

J. D. HUNT, JR.  
 SIDE PLANE FOR BOATS.  
 APPLICATION FILED OCT. 1, 1912.

1,074,951.

Patented Oct. 7, 1913.

Fig. 1.

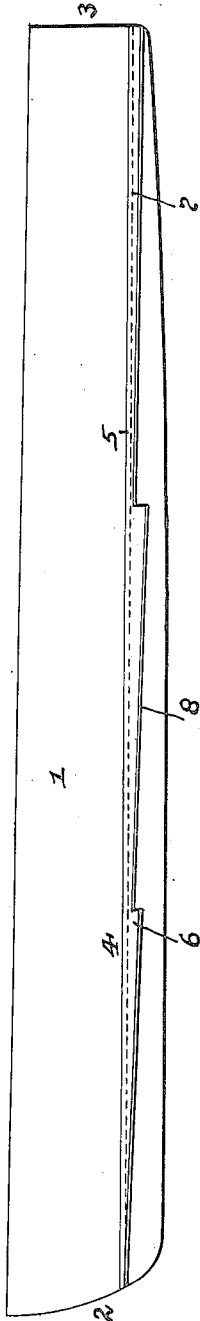


Fig. 2.

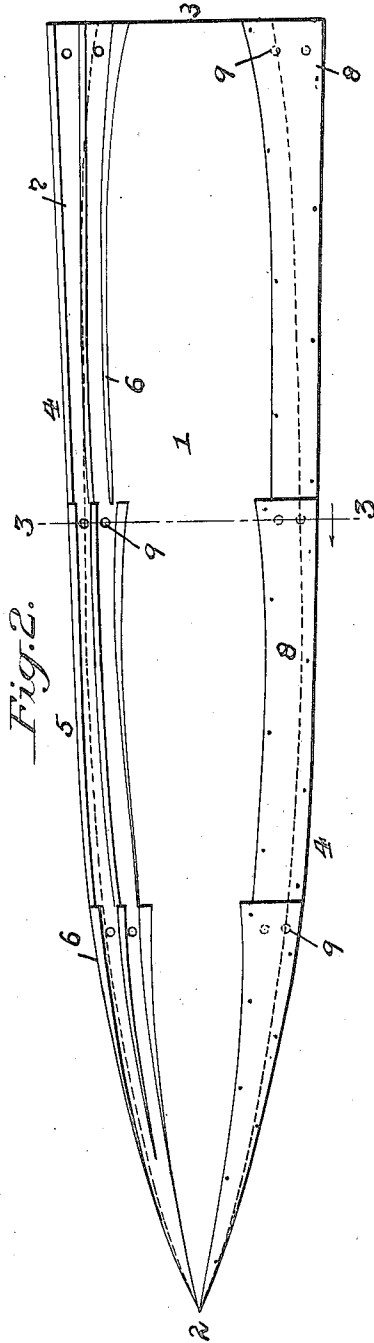
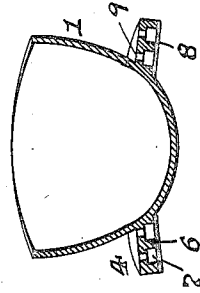


Fig. 3.



WITNESSES

*T. D. Humphreys*  
*J. A. Langston Jr.*

INVENTOR

*John D. Hunt Jr.*  
 By *J. W. Cooney*  
 attorney.

# UNITED STATES PATENT OFFICE.

JOHN D. HUNT, JR., OF ALEXANDRIA BAY, NEW YORK.

## SIDE PLANE FOR BOATS.

1,074,951.

Specification of Letters Patent.

Patented Oct. 7, 1913.

Application filed October 1, 1912. Serial No. 723,340.

*To all whom it may concern:*

Be it known that I, JOHN D. HUNT, Jr., a citizen of the United States, and a resident of Alexandria Bay, in the county of Jefferson and State of New York, have invented a new and useful Improvement in Side Planes for Boats; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to boats and has special reference to side planes for use on boats which may be built integral with the hull of the boat when the same is made or may be applied at any time to the hull of old boats.

The object of my invention is to provide a cheap, simple and efficient form of side plane which may be attached to the hull of any boat such as cruisers, yachts, launches, skiffs, tenders, yawls, dingees, hydroplanes and other forms of boats, whether such boat is of the displacement or of the light weight type built for speed and when added to such boats the side planes will tend to keep the boat on a level keel in both smooth and rough water; will also render it easy and safe to turn the boat at either low or high speed, will prevent the waves and spray from breaking over into the boat, will increase the speed by using less displacement and will prevent capsizing or tilting of the boat.

My invention consists, generally stated, in the novel arrangement, construction and combination of parts as hereinafter more specifically set forth and described and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved side planes for boats I will describe the same more fully referring to the accompanying drawings, in which—

