

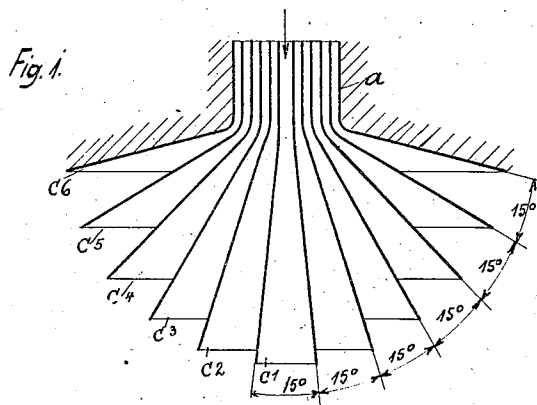
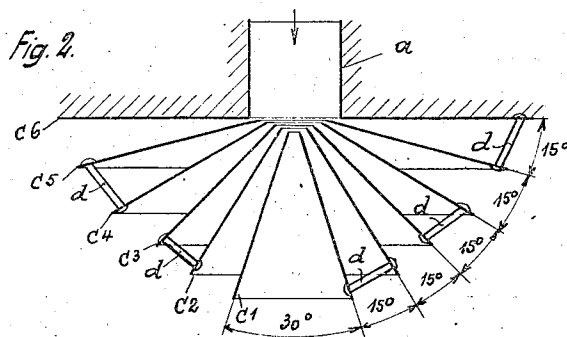
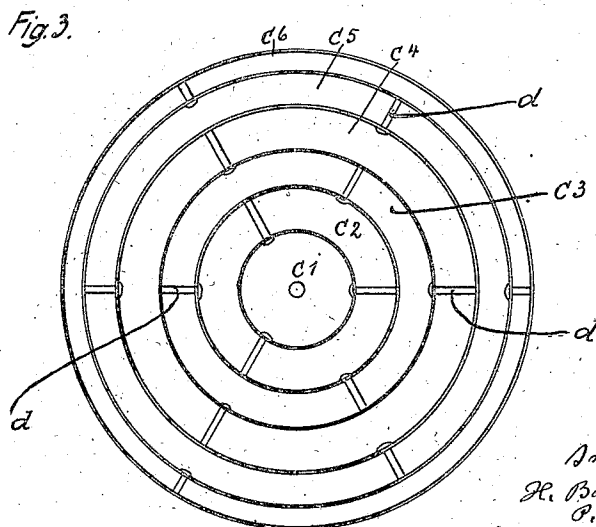
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DEVICE FOR REDUCING THE ENERGY OF FLOW OF A FLOWING FLUID

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UNITED STATES PATENT OFFICE.

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DEVICE FOR REDUCING THE ENERGY OF FLOW OF A FLOWING FLUID.

Application filed September 8, 1926, Serial No. 134,311, and in Germany September 21, 1925.

When air is introduced into a space, room, chamber or the like, the energy of air-flow often acts in the form of a disagreeable draught. For the purpose of obviating this drawback, it has been proposed, to subdivide the air-current on entering the room into a plurality of individual smaller currents, by arranging concentrically several conical partitions to be passed by the air. Our invention does not consist in this arrangement generally, but only in a special form of it.

We have found, that a particularly satisfactory result is attained by concentrically arranging six partitions forming relatively to each other angles of 15° .

In the drawings Fig. 1 shows a diagram for explaining the idea of the invention.

Fig. 2 is a sectional view, and

Fig. 3 a plan of a device for carrying the invention into practice.

As to Fig. 1: Supposing fresh air is to be introduced into a room through a cylindrical hole a in a wall by suction or by pressure, then the arising of a disagreeable or harmful draught can be obviated completely by providing a set of six conical members or funnels $c^1, c^2, c^3, c^4, c^5, c^6$ forming with each other angles of 15° . These conical members form the prolongations of corresponding cylindrical members or tubes arranged in the wall-hole a . The arrow indicates the direction of the flow of air. The fresh air can be introduced into the respective room (for instance a railway dining car or a large street car or salons etc. in ships, and so on) and divided in it quickly and without any perceptible draught, at least without any disagreeable or harmful draught, especially if the set of funnels is located in the ceiling of the respective room,

so that the air is introduced from above. The outer air may, in the case of cars and ships, be caused to enter the funnels merely by the movement of the respective vehicle.

Practically the same is true, however, also if the central funnel c' has a width of 30° , as the devices show in Figs. 2 and 3, in which case the outermost member c^6 does no more form a funnel but a circular disk. This disk may, in fact, be dispensed with as the inner surface of the wall may be used as a substitute for it. The constructional form shown in Figs. 2 and 3 differs from Fig. 1 also by the omission of the concentric cylindrical members or tubes located in the wall-hole, which itself may be formed by a tube a . These several tubes are, in fact, of secondary importance.

It is a matter of course that the funnels must be connected with each other by any suitable means, but we do not enter into details concerning this point as there are very many possibilities and no particular of them forms a part of this invention. Only to give an example we have shown in Figs. 2 and 3 the funnels connected with each other by rivets d .

We claim:—

A device for reducing the energy of air-flow comprising six concentric and conical partitions for subdividing the air-current, the partition in the centre having a width of no more than 30° while the other partitions form with the middle partition and with each other angles of 15° .

In testimony whereof we affix our signatures.

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