Sept. 26, 1961 H. E. TOWNE 3,001,212

BOAT TOPS

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Fig-1

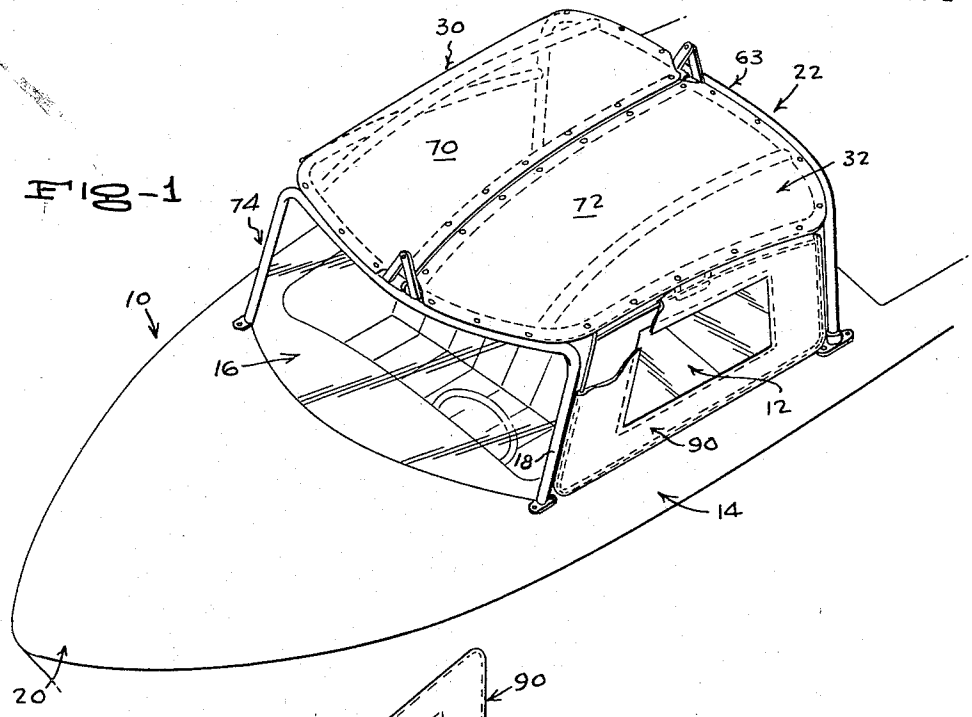
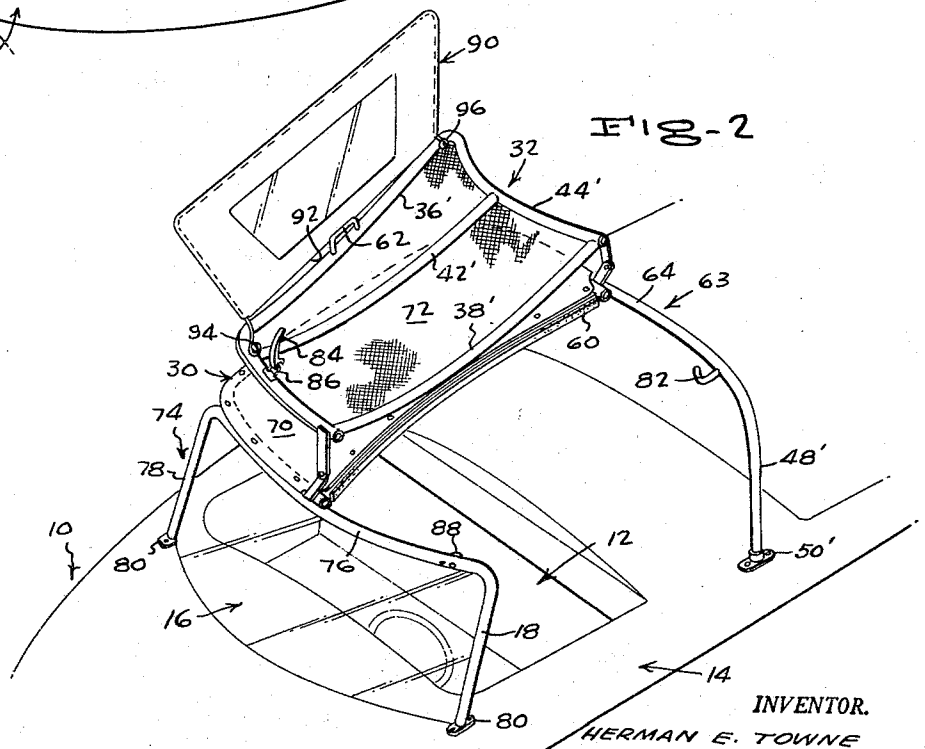


