Nov. 11, 1947. D. W. BRAY 2,430,490

WAX SEAL FOR FLOORS AND PROCESS FOR APPLYING THE SAME

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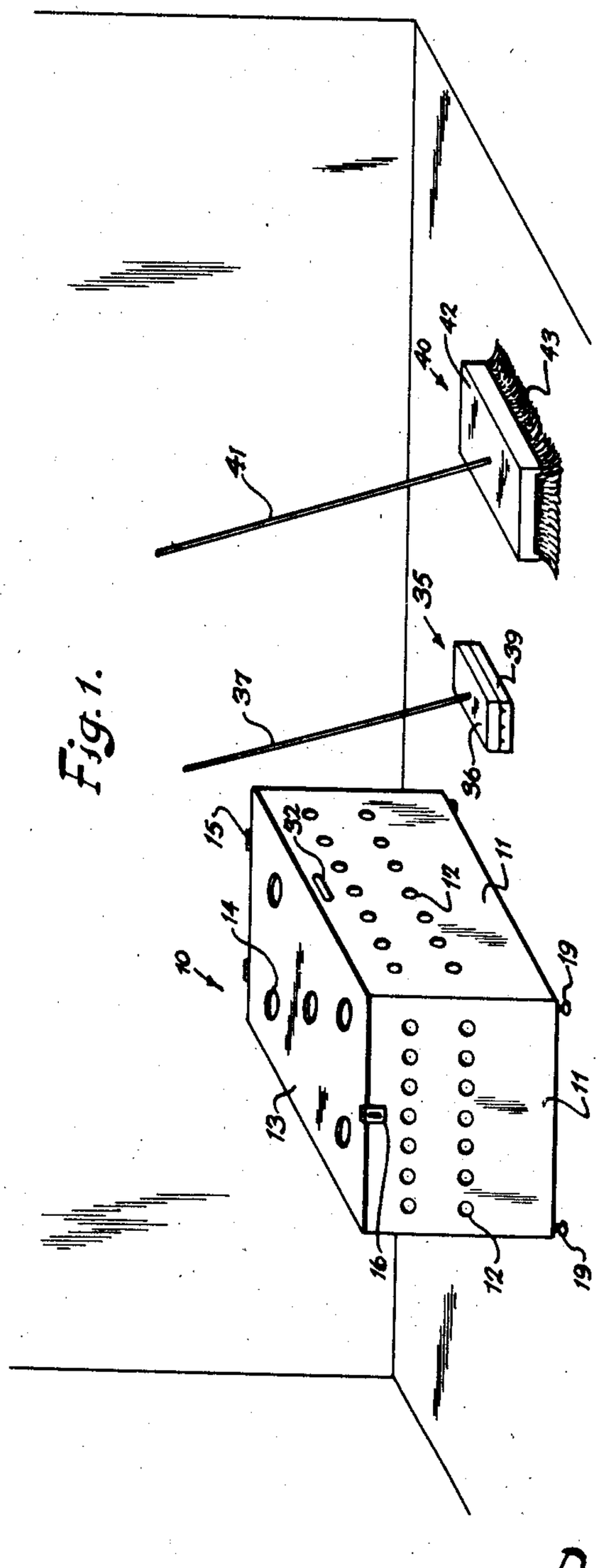

Fig. 1.

