CLAIMS

1. A frictional resistance reducing device comprising:

a first air discharge part which is formed on a bottom surface of a hull and discharges air into water;

a second air discharge part which is formed behind the first air discharge part and discharges air into the water; and

a first air supplying source which supplies air to the first air discharge part or the second air discharge part,

wherein the first air discharge part and the second air discharge part are arranged in a line in a length direction of the hull, and at least part of a first air discharge period of the first air discharge part and at least part of a second air discharge period of the second air discharge part overlap each other, and

wherein the amount of air discharged from the first air discharge part is smaller than or equal to the amount of air discharged from the second air discharge part when air is discharged simultaneously from the first air discharge part and the second air discharge part.

2. The frictional resistance reducing device of claim 1, wherein a distance between the first air discharge part and the second air discharge part is smaller than or equal to 0.1 times a full length of the hull.

3. The frictional resistance reducing device of claim 1, wherein a width of the first air discharge part is smaller than or equal to a width of the second air discharge part.

4. The frictional resistance reducing device of claim 1, wherein the width of each of the first air discharge part and the second air discharge part is smaller than or equal to 0.5 times the width of the hull.

5. The frictional resistance reducing device of claim 1, wherein the first air discharge part and the second air discharge part are disposed closer to a bow than to a stern and further comprising a third air discharge part which is formed on the bottom of the hull, is disposed closer to the stern than to the bow and discharges air into the water.

6. The frictional resistance reducing device of claim 5, wherein at least part of a third air discharge period of the third air discharge part overlaps at least part of the first air discharge period and at least part of the second air discharge period.

7. The frictional resistance reducing device of claim 5, wherein the hull comprises twin skegs, and a width of the third air discharge part is smaller than a gap between the twin skegs.

8. The frictional resistance reducing device of claim 5, further comprising a second air supplying source which is spaced apart from the first air supplying source and supplies air to the third air discharge part.

9. A device for reducing frictional resistance of a hull having twin

skegs, the device comprising:

a first air discharge part which is formed on a bottom surface of a hull and discharges air into water;

a second air discharge part which is formed behind the first air discharge part and discharges air into the water;

a first air supplying source which supplies air to the first air discharge part or the second air discharge part;

a third air discharge part which discharges air to form an air layer on a bottom inclined part located between the twin skegs and inclined upward toward a stern; and

a second air supplying source which supplies air to the third air discharge part,

wherein the amount of air discharged from the first air discharge part is smaller than or equal to the amount of air discharged from the second air discharge part when air is discharged simultaneously from the first air discharge part and the second air discharge part.

10. The device of claim 9, wherein the air discharge part is disposed ahead of a boundary between a bottom surface of the hull and the bottom inclined part.

11. The device of claim 9, wherein the air discharge part is disposed between a position located 1.5 stations forward from the boundary and the boundary.

12. The device of claim 9, wherein the air discharge part is disposed such that a longitudinal centerline of the hull passes through a widthwise center of the air discharge part, and a width of the air discharge part is smaller than a gap between the twin skegs.

13. The device of claim 9, wherein one or more additional air discharge parts which are disposed closer to a bow than to the stern of the hull and discharge air to form an air layer on the bottom surface of the hull are formed.

14. A ship comprising:

the frictional resistance reducing device of claim 1; and

a hull equipped with the frictional resistance reducing device.