Fig-2



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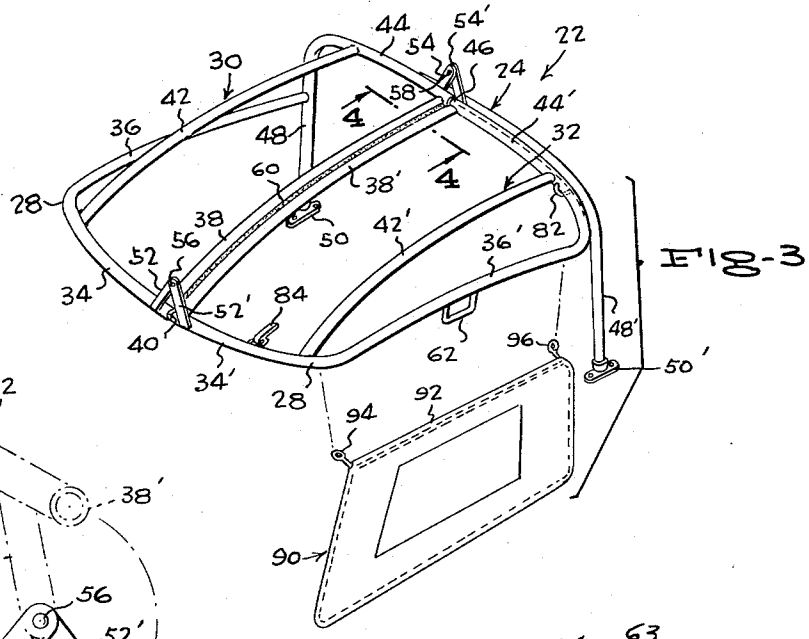


FIG-3

FIG-4

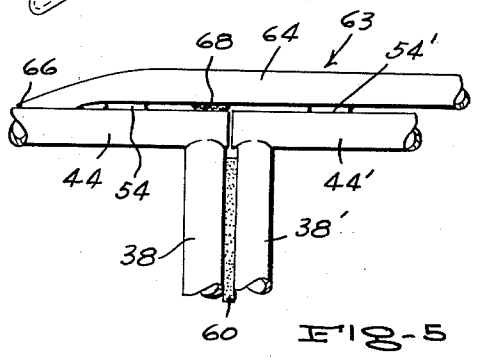
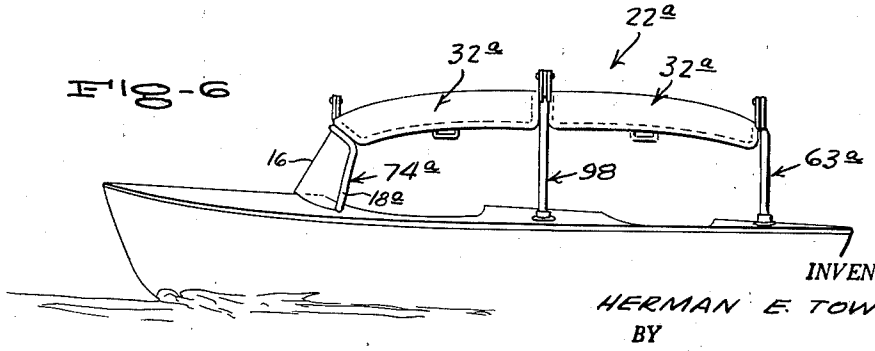


FIG-5

FIG-6



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BOAT TOPS

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4 Claims. (Cl. 9—1)

This invention relates to improved boat tops or canopies, for such as open-cockpit motor boats.

