

ABSTRACT

There is provided an air sterilization apparatus that is excellent in applicability to a rectangular duct and can effectively irradiate dust, bacteria, viruses, and the like in circulating air with ultraviolet light while preventing an increase in blowing resistance. The air sterilization apparatus includes a rectangular frame, an ultraviolet light emitting unit, and first reflecting surfaces. The frame includes a pair of first opposite side portions spaced apart from each other in a first direction and extending along a second direction, and a pair of second opposite side portions spaced apart from each other in the second direction and extending along the first direction. A ventilation space is defined inside the frame. The ventilation space allows air to flow therethrough along a third direction substantially orthogonal to the first direction and the second direction. The ultraviolet light emitting unit is provided on at least one of the pair of first opposite side portions, and emits ultraviolet light toward the ventilation space. The first reflecting surfaces are respectively provided on the pair of first opposite side portions so as to face each other. Each first reflecting surface is concave such that a center thereof in the third direction bulges to the outside of the ventilation space. The first reflecting surfaces reflect the ultraviolet light.

A length of the ventilation space in the third direction is shorter than a length of the ventilation space in the first direction and a length of the ventilation space in the second direction, and a shape of each first reflecting surface in any cross section perpendicular to the second direction is defined based on an arc having a radius of curvature equal to or larger than a distance between the pair of first reflecting surfaces.