May 22, 1962 W. E. PEARSON 3,035,281

BOAT TOP

Filed Sept. 16, 1960 2 Sheets-Sheet 1

Fig-1

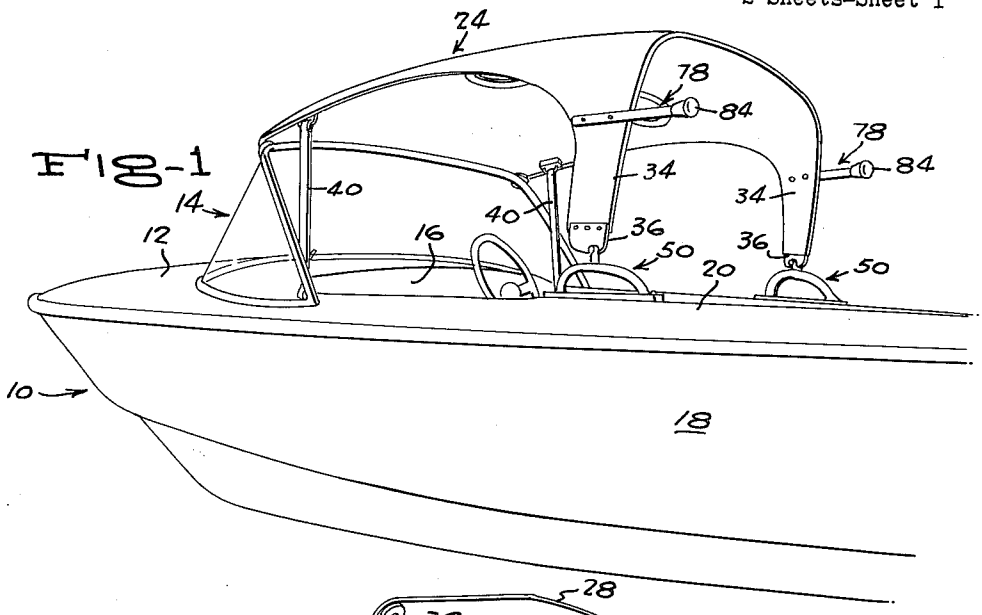
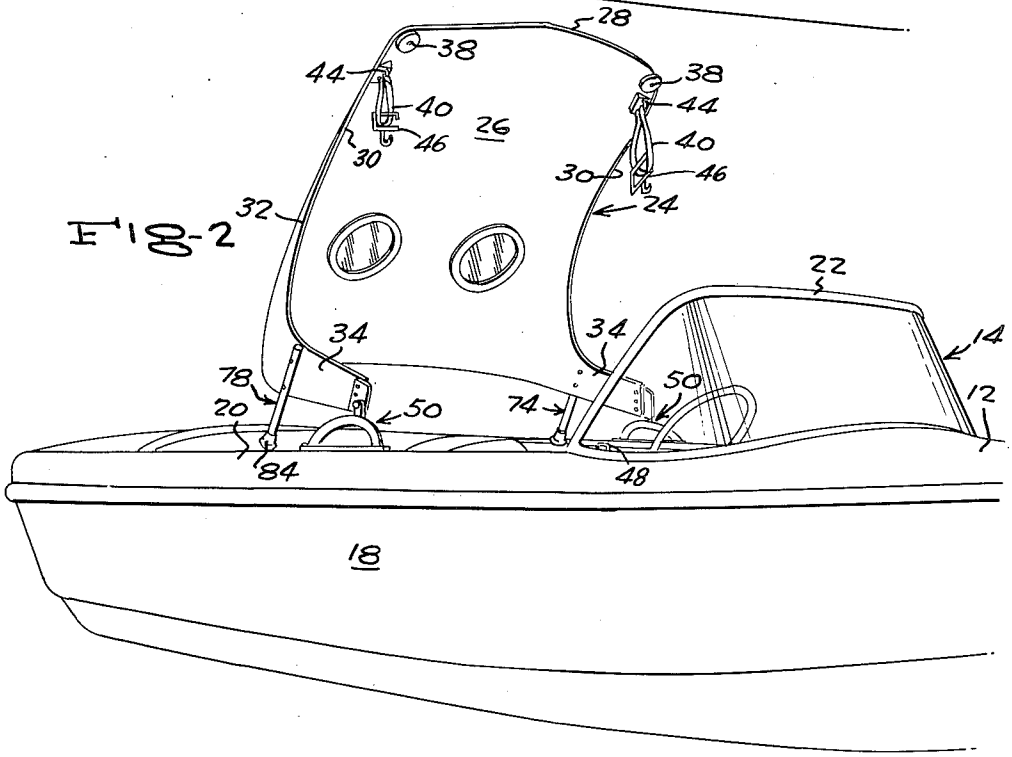