The primary object of the invention is to provide boat tops of this kind which have hinged side sections which are foldable upwardly and across a boat, so as to provide easy access from related sides of the boat, and which have open supporting frames which enable easy passage back and forth between stern and bow of the boat, through rather than around or over the top, the latter feature being especially desirable where a boat is used on a lake or river and landing is usually done with the prow to the shore.

Another object of the invention is to provide tops of the character indicated above which are strong and serviceable and easily installed, and which are of uncomplex construction, being composed of a small number of simple and easily assembled parts.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

FIGURE 1 is a fragmentary perspective view showing a top of the invention installed on an open-cockpit motor boat, a part of the top being broken away;

FIGURE 2 is a view similar to FIGURE 1, showing a section folded to open position;

FIGURE 3 is an exploded perspective view of said top, with the covering removed from the frame, and a side curtain separated from the frame;

FIGURE 4 is an enlarged fragmentary vertical transverse section taken on the line 4—4 of FIGURE 3, showing parts of the frame in normal position in solid lines and in folded position in phantom lines;

FIGURE 5 is a similarly enlarged fragmentary bottom plan view taken on the line 5—5 of FIGURE 4; and

FIGURE 6 is a side elevation of a duplex or double top for a two seat boat, in accordance with the present invention.

Referring in detail to the drawings, wherein like numerals designate like and related parts throughout the several views, and first to FIGURES 1 to 5, the numeral 10 designates an open-cockpit motor boat having a single driver's seat 12, surrounded by decking 14, with a windshield 16 having a frame 18 mounted forwardly of the seat 12 and facing the prow 20 of the boat. Shown supportably mounted on the decking 14 and on the windshield frame 18 is a single top or canopy of the invention, generally designated 22. In the event that a windshield is not present or the profile of an existing windshield is lower than that of the top 22, the frame 18 is to be considered as a component of the top 22.

The generally rectangular horizontal open top 22 comprises a top frame 24 which preferably has rounded corners 28. The frame member 24 comprises a fixed half or section 30 and a foldable half or section 32.

The fixed section 30 comprises a forwardly bowed forward transverse bar 34, an outer or laterally outward horizontal side bar 36 which extends rearwardly from the outer end of the bar 34, an inner or laterally inward horizontal side bar 38 which extends rearwardly from the bar 34 at the inward end 40 thereof, and an upwardly bowed intermediate bar 42 which is spaced from the inner side bar 38 and located near to the outer side bar 36.

At its rear end the inner side bar 38 is fixed to a transverse horizontal rear bar 44, at the inner end thereof, and the rear end of the intermediate bar 42 is fixed to the rear bar 44, parallel to the inner side bar 38. The rear bar 44 has fixed on its laterally outward end a depending vertical leg or standard 48 having a flanged foot 50 on its lower end to be suitably secured upon the decking 14, at the related side of and rearwardly of the seat 12. The rear end of the outer side bar 36 is fixed to the leg 48 at a level below the bar 44. Fixed to the forward and rear bars 34 and 44, at the inward ends thereof, upstanding, laterally inwardly angled hinge brackets 52 and 54, respectively, having hinge pins 56 and 58 at their upper ends.

The foldable top frame member half or section 32 is generally similar to the fixed section 30, except that the outer side bar 36′ terminates or merges at its rear end in the laterally outward end of a rear bar 44′. The forward bar 34′ and the rear bar 44′ have upstanding, laterally inwardly angled fixed hinge brackets 52′ and 54′ thereon, which are pivoted at their upper ends on the hange pins 56 and 58, with the axes of the hinge pins disposed between the inner side bars 38 and 38′, as shown in FIGURE 4. A compressible weather-sealing gasket 60 is suitably fixed to the stationary section inner side bar 38 so as to provide a seal between the inner side bar 38 and the inner side bar 38′ of the foldable section 32, when the latter is in normal depressed position, as also shown in FIGURE 4. Fixed to and depending from an intermediate part of the outer side bar 36 is a handle 62 to facilitate folding and unfolding of the movable section 32.

