March 19, 1929. W. S. SMITH 1,705,592

BOAT TOP

Filed June 20, 1927 3 Sheets-Sheet 1

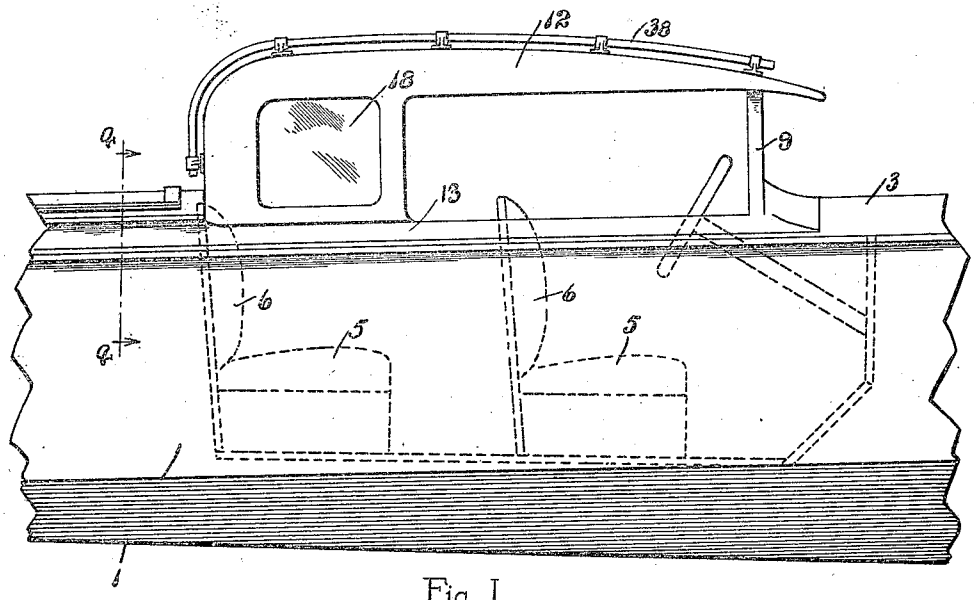


Fig. 1.

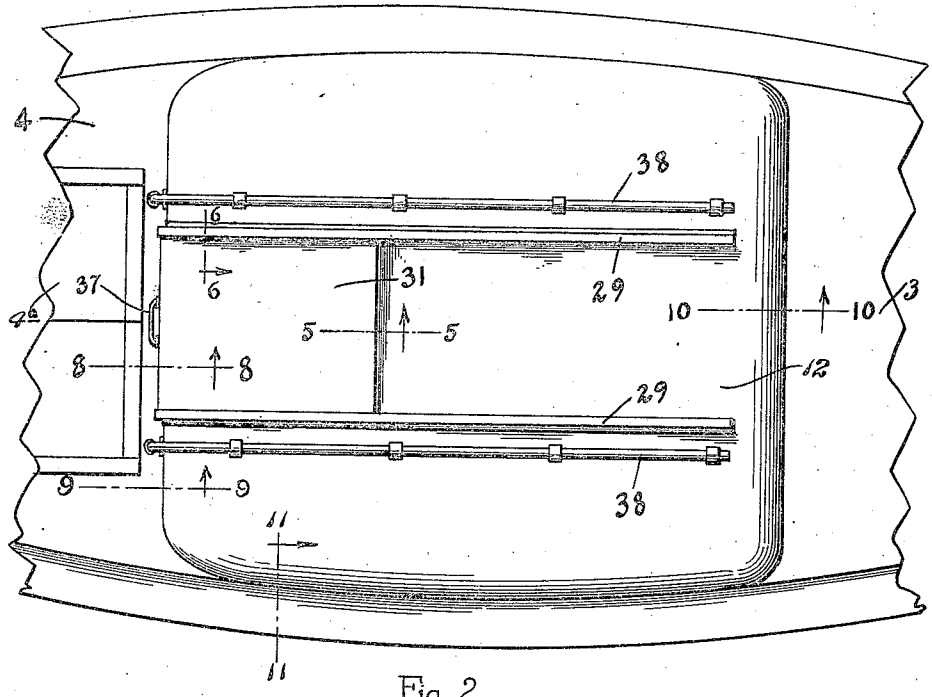


Fig. 2.

