No. 866,292. PATENTED SEPT. 17, 1907.

C. R. MESTON.

CEILING FAN.

APPLICATION FILED JUNE 2, 1906.

Fig. 1.

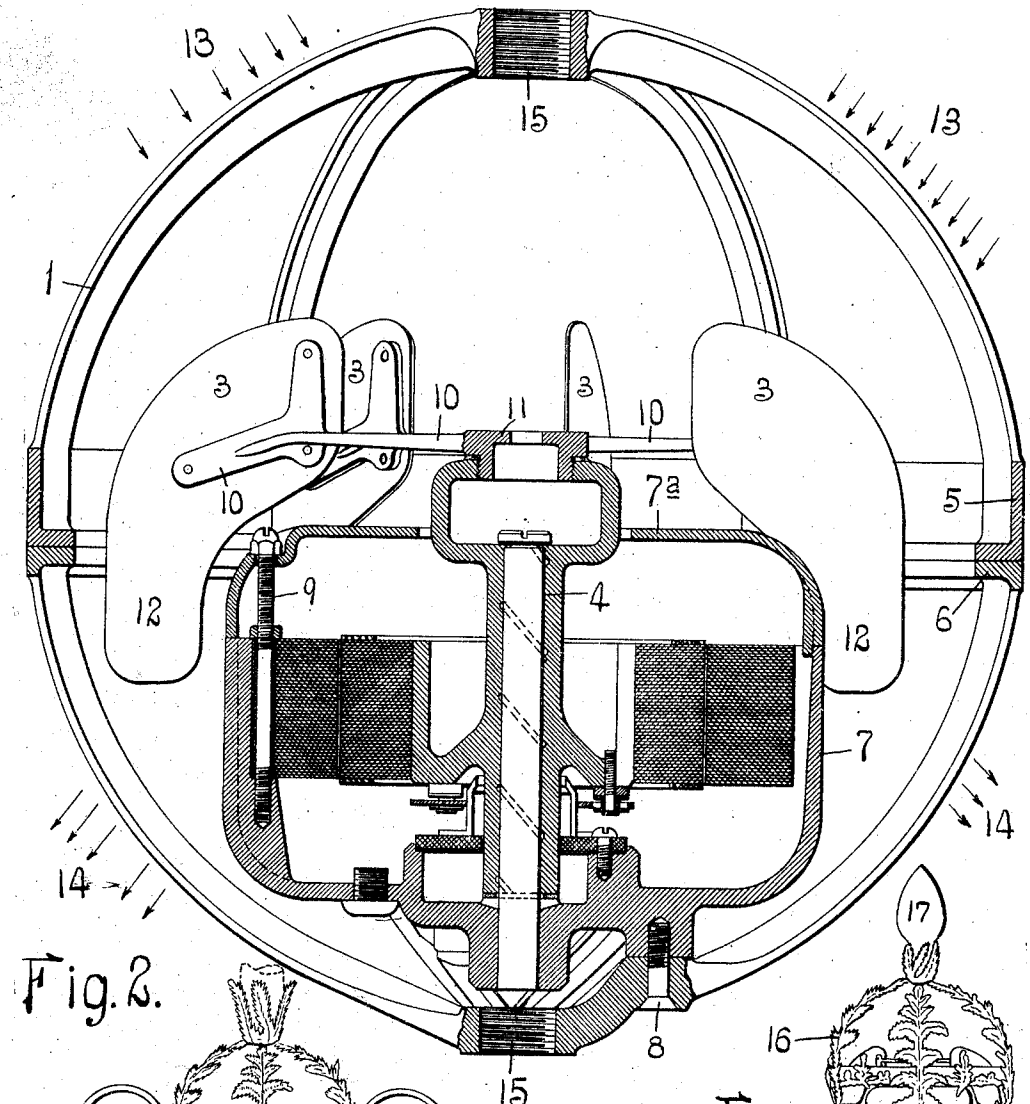


Fig. 2.

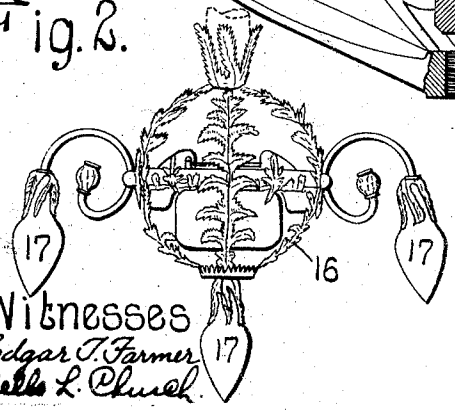


Fig. 3.