The top frame 24 further comprises a rear support 63 which comprises a transverse horizontal back bar 64 which is suitably fixed, as by welding 66, and 68, as indicated in FIGURE 5, to the rear side of the fixed section rear bar 44, near the inward end thereof, and has a depending vertical leg or standard 48′ on its outer end, provided with a flanged foot 50′ to be fixed to the boat decking 14, in opposed relation to the foot 50. As also seen in FIGURE 5, the rear hinge brackets 54 and 54′ are fixed to the rear sides of the section rear bars, so that the back bar 64 is spaced rearwardly from and is out of restraining contact with the rear bar 44′ of the foldable section 32. The frame member sections 30 and 32 have secured thereon covers 70 and 72, respectively, of suitable material, such as duck or nylon.

In the absence of a windshield on the boat 10 or in the event of a windshield having a frame too low in profile to support the forward ends of the sections 30, 32, a front support 74 of the necessary height is provided which has a forwardly bowed horizontal transverse front bar 76 having on its ends depending vertical legs or standards 78 having decking secured flange feet 80 on their lower ends. In the event that an existing windshield has a frame of sufficient height, the same is considered herein to be the support 74.

The forward bar 34 of the fixed section 30 bears supportably upon, and if desired, is suitably fixed to the related half of the front bar 76, while the forward bar 34' of the foldable section 32 rests freely on its half of the front bar 76. For releasably securing the foldable section 32 in depressed or closed position, with its rear bar 44' resting upon a forwardly projecting hook 82 on the back bar 64, the forward bar 34' of the foldable section has suitable friction latch means thereon for engaging the front bar 76. Such latch means can take the form of a cam lever 84 provided on a bracket 86 fixed on the underside of the forward bar 34', so as to be accessible from within and beneath the top 22, which is engageable with a detent 88 fixed on the rear side of the front bar 76.

A fixed side curtain (not shown) can be installed on the outward side of the frame member section 30, but the foldable section 32 has a movable side curtain 90, which is unsecured to the boat 10, and which is carried by the foldable section 32 to move therewith. The movable curtain 90 is preferably mounted, at the ends of its upper edge 92, by suitable means, as indicated at 94 and 96, to the forward bar 34' and the outer side bar 36', respectively.

As shown in FIGURE 2, by release of the latch lever 84 from the detent 88, the foldable section 32 can be folded upwardly and laterally inwardly, until it rests upon the fixed section 30, whereat the entire related half of the top 22 is open, so as to enable free and easy entrance to or exit from the seat 12, from the side of the boat 10. At the same time, free passage is provided, through the rear support 63, or thereover, and through or over the front support 74, to the bow of the boat.

The duplex or double form of top or canopy of the invention, shown in FIGURE 6, and generally designated 22*a*, is for a boat having dual seats or cockpits, and involves front and rear supports 74*a* and 63*a*, and an intermediate support 98, similar to but preferably taller than the rear support 63*a*, two fixed top frame member sections, and two foldable sections 32*a*, which are disposed between related ones of the supports, in the manner described hereinabove, and have the same structural forms.