Inventor
Walter S. Smith
By Frank E. Livesay
Attorney

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BOAT TOP

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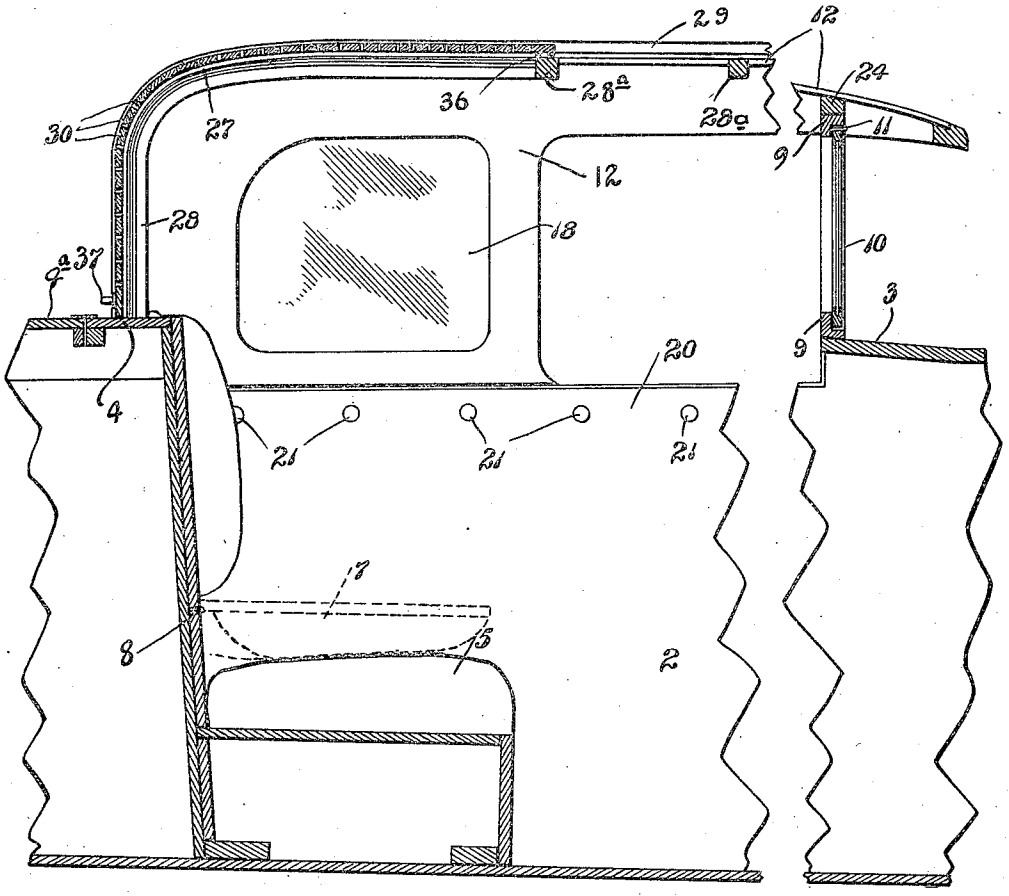


Fig. 3.

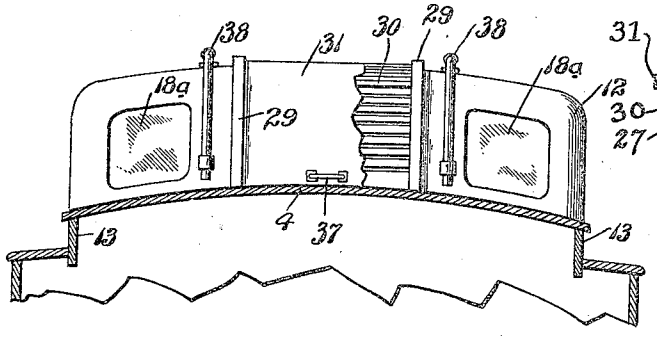


Fig. 4.

