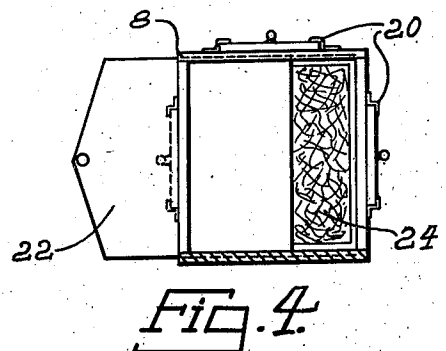
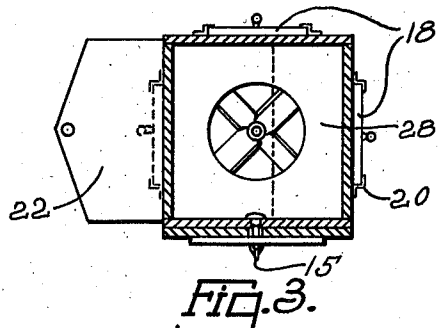
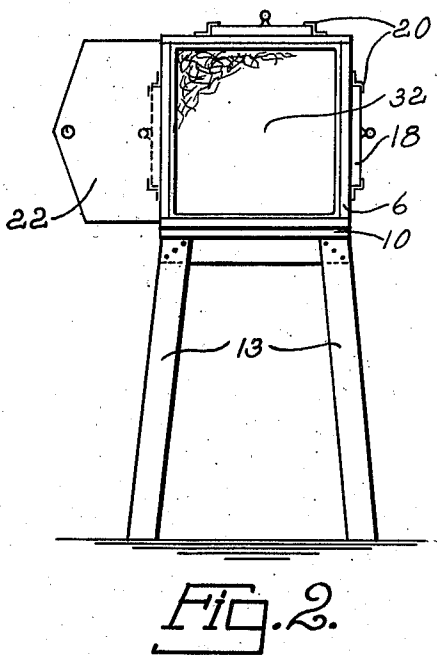
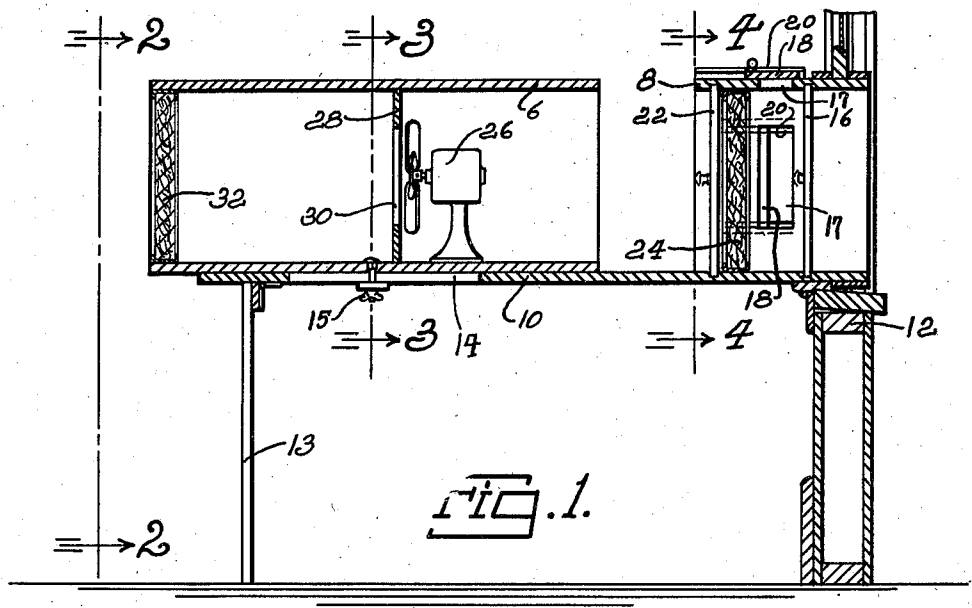


Nov. 23, 1937.

C. W. EILBER ET AL.
AIR CONDITIONING APPARATUS

2,100,072

Filed June 4, 1936



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2,100,072

AIR CONDITIONING APPARATUS

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Application June 4, 1936, Serial No. 83,411

3 Claims. (Cl. 98-94)

This invention relates to air conditioning apparatus.

An object of the invention is to provide improved means for conditioning air and more particularly to filter air by which foreign particles, such as pollen and other irritant producing particles and substances are separated from the air.

The invention has particular significance in the conditioning of air by filtration thereof for affording relief to those individuals who are so unfortunate as to be afflicted with catarrh and more especially hay fever. It is well known that such ailments are made acute by various irritants carried in the air entering the nasal passages.

15 The invention in the main includes an air chamber that may be set up in a room and into which air is passed for filtering. The invention contemplates the circulation of room air, or air taken from the outside, or a mixture of both. Air
20 is circulated through the chamber by means of a power operated fan which may be positioned within the chamber.