While there have been shown and described herein preferred forms of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structures of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. In combination, an open-cockpit boat having decking including a forward portion and side portions extending rearwardly from said forward portion, a top comprising a forward upstanding support fixed on said forward portion and a rear upstanding support secured upon side portions of the decking, said supports severally having transverse bars spaced above the decking, a horizontal top frame extending between said transverse bars, said top frame being longitudinally divided and defining a covered fixed section fixed to the transverse bars and a covered foldable section, said sections severally having forward and rear transverse bars and outer and inner side bars extending between and fixed at their ends to the ends of the transverse bars of the sections, the forward transverse bar of the fixed section being supportably secured to the transverse bar of the forward support, the forward and rear transverse bars of the foldable section being unsecured to the transverse bars of the forward and rear supports, means hinging the foldable section on the fixed section to be folded upwardly and crosswise of the boat relative to the fixed section from a depressed normal closed position, said hinge means comprising pivotally connected upstanding hinge brackets on the forward transverse bars of the sections, the transverse bar of the rear support having a forwardly projecting element thereon upon which the rear transverse bar of the foldable section rests in the depressed position thereof, and releasable latch means acting between the forward transverse bar of the foldable section and the transverse bar of the forward support for latching the foldable section in its depressed position.

2. In combination an open-cockpit boat having decking including a forward portion and side portions extending rearwardly from said forward portion, a top comprising a forward upstanding support fixed on said forward portion and a rear upstanding support secured upon side portions of the decking, said supports severally having transverse bars spaced above the decking, a horizontal top frame extending between said transverse bars, said top frame being longitudinally divided and defining a covered fixed section fixed to the transverse bars and a covered foldable section, said sections severally having forward and rear transverse bars and outer and inner side bars extending between and fixed at their ends to the ends of the transverse bars of the sections, the forward transverse bar of the fixed section being supportably secured to the transverse bar of the forward support, the forward and rear transverse bars of the foldable section being unsecured to the transverse bars of the forward and rear supports, means hinging the foldable section on the fixed section to be folded upwardly and crosswise of the boat relative to the fixed section from a depressed normal closed position, said hinge means comprising pivotally connected upstanding hinge brackets on the forward transverse bars of the section, the transverse bar of the rear support having a forwardly projecting element thereon upon which the rear transverse bar of the foldable section rests in the depressed position thereof, and releasable latch means acting between the forward transverse bar of the foldable section and the transverse bar of the forward support for latching the foldable section in its depressed position, said latch means comprising a detent on the rear side of the transverse bar of the forward support, and a cam lever pivoted on the forward transverse bar of the foldable section, engageable with the detent.

3. In combination, an open-cockpit boat having a forward deck and side portions extending rearwardly from said forward deck, a windshield frame fixed to and upstanding from said forward deck, an inverted U-shaped rear support fixed to and upstanding from said side portions behind the cockpit, said rear support and said windshield frame having horizontal transverse support bars, a top comprising a fixed frame extending longitudinally between and fixed to said transverse bars and a movable frame extending longitudinally between said transverse bars at one side of said fixed frame, said fixed frame and said movable frame having forward and rear transverse bars positioned along said transverse support bars, fixed upstanding hinge brackets on said front and rear transverse bars at their inner ends, said brackets having overlapped upper ends, pivots secured through the overlapped upper ends of the brackets, a rest fixed on the support bar of the rear support upon which the rear transverse bar of the movable section is adapted to rest in a closed position of the movable top section, and latch means on the front transverse bar of the movable section engageable with the support bar of the windshield frame.

4. In combination, an open-cockpit boat having a forward deck positioned forwardly of the cockpit, a rear deck behind the cockpit, and side portions extending along the sides of the cockpit, a front upstanding support fixed on said forward deck, a rear upstanding support fixed on said rear deck, and an intermediate upstanding support fixed on said side portions and spaced from the front and rear supports, said supports having transverse horizontal bars spaced above the decks, a top comprising sections extending between the front and rear supports and the intermediate support, each of said sections comprising a fixed frame fixed at related ends to the transverse bar of the intermediate section and the trans-

verse bars of the front and rear supports, and a movable frame positioned alongside of the fixed frame and extending between the intermediate support and the front and rear supports, said movable and fixed frames having forward and rear transverse bars, upstanding and overlapped hinge brackets on the forward and rear transverse bars of the movable frames, hinge pins secured through the overlapped brackets, and rests on the transverse bars of supports upon which the movable frames are adapted to rest in their closed positions.

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