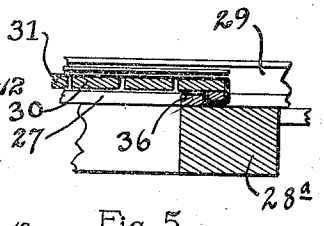


Fig. 5.

Inventor
Walter S. Smith
By Frank E. Liveance, Jr
Attorney

March 19, 1929. W. S. SMITH 1,705,592

BOAT TOP

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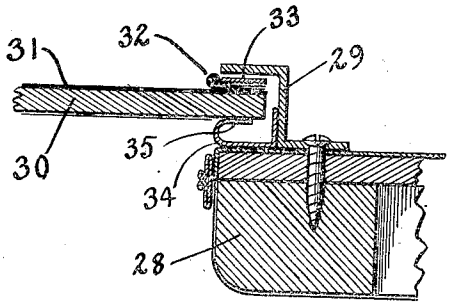


Fig. 6.

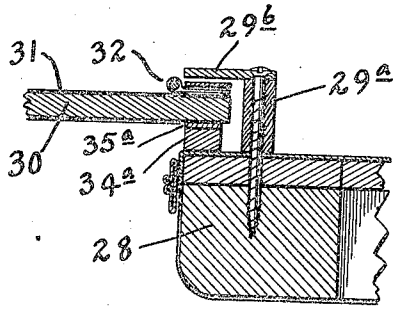


Fig. 7.

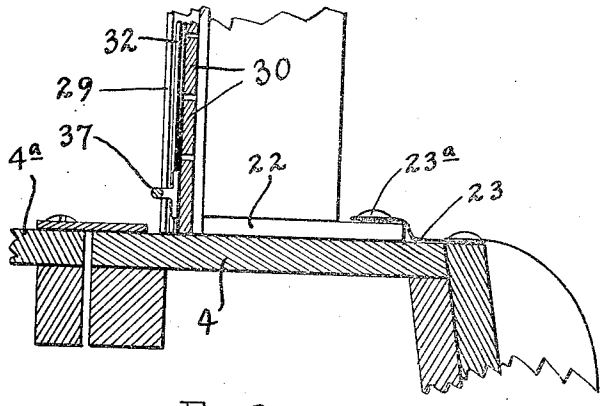


Fig. 8.

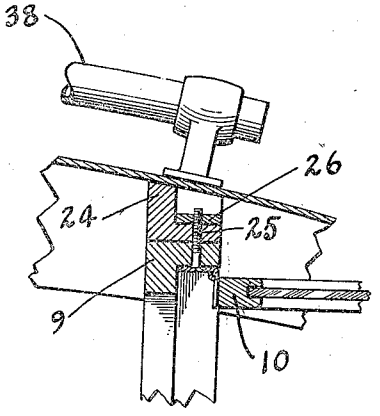


Fig. 10.

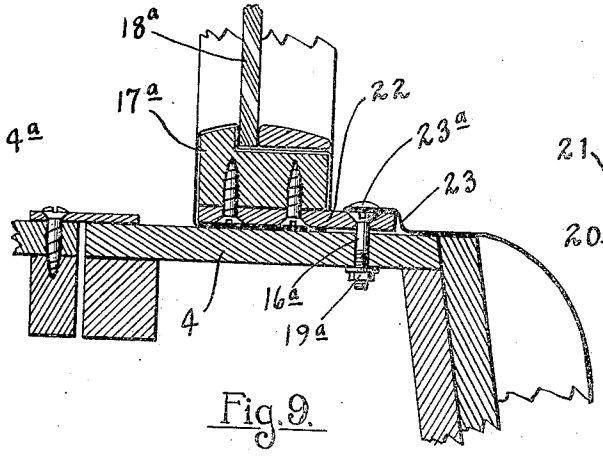


Fig. 9.