Witnesses

Edgar T. Farmer

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Inventor:

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UNITED STATES PATENT OFFICE.

CHARLES R. MESTON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE EMERSON ELECTRIC MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

CEILING-FAN.

No. 866,292. Specification of Letters Patent. Patented Sept. 17, 1907.

Application filed June 2, 1906. Serial No. 319,897.

To all whom it may concern:

Be it known that I, CHARLES R. MESTON, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Ceiling-Fans, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical sectional view of a ceiling fan embodying the features of my invention; Fig. 2 is a view showing the frame in which the fan is located constructed as an electrolier which is suspended from the ceiling of a room; and Fig. 3 shows the frame supported by a newel-post or by the pedestal of a banquet lamp.

This invention relates to electric fans and particularly to ceiling fans and also combined fans and electroliers.

The ceiling fans which have heretofore been in general use were large, cumbersome structures, in which the blades were straight and usually four or five feet in diameter, so that the fan not only took up a great deal of space, but was very inartistic.

One object of my invention is to provide a high speed ceiling fan of small diameter, which presents a neat and ornamental appearance and will be as efficient for distributing air as large-sweep, straight blade fans of the types heretofore in use.

Another object of my invention is to provide a high speed fan which, with its motor, is arranged in an ornamental frame that may be suspended from the ceiling of a room or mounted on a support, such, for example, as a newel-post of a stair-case or the pedestal of a banquet lamp. And still another object of my invention is to provide an electrolier or stand lamp having located in the interior thereof a high speed fan and the motor which rotates it.

Referring to the drawings, which represent the preferred form of my invention, 1 designates a frame, which is preferably of spherical form and of skeleton construction, and located inside of said frame is a motor 2 having fan blades 3 connected to its armature shaft 4. The frame may be formed in two sections 5 and 6, as shown in Fig. 1, and the casing 7 of the motor is fastened to the lower section of the frame by means of screws 8. The casing for the motor is also formed in sections, the upper section 7^a being connected to the lower section by screws 9. The arms 10 which carry the fan blades 3 project radially from a hub 11 that is threaded into the end of the armature shaft 4, said fan blades being preferably of the form shown in Fig. 1 and having downwardly projecting portions 12, the rotation of the fan causing air to be drawn in through the top of the frame, as indicated by the arrows 13 in Fig. 1, and expelled downwardly and radially, as indicated by the arrows 14.

The frame is provided with the threaded openings 15 at its top and bottom to receive the rod which suspends the frame from the ceiling or attaches it directly to the ceiling, and if desired the frame may be inverted so that the fan will distribute the air upwardly and radially instead of downwardly and radially, as shown in Fig. 1.

If it is desired to have a combined fan and electrolier, the frame is provided with ornamental pieces 16, and electric light fixtures 17 are fastened to the frame. As previously stated, the frame in which the fan is located may also be connected to a support such as a rod 18 projecting upwardly from a newel-post, as shown in Fig. 3.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A ceiling fan comprising a hollow sectional frame of skeleton construction, a high-speed electric motor arranged inside of said frame and supported thereby and having its armature shaft disposed vertically, and fan blades connected to the armature shaft of the motor and located entirely within said frame, said blades being so formed that they dispel the air radially across the ceiling of the room; substantially as described.

2. A ceiling fan comprising a supporting frame that consists of two semi-spherical shaped sections of skeleton construction each of which is composed of a plurality of metallic ribs, a high-speed electric motor arranged inside of said frame and connected thereto, and a fan driven by said motor and located completely within the frame, the blades of said fan being so formed that they dispel the air radially; substantially as described.

3. An electric ceiling fan comprising a spherical shaped frame formed in sections and being of skeleton construction, ornamental pieces arranged on the outside of the ribs of said frame, a high-speed electric motor arranged inside of said frame and supported thereby, the armature shaft of said motor being disposed vertically, a fan located entirely within said frame and having its blades connected to the armature shaft of the motor, and electric light fixtures connected to the exterior of the frame; substantially as described.

In testimony whereof, I hereunto affix my signature, in the presence of two witnesses, this 29th day of May 1906.

CHARLES R. MESTON.

Witnesses:
WELLS L. CHURCH,
GEORGE BAKEWELL.