Figure 1 is a side elevation of a boat showing a series of side planes applied thereto. Fig. 2 is an inverted plan view of the boat with the side planes attached thereto. Fig. 3 is a cross-sectional view of the same on the line 3—3 of Fig. 2 showing the grooves for air and water.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing 1 represents a boat hull which may be of any desired length and width and 2 indicates the bow of such boat and 3 the stern. My improved

side planes 4 may be attached to the boat in pairs or in any number of pairs, as desired, according to the requirements and necessities as to speed, etc. The side planes 4 may also be applied to the boat hull 1 during the course of construction or may be applied to any hull at any time. The planes may be applied on the bow 2, the midships and stern 3 of the boat or at any one of these designated positions on each side of the boat hull 1. The side planes 4 consist of a board or metal plate 5 which is attached to the hull of the boat in any suitable manner or formed integral therewith and on the under side of which is a series of ribs 6, which form grooves 7 between the same, the purpose of which is hereinafter explained. These ribs 6 extend from a point substantially near the forward part of the side planes and will be flush therewith on their forward end but will gradually taper back until they are of considerable depth at the rear end of the plane. Beneath the board or metal plate 5 and the ribs 6 and fitting over such ribs in order to entirely cover the grooves 7 and thereby form pockets is a metal plate 8 which is secured to the board or metal plate 5 in any suitable manner and its outer lines will conform with the outer lines of such board or plate. The grooves 7 will be open at the rear end of the plane and at a point substantially near the end of the board or plate 5 a hole 9 extends through the same and communicates with each one of the grooves 7, as hereinafter described. The upper face of the board 5 will be perfectly flat and regular and its sides will taper out gradually from the bow of the boat to the end of such plane and in cases where several series of planes are used the board or plate 5 may be extended the entire length of the series of side planes 4 and will form a perfectly regular surface having only the holes 9 extending through the same and into the grooves 7 beneath such board. When one or more pairs of planes are applied to the boat they will present in appearance on the under side of the same long steps of varying height or similar height and of varying width or similar width while the top of the planes will present a perfectly smooth surface from the bow 2 to the stern 3, with only the holes 9 extending into the grooves 7 in the different planes.

The grooves 7 may be of any varying

height, width, length and spacing and the plane 4 will conform on the inner edges to the lines of the boat to which it is applied, and its outer curved surface will taper in width from the bow or from the direction of the bow to conform to the necessities of displacement in smooth or rough water.

The grooves 7 are intended to supply spaces for air and water underneath the board or plate 5 and are covered over by the plate or sheet 8 to make an inclined smooth surface resistance to the water and they are designed according to a boat's speed and safety requirements. The water will be sucked into the grooves 7 when the boat is in motion and such water will only enter the rear of said grooves for a short distance in order to compress the air therein and will then escape through holes 9. The front of each plane is sealed air tight by the plate 8, so that the air and water in the grooves 7 resist the action of the waves, will prevent the reeling or tilting sidewise of the boat while the plane at its rear end will be sheared off either round or angular for the quick releasing of the water, thus offering the least resistance while the holes 9 in the board or metal plate 5 will add to this feature and assist the quick release of the water.

If desired the planes may be applied to any form of boat without this plate or sheet 8 but in such a case the planes would not add to the speed of the boat but would prevent the same from rocking or tilting, and would thus add to its safety.

If desired the holes 9 in the board or plate 5 may be omitted and a space left between each of the planes 4, thus allowing for the quick release of the water from the upper surface of the plane.

The planes may be constructed as before stated of either wood or metal or part wood and part metal and will be light and very easily attached to any form of boat either when the same is being built or after long use.

It will readily be seen that with the use of my improved side planes for boats the keel will be kept perfectly level both in smooth and rough water and tilting or capsizing will be practically impossible; the planes will make it easy and safe to turn at either high or low speed and will keep the waves and spray from breaking over the boat by acting as shields to catch the water. The side planes will also assist in increasing the speed of the boat on account of the same having less displacement, which is one of the most particular features of the invention in that the speed of racing boats may be increased several miles per hour by the use of my improved side planes, as has been proven by practical experience and demonstrations.

Various modifications and changes in the

design, construction and application of my improved side planes for boats may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as my invention and desire to secure by Letters-Patent is:—

1. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs decreasing in depth from rear to front.

2. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of said plane, and a bottom plate covering said ribs and grooves forming air and water pockets between said plates.

3. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of said plane, and a bottom plate covering said ribs and grooves forming air and water pockets between said plates, said pockets being open at their rear ends.

4. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of such plane, a bottom plate covering said ribs and grooves forming air and water pockets between said plates, and openings through said upper plates and communicating with said pockets.

5. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of such plane, a bottom plate covering said ribs and grooves forming air and water pockets between said plates, said pockets being open at their rear ends, and openings through said upper plates and communicating with said pockets.

6. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, and a plate supported on ribs below said first named plate, said ribs increasing in depth from front to rear, said plates forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat.

70

75

80

85

90

95

100

105

110

115

120

125

130

7. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a chamber beneath the same wherein air is compressed by the action of the water during the forward motion of said boat, and means in said plate for releasing the water at the rear of said plane.

8. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, a plate below said first named plate forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat, and means in said first named plate for releasing the water at the rear of said plane.

9. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, a plate supported on ribs below said first named plate and forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat, and means in said first named plate for releasing the water at the rear of said plane.

10. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, a plate supported on ribs below said first named plate, said ribs increasing in depth from front to rear, said plates forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat, and means in said first named plate for releasing the water at the rear of said plane.

11. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a

chamber beneath the same wherein air is compressed by the action of the water during the forward motion of said boat, and openings in said plate for releasing the water at the rear of said plane.

12. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, a plate below said first named plate forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat, and openings in said first named plate for releasing the water at the rear of said plane.

13. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, a plate supported on ribs below said first named plate and forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat, and openings in said first named plate for releasing the water at the rear of said plane.

14. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, a plate supported on ribs below said first named plate, said ribs increasing in depth from front to rear, said plates forming a chamber between the same wherein air is compressed by the action of the water during the forward motion of said boat, and openings in said first named plate for releasing the water at the rear of said plane.

In testimony whereof, I the said JOHN D. HUNT, Jr., have hereunto set my hand.

JOHN D. HUNT, JR.

Witnesses:

THOS. F. M. HUNT, Jr.,  
ERNEST R. DE YOUNG.