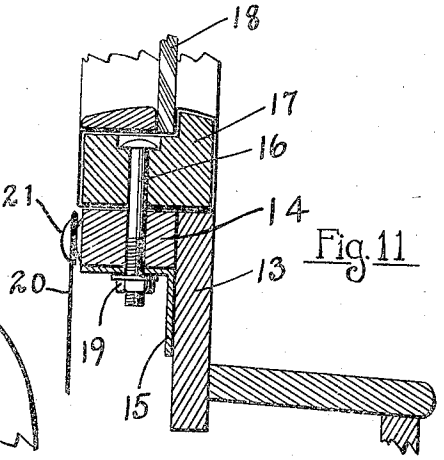


Fig. 11

Inventor
Walter S. Smith
By Frank C. Livrance, Jr.
Attorney

Patented Mar. 19, 1929. 1,705,592

UNITED STATES PATENT OFFICE.

WALTER S. SMITH, OF DETROIT, MICHIGAN, ASSIGNOR TO GAR WOOD INC., OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

BOAT TOP.

Application filed June 20, 1927. Serial No. 199,879.

This invention relates to a top adapted to be applied to motor boats. It is an object and purpose of the present invention to provide a top which may be quickly and readily attached to a motor boat and, which may be as easily detached when desired, and to construct the boat and top in such manner that quick and easy entrance into the cockpit of the boat may be had, an opening with a suitable flexible closure therefor being made at the rear and upper sides of the top through which entrance into the cockpit is made. Further objects of the invention are to provide the top with many improvements in the manner of detachably attaching the same to the boat, in safeguarding against entrance of water or spray and to generally provide a completely practical and serviceable top with a flexible sliding door entrance which permits of a stream line contour together with a maximum seating capacity within the cockpit.

For an understanding of the invention reference may be had to the following description taken in connection with the accompaying drawings, in which,

Fig. 1 is a fragmentary enlarged side elevation illustrating the top as it looks applied to a motor boat.

Fig. 2 is a plan view of the construction shown in Fig. 1.

Fig. 3 is a fragmentary enlarged central longitudinal vertical section through the motor boat illustrating the top and the entrance opening with the flexible closure therefor at the rear.

Fig. 4 is a fragmentary transverse vertical section substantially on the line 4—4 of Fig. 1, looking forward as indicated by the arrows, and

Figs. 5, 6, 7, 8, 9, 10, and 11 are fragmentary enlarged vertical sections through portions of the top structure substantially on the planes of lines 5—5, 6—6, 7—7, 8—8, 9—9, 10—10 and 11—11, respectively, of Fig. 2.

Like reference characters refer to like parts in the different figures of the drawings.

The motor boat may be of any desired construction having the usual hull 1 and cockpit 2, a forward deck 3 at the upper side of the boat extending in front of the cockpit and an after deck 4 back of the cockpit in which the seats for the occupants are located. The after deck 4, which in this case covers the engine compartment, is provided with hatch doors 4^a. The seats are of any conventional type as indicated at 5 having backs 6, preferably divided into sections, except that the back 7 for the middle section in the rear end of the cockpit has a hinged connection indicated at 8, (see Fig. 3) so that this back middle section may be folded to the dotted lines position shown in Fig. 3 and lie against the seat 5 with which it is associated.

At the front of the cockpit an open vertical frame 9 is rigidly secured in which a wind and spray shield 10 of glass is located. This shield 10 is hingedly mounted at its upper edge on hinges 11 attached to the upper rail of the frame 9 so that the shield 10 may be swung outwardly and upwardly to a horizontal position, as indicated in Fig. 10, for a purpose which will later appear.

The top 12 of sedan type is located over the cockpit 2 and has depending sides and back. At the inner side of the coaming 13 at each side of the cockpit a rail or beam 14 (see Fig. 11) is secured lying above an angle iron 15, the vertical leg of which is permanently secured to the inner side of the coaming 13. Bolts 16 extend downwardly through a lower rail 17 at each side of the top structure, said parts 17 also serving as the lower frame members for glass 18 which is mounted in each side of the top. The bolts 17 pass through the rails 14 and the horizontal legs of the angles 15 and receive nuts 19 whereby the depending sides of the top are permanently connected to the hull of the boat. The cockpit is lined with a suitable lining 20 and at its upper edges is equipped with suitable snap fasteners 21 to engage with complementary parts fixed to the inner sides of the rails 14. Access to the nuts 19 is had by detaching the snap fasteners as is evident.

