

the exterior aluminum surface 65 of the fixed outer drum 27 becomes heated. Meanwhile the large diameter, multibladed fan 46 is drawing ambient air through the air inlet means 39, thence up through the annular air chamber 37 and past the elongated heated surface 65 for discharge through the air outlet means 42 back into the room.

As shown in FIG. 3, it is preferable to provide a separate electric motor 70, usually about $\frac{1}{2}$ H.P. and driving an air blower 71, these being mounted in a lower air chamber 72 for driving ambient air upwardly in an annular flow path in chamber 37 from the air inlet means 73 to the air outlet means 74. Air outlet means is the intake duct 75 of a hot air heating system 76 so that the heater 20 becomes a furnace rather than a space heater, the separate electric motor 70 enables the thermostat 62 to initiate rotation of the drum until a predetermined temperature is reached in the aluminum outer drum 27, whereupon the thermostat automatically deenergizes the drum motor 45 while continuing to rotate the separate fan, or flower motor such as 70, to furnish hot air to the room or heating system 76 until the casing 27 cools to a predetermined temperature.

I claim:

1. An odor-less, combustion-less, quiet beater comprising:
 - an inner, elongated, upstanding, hollow drum journaled within an outer, elongated, upstanding, hollow drum journaled within an outer, elongated upstanding drum to rotate in a horizontal plane on a vertical axis;
 - said inner drum having an outer, circumferential face spaced from the inner circumferential face of said outer drum by a fixed clearance of about one eighth of an inch to define an annular liquid receptacle therewith;
 - said inner drum having a lower diametrical face spaced from the lower diametrical face of said outer drum to define a shallow liquid receptacle therewith;
 - a supply of oil normally occupying only said shallow liquid receptacle but adapted to be raised upwardly into said annular liquid receptacle when said inner drum is rotated on said vertical axis at substantial speed;
 - and electric motor means for rotating said inner drum on said vertical axis within said outer drum to heat said oil and transfer heat to the outer face of said outer drum.
2. A heater as specified in claim 1 wherein: said inner drum and said outer drum are both cylindrical in configuration.
3. A heater as specified in claim 1 wherein said inner drum is a sealed hollow cylinder and said outer drum is a sealed hollow cylinder except for an oil conduit con-

necting said annular liquid receptacle and said shallow liquid receptacle to outside said outer drum.

4. A heater as specified in claim 1 plus:
 - housing means extending around said outer drum, including an air inlet and an air outlet and
 - an electric motor operated fan within said housing for drawing air into said inlet, circulating said air around said outer drum and blowing air out of said outlet.
5. An odor-less, flameless, noiseless, heater comprising:
 - an inner, cylindrical, sealed, hollow metal drum telescoped within an outer cylindrical, hollow, metal drum,
 - said drums having upstanding cylindrical side walls spaced apart with a fixed clearance of about one eighth of an inch to form an annular, vertical, liquid, receptacle and having bottom walls spaced apart a predetermined distance to form a shallow, horizontal liquid receptacle
 - an electric motor operably connected to one said drum to rotate the same on a vertical axis relative to the other at a substantial speed, and
 - a supply of oil normally occupying only said shallow liquid receptacle but rising into said annular liquid receptacle, when one said drum is so rotated, to transfer frictional heat to said drums.
6. A combination as specified in claim 5 wherein: said oil is a light oil and is normally in contact with both the bottom wall of said inner drum and the bottom wall of said outer drum.
7. A combination as specified in claim 5 plus:
 - a housing extending around said telescoped drums and
 - electric motor operated fan means in said housing for drawing ambient air into said housing, around said drums and discharging it out of said housing.
8. The method of generating heat in an odorless, flameless noiseless manner by means of an outer, stationary, member and an inner member, rotatably mounted within said outer member, there being a supply of oil within said outer member, said method comprising the steps of
 - forming said members as hollow drums, one telescoped within the other, and both upstanding vertically so that the inner drum rotates on a central vertical axis relative to the outer drum and so that there is a clearance space between drums of only about one eighth of an inch in width,
 - limiting the supply of oil within said outer drum to a predetermined quantity so that it normally occupies only the bottom of the said clearance space and then rotating said inner drum at substantial speed within said outer drum to heat said oil, cause it to rise up into said clearance space and transfer heat to said outer drum.

* * * * *