections, bowed ribs secured to the front member of the base frame and extending upward behind the curved rear edge of the seat, swingable oblique bars pivotally secured to the base frame and extending obliquely past the upper ends of the upright end bars to provide other ribs and fabric covering secured to and connecting said ribs and forming a sunshade, and said swingable oblique bars serving to distend said sunshade.

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