The lower edge of the depending back portion of the top has a strip 22 permanently attached to it, this strip extending inwardly beyond the inner surface of the back and forming a ledge. When the top is in position the strip 22 lies against the after deck 4 and bolts 16^a extend through the ledge formed by the strip 22 and through the deck 4 and are provided with nuts 19^a and by means of the bolts and nuts the back portion of the top is secured to the deck. Access is had to the nuts 19^a to remove them so that the top may be detached, through the hatch doors 4^a. The permanent back sections of the back seat are covered with upholstery 23 which extends rearwardly and overlaps the ledge formed by

the strip 22 and is provided with suitable fasteners 23ª which may be detached when the top is removed. By bringing the upholstery on to the strip 22 and fastening it there the joint between the strip and the deck is covered and the appearance of the structure improved.

The front upper portion of the top is detachably connected to the upper rail 9 of the wind and spray shield. This is accomplished by means of a transverse rail 24 attached to the under side of the top so as to come directly over the upper rail of the frame 9. Screws 25 pass upwardly through the upper rail of the wind shield into the rail 24 and thread into nuts 26 seated in recesses made in the rail 24. In order to have access to the screws 25 the wind shield 10 is swung upwardly to the position shown in Fig. 10. When the shield 10 is in its vertical operative position, screws 25 are not accessible.

At the rear and upper portion of the top, centrally thereof, and between the windows 18ª an opening 27 is made for entrance into the cockpit 2. The back 7 of the middle seat directly in front of the opening 27 is folded down to the position shown in Fig. 3 whereupon entrance is readily had, the one entering stepping upon the folded back 7 and thence to the floor of the cockpit without in any manner stepping upon the upholstery of the seats. The back 7 is then turned to upper position.

The opening 27 through which entrance is had to the cockpit is closed by a flexible water and weather tight closure. At each side and at the front end of the opening 27 are frame members 28 of the top and also at various spaced apart points transversely of the top are other frame members 28ª. A guide for the closure is provided by securing the Z-bar members 29 to the top, the same extending along each side of the closure and then forward toward the front end of the top for a distance beyond the end of the opening 27.

The closure consists of a plurality of slats 30 which lie parallel to each other with their ends extending underneath the overhanging flanges of the Z-bar guides 29. A flexible connection and cover 31 of canvas or equivalent material connects all of the slats 30. A welt 32 lies adjacent each edge and at the outer side of the closure thus made, over which flexible metal strips 33 are secured, the same lying underneath the overhanging guide flanges of the guides 29 as best shown in Fig. 6.

The ends of the slats 30 ride upon inner guides 34 as shown in Fig. 6 which are bent back upon themselves into U-shape, as indicated at 35, so that they serve as drains for any water which may be shipped and which enters between the closure and the guides 29 therefor. At the front end of the opening 27 suitable weather stripping 36 may be provided to exclude water and spray as shown in Fig. 5. The closure at its lower end is equipped with a handle 37 for moving the same along the guides 29 and the top is further equipped with hand rails 38 which may be grasped by those entering the cockpit.

A modification of the guide structure shown by Fig. 6 is illustrated in Fig. 7. This structure is substantially identical with the first described structure, the difference being that the members are built up of combined wood and metal parts which do not require special dies or shapes. In this construction the member corresponding to the Z-bar comprises the wooden strip 29ª having the overhanging metal strip 29ᵇ laid on its top and held in place by the screw which attaches both parts to the top. The combined inner guide and drain is formed by a wooden strip 34ª upon which a metal track strip 35ª is located. The space between these strips and the member 29ª serves as a drain trough to carry away any water which enters the joint.

The construction has proved very practical in all respects. The attachment of the top to the hull is simple yet particularly effective and all attaching devices are completely covered and disguised yet are readily accessible when access to them is needed. Maximum space for seating purposes is provided by use of the flexible sliding door. Doors which swing outward or inward do not lend themselves to economy of space nor to the attainment of the symmetrical lines desired in a boat. But with the flexible closure which I have devised both of these results are attained to the highest degree. The rear entrance door located centrally of the boat as herein provided is always accessible regardless of the position of the boat at wharf, whereas side entrance passages require proper location of the boat to gain access to them. The folding back of the center rear seat further lends itself to the attainment of a maximum seating capacity. The weather proofing construction used in connection with the sliding door insures that water will not enter when the closure is in closed position.