Fig-2



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FIG-4

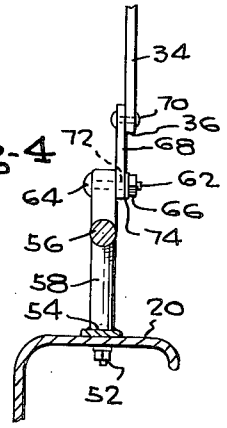
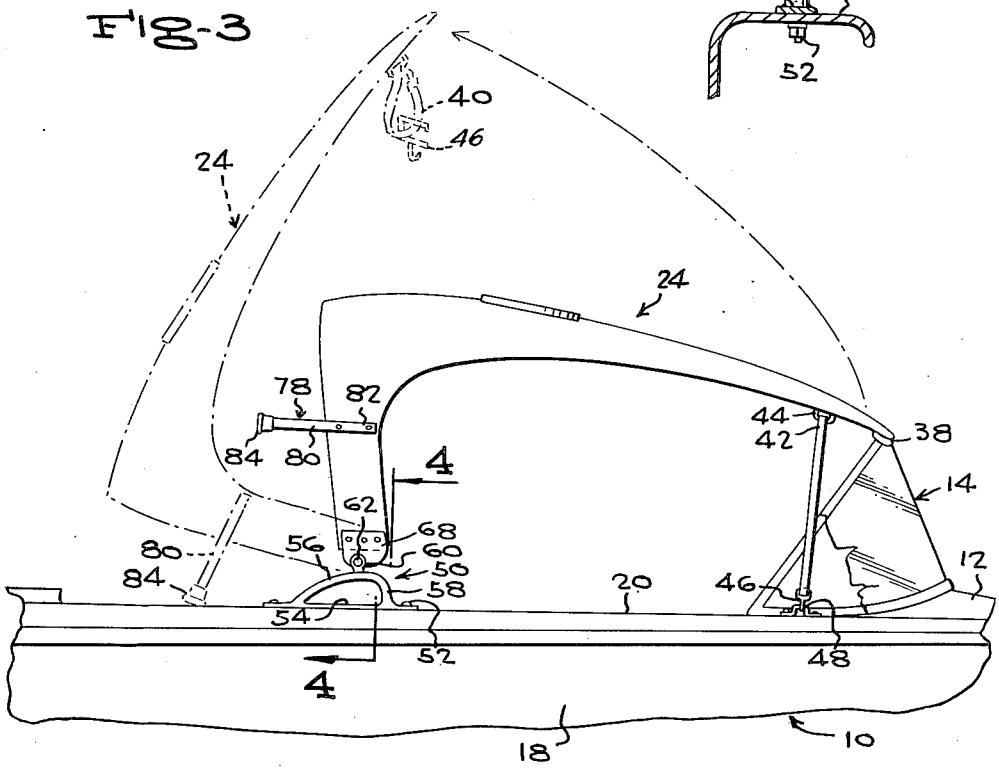


FIG-3



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BOAT TOP

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7 Claims. (Cl. 9—1)

This invention relates to a novel tilt-up top for boats.

The primary object of the invention is the provision of a tilt-up boat top which is adapted to be hinged or mounted on the sides of a boat, at a location spaced behind an existing windshield, the top having improved means for securing the same in engagement with the windshield, in the closed position of the top, improved hinge means which spaces the hinge axis of the top above the point of mounting of the hinge means on the boat, and prop means extending rearwardly from the top to engage the boat, behind the top, for supporting the top in its tilted-up open position.

Another object of the invention is to provide prop means for a top of the character indicated above, which props the top in a rearwardly overbalanced and secure manner, so that the top does not require to be manually or otherwise held in its tilted open position, and so that the top, in its tilted position, does not rest upon and encumber the boat behind the hinge means.

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 side perspective view showing a boat equipped with a top of the present invention, showing the top in closed position;

FIGURE 2 is a fragmentary perspective of the other side of the boat showing the top in tilted open position;

FIGURE 3 is a fragmentary side elevation showing the top in closed position in full lines and propped in open position in phantom lines; and,

FIGURE 4 is an enlarged fragmentary vertical transverse section taken on the line 4—4 of FIGURE 3.

Referring in detail to the drawings, wherein like numerals designate like parts throughout the several views, the numeral 10 generally designates a motor boat hull having a foredeck 12 behind which is an upstanding windshield 14 which extends across the front of a cockpit 16. The hull 10 has sides 18 having gunwales 20 above their upper edges. The windshield 14 has a transversely extending substantially straight horizontal top frame member 22.