An illustrative embodiment of the invention is shown in the accompanying drawing, in which:

Fig. 1 is a side elevational view, partly in section, of an apparatus embodying the invention.

Fig. 2 is an end elevational view taken in the direction of the arrows 2-2 of Fig. 1.

Figs. 3 and 4 are transverse sections taken on the lines 3-3 and 4-4, respectively, of Fig. 1.

Referring to the drawing, there is shown an air chamber comprising sections 6 and 8 mounted on a base 10 having an end resting upon and supported by a sill in the window opening of a room wall 12. The opposite end of the base 10 rests upon legs 13 located inwardly of the room wall 12. The section 6 is slidably mounted on the base 10 for longitudinal movement relative to the section 8. The base 10 has a longitudinally extending slot 14 receiving a bolt 15 carried in the bottom wall of the section 6. The base 10 forms the bottom wall of the section 8.

Outside air is drawn into the section 8 through the open end of the latter and a laterally slidable door 16 controls the opening and the amount of air entering the chamber therethrough. Room air may also be drawn into the section 8 through openings 17 in the side and top walls thereof. The size of these openings can be varied by a shutter
50 18 slidably mounted in channels 20 formed exteriorly of the section wall. Another slidable door 22 is positioned adjacent the inner end of the section 8 and is slidable laterally thereof for controlling the discharge of air from the section 8. Intermediate the doors 16 and 22 and inwardly

of the shutter controlled openings 17 in the side and top walls of the section 8 is a filter 24 through which air from the outside and also from the room is passed for the purpose of removing harmful irritants, such as pollen. While the air
5 chamber is shown as comprising two sections, it will be understood that such chamber may comprise a single chamber if desired.

Air is drawn into the chamber and discharged therefrom by means of a fan 26 mounted on the
10 bottom wall of the section 6. A wall 28 having a central opening 30 is positioned inwardly of the fan 26, as shown in Fig. 1. The discharge end of the section 6 is provided with a filter 32,
15 similar to the filter 24. These filters preferably comprise a compact mass of spun glass fibers treated with a collective agent such as a non-drying oil or other substance that will collect fine particles of dust pollen and the like ordinarily invisible to the naked eye. The filters are
20 preferably made in the form of pads which may be readily replaced. It will be understood, of course, that the invention in its broader aspects is not limited to the particular formation of the filtering elements set forth.

The apparatus is particularly advantageous in
25 affording relief to those suffering from hay fever and similar ailments. It is adapted to be installed in a room and may be so conditioned that room air only is passed through the apparatus for conditioning, or if desired air may be taken from the
30 outside only, or a mixture of room and outside air passed into and filtered simultaneously. When it is desired to quickly condition room air, the section 6 is moved to the position indicated in Fig. 35
1 and the slide door 22 moved to close the innermost opening in the section 8. With the apparatus in this position there is a circulation and filtering of room air only, the conditioning of the air being effected in a relatively short time as
40 the air course is shortened and there is but a single filtering. Further and increased circulation of room air results from moving the section 6 against the section 8, thereby forming a single
45 chamber, and by adjusting the door 22 and shutters 18 room air is drawn into the chamber and passes through both filters 24 and 32. This results in a more thorough filtering.

When the parts are in the position just described the air supply can be taken from the
50 outside through the opening in the wall 12 by merely adjusting the slide door 16, air so taken mingling with the room air drawn into the chamber through the openings 17 in the walls of the section 8. If desired, a supply of fresh air only

may be admitted from the outside by closing the shutters 18. It will thus be seen that provision is made for the conditioning of room air only, or both room and outside air, or outside air only.

5 Various changes including the size, shape and arrangement of parts may be made without departing from the spirit of the invention, and it is not our intention to limit the scope thereof other than by the terms of the appended claims.

10 What we claim is:

1. Air conditioning apparatus including an air chamber having axially aligned sections, a filter in each of said sections, means in one of said sections and between said filters for inducing the circulation of air through said filters, and means for adjusting the longitudinal position of one of said sections relative to the other of said sections whereby said sections may be variably spaced.

20 2. Air conditioning apparatus including an air chamber having open ended axially aligned tu-

bular sections one movable with respect to the other, a filter in each of said sections, means in one of said sections and between said filters for circulating air through both of said filters when the sections are in end to end contact and for circulating air through only one of said sections when the sections are separated.

3. Air conditioning apparatus including two axially aligned open ended tubular sections, one movable relative to the other, the other adapted to be positioned for communication with the exterior of a room, a filter in each of said sections, a fan in said movable section for circulating air from the exterior of a room through both sections and filters when the sections are in end to end contact and for circulating air from the room only through only one of said sections and its filter when said sections are separated.

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