

Feb. 14, 1933.

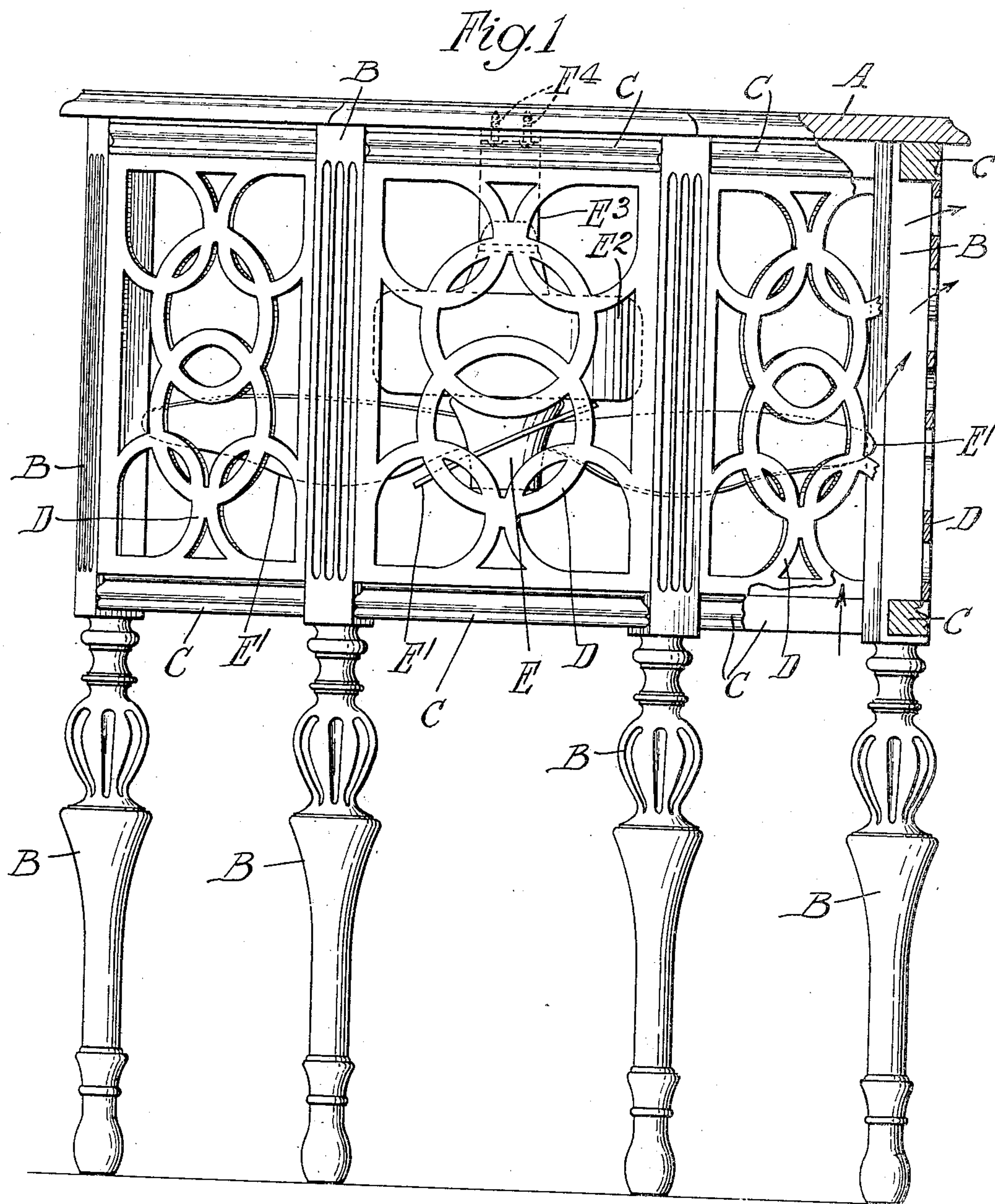
L. M. PERSONS

1,897,860

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2 Sheets-Sheet 1



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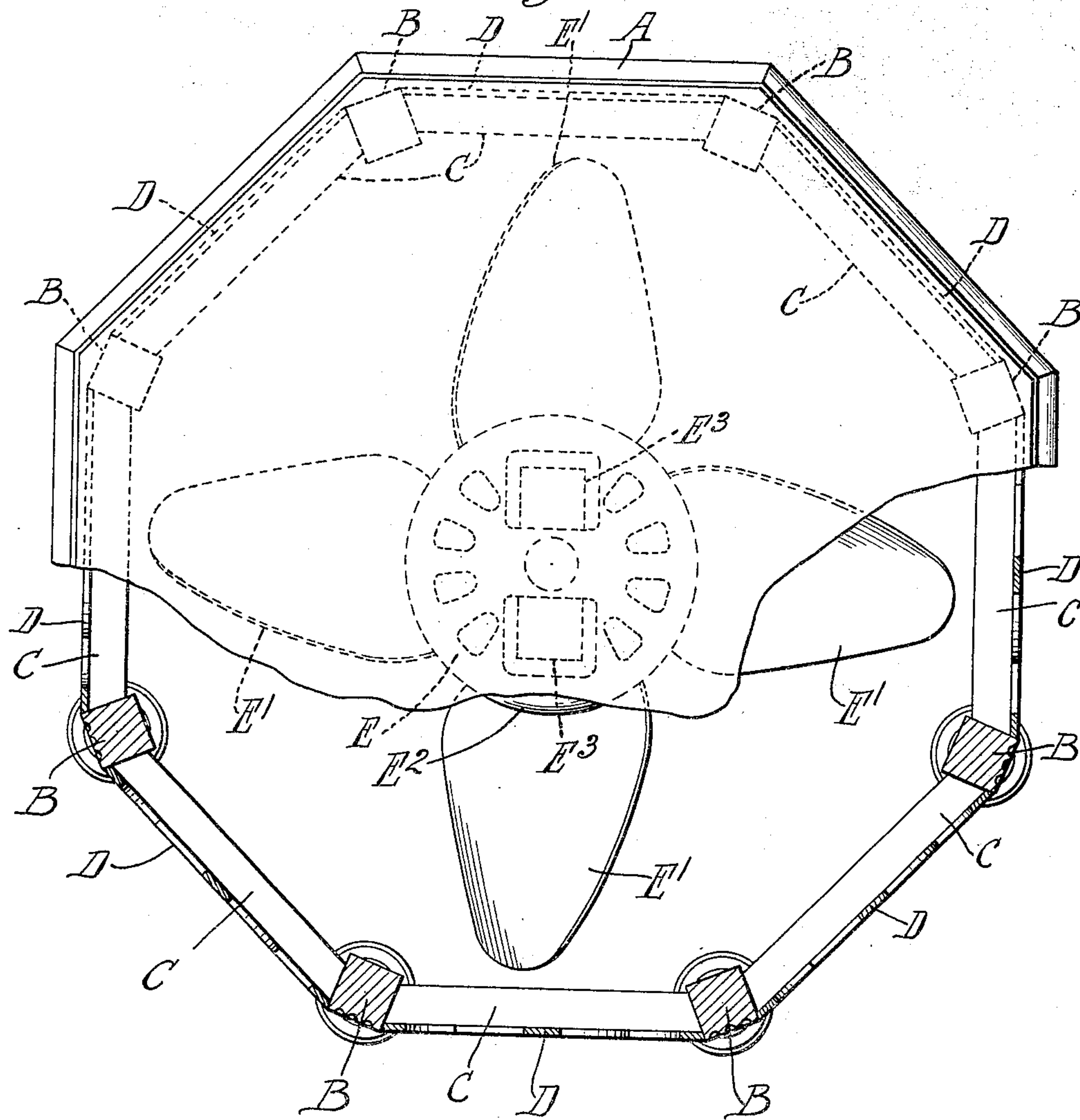
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Fig. 2



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UNITED STATES PATENT OFFICE

LAURENCE M. PERSONS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO EMERSON ELECTRIC MANUFACTURING CO., OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI

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Application filed August 4, 1930. Serial No. 472,850.

My invention relates to a device for distributing air, and has for one purpose the provision of air distributing or circulating means whereby a fan or its equivalent may be employed to distribute or circulate air in a room. One object is the provision of means for directing air outwardly from a fan simultaneously in a plurality of directions. Another object is the provision of means for circulating air laterally in a room at the level of maximum utility. Another object is the provision of an attractive article of furniture which shall be adaptable for use as an air circulating device. Other objects will appear from time to time in the course of the specification and claims.