A preferable rigid top 24 normally extends over the cockpit 16 and bears upon the top windshield frame member 22, as shown in FIGURES 1 and 3. The top 24 has a horizontal main portion 26 having a forward edge 28, and side edges 30. Extending downwardly from and rearwardly along the side edges 30, forward edges 28 are rearwardly flaring top sides 32. At their rear and wider ends the sides 32 merge into the upper ends of uprights 34 which extend downwardly below the sides 32, and terminate in lower ends 36. As shown, the uprights 34 may have a slight forward angulation relative to the main top portion 26. Fixed to the underside of the main top portion 26, at the forward edge 28, at the side edges

30, are resilient bumpers 38 which are compressed under tension when engaged with the top frame member 22 of the windshield 14.

The top 24 is securely and forcibly tensioned upon the windshield member 22, and held securely in its closed position, by means of stretchable resilient straps 40, of such as rubber shock cord, which are secured, at their upper ends, as indicated at 42, to loops 44 fixed to the top sides 32 near the forward edge 28 of the top, and have hooks 46 on their lower ends, which are removably engaged with straps under tension through loops 48 fixed upon the gunwales 20 in vertical alignment with the loops 44, as shown in FIGURE 3.

Hinge mounts 50 are suitably secured, as indicated at 52, upon the gunwales 20 in vertical alignment with the lower ends 36 of the uprights 34. The hinge mounts 50 comprise horizontally elongated plates 54 which bear upon the tops of the gunwales 20, and forwardly inclined bars 56 which have their rear ends connected directly to the plates 54, at the rear ends thereof. The bars 56 are spaced upwardly from the plates 54 by means of downturned end portions 58 which are connected at their lower ends to the plates at the forward ends of the plates, whereby a modern streamlined effect is obtained.

Upstanding on intermediate portions of the bars 56 are hinge eyes 60 through which extend pivot bolts 62 which have heads 64 at the outboard sides of the eyes 60 and have nuts 66 on their inboard ends. Bracket plates 68 are fixed, as indicated at 70, to the outboard sides of the uprights 34 and extend below the lower ends 36 thereof, and have, below the uprights, holes 72 through which the pivot bolts 62 extend. Washers 74 on the bolts 62 are engaged with the inboard sides of the bracket plates 68 by the nuts 66. This arrangement spaces the lower ends 36 of the uprights 34 a substantial distance above the tops of the gunwales 20, so that the top 24 can be tilted rearwardly to a greater than usual degree, to a rearwardly overbalanced position, as shown in phantom lines in FIGURE 3, to an extent that the weight of the top holds the top 24 in its open position, and manual or other retention of the top in its open position, is not required and is done away with.

For holding the top 24, in its open position, with the uprights 34 spaced above and out of contact with the gunwales 20, and any other part of the boat hull between the sides 18 at this location, props 78 are provided. The props 78 preferably comprise straight rods or tubes 80 having forward portions fixed, as indicated at 82, to the outboard sides of the top uprights 34, at determined spaced points above the axes of the hinge mounts 50. The rods 80 extend rearwardly beyond the uprights 34 and have protective caps 84 on their rear ends. The rods 80 are disposed at angles relative to the uprights, such that the rods 80 are substantially parallel to the gunwales 20, in the closed position of the top 24, and extend at acute rearward angles, relative to the perpendicular, in the open position of the top, with their caps 84 bearing upon the tops of the gunwales 20. The caps 84 are preferably of resilient and compressible material, so as to serve as bumpers for absorbing the shock of a careless or sudden opening of the top 24. In the event that wind is blowing forwardly against the top 24 while in open position, the top will remain rearwardly overbalanced and remain in its open position against all but heavy gusts of wind.

Although 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 structure 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, a boat hull having sides, gunwales on the upper edges of said sides, a windshield extending between and rising above the sides, said windshield having a top frame member, a rigid top having a normally horizontal main portion having a forward edge and side edges, said main portion being engaged upon said top frame member in the closed position of the top, said top having pendant uprights at its side edges at the rear end of said main portion, said uprights having lower ends, and hinge mounts fixed upon the gunwales beneath the lower ends of the uprights having pivot means connected to the uprights, and resilient means stretched between the top at its side edges in the region of the windshield, and the gunwales near the windshield, the axes of said pivot means being spaced at a substantial height above the gunwales whereby upon release of said resilient means the top can be tilted to a rearwardly and downwardly overbalanced open position behind said pivot means.

2. In combination, a boat hull having sides, gunwales on the upper edges of said sides, a windshield extending between and rising above the sides, said windshield having a top frame member, a rigid top having a normally horizontal main portion having a forward edge and side edges, said main portion being engaged upon said top frame member in the closed position of the top, said top having pendant uprights at its side edges at the rear end of said main portion, said uprights having lower ends, and hinge mounts fixed upon the gunwales beneath the lower ends of the uprights having pivot means connected to the uprights, and resilient means stretched between the top at its side edges in the region of the windshield, and the gunwales near the windshield, the axes of said pivot means being spaced at a substantial height above the gunwales whereby upon release of said resilient means the top can be tilted to a rearwardly and downwardly overbalanced open position behind said pivot means, and prop means on and reaching rearwardly beyond the top for supporting engagement with portions of the gunwales behind the hinge mounts in the open position of the top.