Many variations in minor details of construction may be resorted to without departing from the invention defined in the appended claims. Accordingly, the invention is not to be considered as limited to the specific disclosure made but to be comprehensive of all forms of structure coming within the scope of the claims appended hereto.

I claim:

1. A top adapted to be applied to a motor boat over a cockpit therein, having depending back and sides, there being an opening in said back between the side edges thereof extending the full height of said back and also extending forward for a distance in the top, a continuous guide at each side of said opening extending along the vertical and horizontal edges thereof, and a continuous flexible

closure for said opening slidably mounted in the guides and movable to a position over the top wherein the opening is completely uncovered, or back to a position where the opening in the top and back is completely covered.

2. A top of the class described having a depending back, there being an opening extending to full height of the back and forward a distance in the top located between the sides of said top and back, Z-bar guides secured to said top and back at each side of the opening and extending forward over the top in front of said opening, and a flexible closure slidably mounted between said guides for closing the opening or for uncovering the same.

3. A construction containing the elements in combination defined in claim 2, combined with a member located inside of said guides and on which the ends of the flexible closure ride, said member being of U-shaped form with a leg resting against the top and said back and the other lying under the ends of said closure, substantially as for the purpose described.

4. In combination with a motor boat having a cockpit, and a wind shield frame located in the front of and above the cockpit, a wind shield hingedly mounted at its upper edge to the upper rail of said frame, a top detachably secured to the motor boat over the cockpit and extending over the wind shield frame, and fastening means passing through the upper rail of the wind shield frame to detachably connect it with said top, said fastening means being covered and inaccessible when the wind shield is in lower operative position.

5. In combination with a motor boat having a cockpit, a wind shield frame secured to the motor boat transversely thereof, in front of and above said cockpit, a wind shield hingedly mounted at its upper edge on the upper rail of said frame whereby the wind shield may be swung forwardly and upwardly, a top removably attached to said motor boat and extending over the wind shield frame, a bar located transversely of and at the under side of said top and secured thereto and screws passing upwardly through the upper rail of the wind shield frame to detachably connect the same to said bar, the lower ends of said screws being covered by the upper edge of the wind shield when the same is in lower operative position.

6. In combination with a motor boat having a cockpit, a top having depending back and sides located over said cockpit, fastening means for securing the top at the lower edges of its back and sides to the motor boat, a lining for the cockpit and detachable means for connecting the lining at its upper edges to the inner sides of the cockpit, said lining covering the fastening means used to secure the sides of said top to said motor boat.

7. A combination with a motor boat having a cockpit, a top over said cockpit having depending back and sides, rails at the inner sides and upper edges of said cockpit attached to the inner sides of the motor boat, a deck cross member extending transversely across the same at the back of the cockpit, bolts passing through said rails and deck member and connecting with the sides and back of the top at their lower edges for securing the same in place, said bolts having nuts at their lower ends, a lining to said cockpit at each side thereof, and snap fasteners at the upper edges of said lining and on the side rails for detachably connecting said linings to the side rails at their upper edges.

8. A top for motor boats having depending sides and back, said top having an opening extending substantially the full height of the back and forward a distance in the top, guides at each side of the opening attached to the outer sides of said back and top, said guides extending forward of the front end of said opening, drain members located within said guides against the back and top, a flexible closure comprising a plurality of transverse slats connected together by a flexible covering, said slats extending underneath said guides and resting upon said drain members, whereby the opening in the top may be uncovered or closed, and water coming against the upper side of said top or said closure may be drained away by said drain members.

9. A construction containing the elements in combination defined in claim 8, combined with a flexible metal strip attached to the outer side of and to the ends of said slats, said strips lying underneath the guides.

In testimony whereof I affix my signature.

WALTER S. SMITH.