I illustrate my invention more or less diagrammatically in the accompanying drawings, wherein:

Figure 1 is a side elevation with parts broken away, and

Figure 2 is a plan view with parts broken away.

Like parts are indicated by like symbols throughout the specification and drawings.

Referring to the drawings, A generally indicates a plane surface member, herein shown as a table top. Said table top is herein shown as mounted upon a plurality of legs B connected intermediate their top and bottom by a transverse member C. The space, defined by each pair of legs B and by each pair of cross members or braces C, may be filled, for example, by an ornamental grille D.

Positioned beneath the table top A and in the space defined by the grilles D and the legs B, is any suitable air agitating or delivering device, herein shown as a fan E with the blades E¹, which may be actuated, for example, by the motor, diagrammatically illustrated as E². I have herein shown the motor as mounted upon a hanger E³, secured to the bottom of the table top A as by the screws E⁴.

It will be realized that whereas I have described and shown a practical and operative device, that nevertheless many changes may be made in size, shape, number and dis-

position of parts without departing from the spirit of my invention.

The use and operation of my invention are as follows:

It is characteristic of my invention that I employ a baffle, preferably generally horizontal, and direct against the baffle a current or moving column of air. In the particular employment of my invention herein described and shown, I so rotate the fan E as to cause the blades E¹ to direct air upwardly and to some extent outwardly against the bottom of the table top A, which serves as a horizontal baffle. As the air cannot pass through the baffle, it is constrained to outward movement along the table top. Where this outward movement is entirely free in every direction, it may, under some circumstances, result in a relatively weak circulation of air. I therefore prefer to employ limit means for to some extent limiting and directing the outward movement of the air, although some of my claims are not limited to this particular employment or adaptable with my invention. I may employ merely the table legs B as constraining means. Having, in the present instance, an octagonal table, the result would be the direction of eight rotating columns of air. In practice I find that employing merely the table legs themselves gives a fair intensity of ultimate delivery or circulation throughout the room, and a far greater penetration into the room of the circulated air than is obtained by the employment of a baffle without any limiting means.

In some circumstances I find it desirable more or less to conceal and protect the fan and fan blades. As an example, I illustrate the ornamental grilles D. These grilles may, if desired, be dispensed with, but they improve the appearance of the device, they conceal the fan and they protect the fan.

Preferably the bottom of the device is left open, air passing freely upwardly toward the fan and being directed outwardly between the legs B and through the grille D.

The present invention has the advantage of permitting the employment of a large and relatively slow fan, which delivers a rela-

tively large volume of air at a relatively small velocity. By employing effective concealing means, such as a cabinet or table, a fan may be used of a size which would normally be unsightly or inconvenient. A large fan is quieter and more efficient than the small, fast fan and the air delivered by it has a more efficient, cooling effect than the delivery of a too rapid flow of air, which evaporates all perspiration and gives the effect of a heating rather than a cooling breeze.

I claim:

1. In an air distribution device, a table top and supports therefor, and air delivery means positioned beneath said top and within the confines of said supports, adapted to deliver air upwardly against the bottom of said table top whereby the air is deflected laterally, said supports being adapted to concentrate said air laterally delivered by the table top into a plurality of more or less restricted columns.

2. The combination with a table having a table top and supports therefor of a fan positioned beneath said table top and within the confines of said supports and adapted to deliver air upwardly against the bottom of said table top whereby the air is deflected laterally, and air-pervious housing means positioned between the supports of said table top enclosing said fan, in line with the lateral delivery of the air baffled by said table top.

3. In combination with a table having a table top and supports therefor, of a large, slow speed fan positioned beneath said table, and means for rotating it at a relatively low velocity, said fan being adapted to deliver air upwardly against the bottom of said table top whereby said air is deflected laterally, and air-pervious housing means extending between the supports for said table top, in line with the lateral delivery of the air baffled by said table top, and means for concentrating the air laterally delivered by the table top into a plurality of more or less restricted columns.

4. In an air distributing device, a table top and legs supporting the same, an air delivery means suspended from the table top and supported within the confines of the legs adapted to deliver air upwardly against the bottom of said table top whereby the air is deflected laterally, said legs impeding the lateral flow of air from the table top and concentrating the same into a plurality of more or less restricted columns.

Signed at St. Louis, State of Missouri,
this 21st day of July, 1930.

LAURENCE M. PERSONS.