DESCRIPTION

Title of Invention: BLOWER APPARATUS

TECHNICAL FIELD

[0001] The present disclosure relates to a blower apparatus having a display device, and more particularly to a blower apparatus that sends out an airflow toward the front of a display surface.

BACKGROUND ART

[0002] There is known an image display device that includes an air blower, and the image display device blows out airflows toward a center of a screen from blowing ports at locations separated from each other with the screen viewed by a viewer interposed therebetween and sends out the airflows forward from the screen by colliding the airflows with each other (for example, PTL 1).

Citation List

Patent Literature

[0003] PTL 1: Unexamined Japanese Patent Publication No. 2006-352424

SUMMARY

[0004] For example, the above image display device can imitate wind blown from a window by an airflow sent forward from a screen displaying a landscape. That is, according to this image display device, it is possible to provide a realistic feeling (bodily sensation) of a situation in which the airflow is blown out to the viewer in front of the display surface to some extent, but it is required to further improve the realistic feeling (bodily sensation).

[0005] The present disclosure is to provide a blower apparatus capable of improving sensibility of an airflow sent toward the front of a display surface.

[0005a] In an aspect, the present disclosure refers to a blower apparatus comprising:

a first blow-out port from which a first airflow is blown out to flow in substantially parallel with a display surface of a display device having a housing that has a substantially rectangular shape in front view, the first airflow flowing in a first direction from one side of the housing of the display device to another side of the housing facing the one side;

a second blow-out port from which a second airflow is blown out to flow in substantially parallel with the display surface and in a second direction from the other side to the one side;

a first switch that is provided on a flow path of the first airflow to the first blow-out port, and switches between an airflow having a first temperature and an airflow having a second temperature different from the first temperature to be blown out from the first blow-out port as the first airflow;

a second switch that is provided on a flow path of the second airflow to the second blow-out port, switches between the airflow having the first temperature and the airflow having the second temperature to be blown out from the second blow-out port as the second airflow; and

a controller that controls a pair of air blowers, the first switch, and the second switch to cause the first airflow from the first blow-out port and the second airflow from the second blow-out port to collide with each other, thereby generating a third airflow flowing from the display surface, the pair of air blowers being provided outside and send out the airflow having the first temperature and the airflow having the second temperature to the first switch and the second switch, respectively, the first airflow and the second airflow each having a blown air volume and a temperature which are controlled by the controller.

[0005b] In an aspect, the present disclosure refers to blower apparatus that blows out an airflow toward a user who exercises by using an exercise device, the blower apparatus comprising:

a first blow-out port that extends along one side of a housing of a display device that is installed on a front surface of the exercise device and has a housing having a substantially rectangular shape in front view, and from which a first airflow is blown out;

a second blow-out port that extends along another side of the housing facing the one side, and from which a second airflow is blown out;

a first switch that is provided on a flow path of the first airflow to the first blow-out port, switches between an airflow having a first temperature and an airflow having a second temperature different from the first temperature to be blown out from the first blow-out port as the first airflow;

a second switch that is provided on a flow path of the second airflow to the second blow-out port, switches between the airflow having the first temperature and the airflow having the second temperature to be blown out from the second blow-out port as the second airflow; and

a controller that controls a pair of air blowers, the first switch, and the second switch to cause the first airflow and the second airflow to forward from a display surface to intersect at a position of the user who uses the exercise device, the pair of air blowers being provided outside and send out the airflow having the first temperature and the airflow having the second temperature to the first switch and the second switch, respectively, the first airflow and the second airflow each having a blown air volume and a temperature which are controlled by the controller.

[0006] A blower apparatus according to an example in the present disclosure includes a first blow-out port, a second blow-out port, a first switch, a second switch, and a controller. The first blow-out port blows out a first airflow in substantially parallel with a display surface of a display device having a housing which has a substantially rectangular shape in front view in a first direction from one side of the housing of the display device to the other side of the housing facing the one side. The second blow-out port blows out a second airflow in substantially parallel with the display surface in a second direction from the other side of

CLAIMS

1. A blower apparatus comprising:

a first blow-out port from which a first airflow is blown out to flow in substantially parallel with a display surface of a display device having a housing that has a substantially rectangular shape in front view, the first airflow flowing in a first direction from one side of the housing of the display device to another side of the housing facing the one side;

a second blow-out port from which a second airflow is blown out to flow in substantially parallel with the display surface and in a second direction from the other side to the one side;

a first switch that is provided on a flow path of the first airflow to the first blow-out port, and switches between an airflow having a first temperature and an airflow having a second temperature different from the first temperature to be blown out from the first blow-out port as the first airflow;

a second switch that is provided on a flow path of the second airflow to the second blow-out port, switches between the airflow having the first temperature and the airflow having the second temperature to be blown out from the second blow-out port as the second airflow; and

a controller that controls a pair of air blowers, the first switch, and the second switch to cause the first airflow from the first blow-out port and the second airflow from the second blow-out port to collide with each other, thereby generating a third airflow flowing from the display surface, the pair of air blowers being provided outside and send out the airflow having the first temperature and the airflow having the second temperature to the first switch and the second switch, respectively, the first airflow and the second airflow each having a blown air volume and a temperature which are controlled by the controller.

2. The blower apparatus according to Claim 1, wherein the controller controls a position of the display surface where the third airflow is generated by controlling a blown air volume of the pair of air blowers based on a content of an image displayed on the display surface and controlling the blown air volume of the first airflow blown out from the first blow-out port and the blown air volume of the second airflow blown out from the

second blow-out port.

3. The blower apparatus according to Claim 1 or 2, wherein the controller controls the first switch and the second switch to switch between the airflow having the first temperature and the airflow having the second temperature based on the content of the image displayed on the display surface.

4. A blower apparatus that blows out an airflow toward a user who exercises by using an exercise device, the blower apparatus comprising:

a first blow-out port that extends along one side of a housing of a display device that is installed on a front surface of the exercise device and has a housing having a substantially rectangular shape in front view, and from which a first airflow is blown out;

a second blow-out port that extends along another side of the housing facing the one side, and from which a second airflow is blown out;

a first switch that is provided on a flow path of the first airflow to the first blow-out port, switches between an airflow having a first temperature and an airflow having a second temperature different from the first temperature to be blown out from the first blow-out port as the first airflow;

a second switch that is provided on a flow path of the second airflow to the second blow-out port, switches between the airflow having the first temperature and the airflow having the second temperature to be blown out from the second blow-out port as the second airflow; and

a controller that controls a pair of air blowers, the first switch, and the second switch to cause the first airflow and the second airflow to forward from a display surface to intersect at a position of the user who uses the exercise device, the pair of air blowers being provided outside and send out the airflow having the first temperature and the airflow having the second temperature to the first switch and the second switch, respectively, the first airflow and the second airflow each having a blown air volume and a temperature which are controlled by the controller.

5. The blower apparatus according to Claim 4, wherein the controller controls the first switch and the second switch to switch between the airflow having the first temperature and the airflow having the second temperature based on a content of an image

displayed on the display surface.