3. In combination, a boat hull having sides, gunwales on the upper edges of said sides, a windshield extending between and rising above the sides, said windshield having a top frame member, a rigid top having a normally horizontal main portion having a forward edge and side edges, said main portion being engaged upon said top frame member in the closed position of the top, said top having pendant uprights at its side edges at the rear end of said main portion, said uprights having lower ends, and hinge mounted fixed upon the gunwales beneath the lower ends of the uprights having pivot means connected to the uprights, and resilient means stretched between the top at its side edges in the region of the windshield, and the gunwales near the windshield, the axes of said pivot means being spaced at a substantial height above the gunwales whereby upon release of said resilient means the top can be tilted to a rearwardly and downwardly overbalanced open position behind said pivot means, said hinge mounts comprising elements spaced above the gunwales, upstanding hinge eyes on said elements, pivots extending through said eyes, said uprights having hinge brackets thereon and reaching below their lower ends through which the pivots securably extend.

4. In combination, a boat hull having sides, gunwales on the upper edges of said sides, a windshield extending between and rising above the sides, said windshield having a top frame member, a rigid top having a normally horizontal main portion having a forward edge and side edges, said main portion being engaged upon said top frame member in the closed position of the top, said top having pendant uprights at its side edges at the rear end of said main portion, said uprights having lower ends, and hinge mounts fixed upon the gunwales beneath the lower ends of the uprights having pivot means connected to the uprights, and resilient means stretched between the top at its sides edges in the region of the windshield, and the gunwales near the windshield, the axes of said pivot means being spaced at a substantial height above the gunwales whereby upon release of said resilient means the top can be tilted to a rearwardly and downwardly overbalanced open position behind said pivot means, said resilient means comprising resilient and stretchable straps having upper and lower ends, the upper ends of the straps being secured to the main portion of the top at the side edges thereof and adjacent to said forward edge, loops fixed on the gunwales and members secured on the lower ends of the straps and releasably engaged with said loops.

5. In combination, a boat hull having sides, gunwales on the upper edges of said sides, a windshield extending between and rising above the sides, said windshield having a top frame member, a rigid top having a normally horizontal main portion having a forward edge, and side edges, said main portion being engaged upon said top frame member in the closed position of the top, said top having pendant uprights at its side edges at the rear end of said main portion, said uprights having lower ends, and hinge mounts fixed upon the gunwales beneath the lower ends of the uprights having pivot means connected to the uprights, and resilient means stretched between the top at its side edges in the region of the windshield, and the gunwales near the windshield, the axes of said pivot means being spaced at a substantial height above the gunwales whereby upon release of said resilient means the top can be tilted to a rearwardly and downwardly overbalanced open position behind said pivot means, and prop means on and reaching rearwardly beyond the top for supporting engagement with portions of the gunwales behind the hinge mounts in the open position of the top, said prop means comprising rods fixed to the uprights and extending rearwardly therefrom, said rods having rear ends for engaging the tops of the gunwales behind the hinge mounts.

6. The combination with a vehicle having longitudinal side members, a windshield extending across the vehicle between the side members and rising above the side members, upstanding members on and rising above said side members at a location spaced rearwardly from the windshield, a rigid top having a normally horizontal portion having a forward end resting upon the top of the windshield, and pendant side portions at the rear end of the horizontal portion, said pendant side portions being pivoted at their lower ends on said upstanding members on a level spaced above the tops of the vehicle side members, the top being adapted to be swung upwardly and rearwardly from a closed position wherein the horizontal portion of the top rests upon the top of the windshield to an open position wherein the top is in an over-center vertical position behind the pivotal axis of the top, and resilient means stretched between the top at its side edges in the region of the windshield and the gunwales near the windshield.

7. The combination with a vehicle having longitudinal side members, a windshield extending across the vehicle between the side members and rising above the side members, upstanding members on and rising above said side members at a location spaced rearwardly from the windshield, a rigid top having a normally horizontal portion having a forward end resting upon the top of the windshield, and pendant side portions at the rear ends of the horizontal portion, said pendant side portions being pivoted at their lower ends on said upstanding members on a level spaced above the tops of the vehicle side mem-

bers, the top being adapted to be swung upwardly and rearwardly from a closed position wherein the horizontal portion of the top rests upon the top of the windshield to an open position wherein the top is in an over-center vertical position behind the pivotal axis of the top, and rearwardly extending props on said pendant side members which are spaced above the tops of the vehicle side members in the closed position of the top, said props having rear ends adapted to bear supportably upon the tops of the vehicle side members in the open over-center position of the top.

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