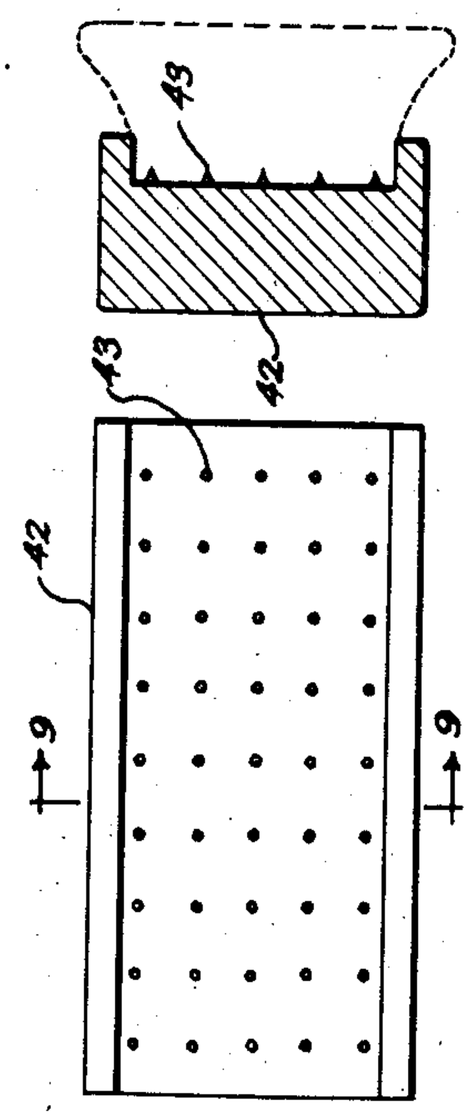

Fig. 8.

Fig. 9.

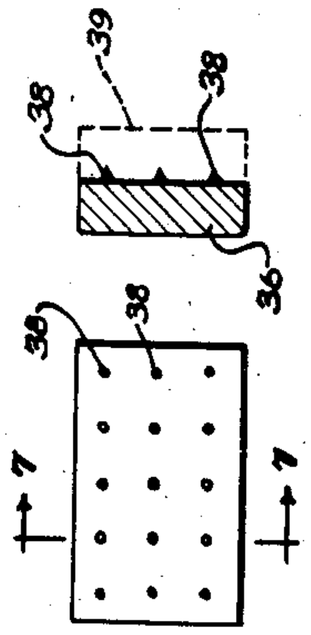

Fig. 6.

Fig. 7.

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WAX SEAL FOR FLOORS AND PROCESS FOR APPLYING THE SAME

Filed March 24, 1945 2 Sheets-Sheet 2

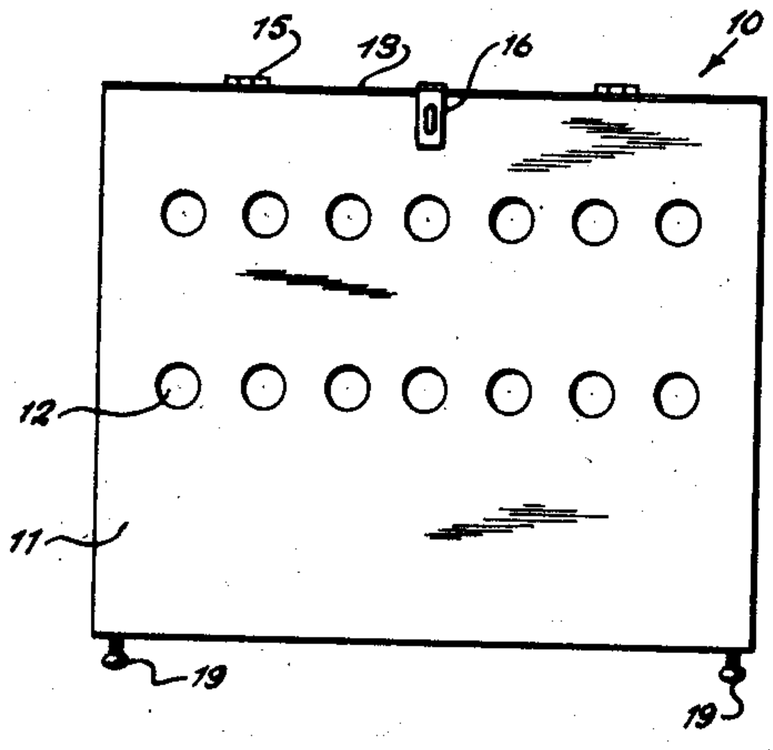

Fig. 2.

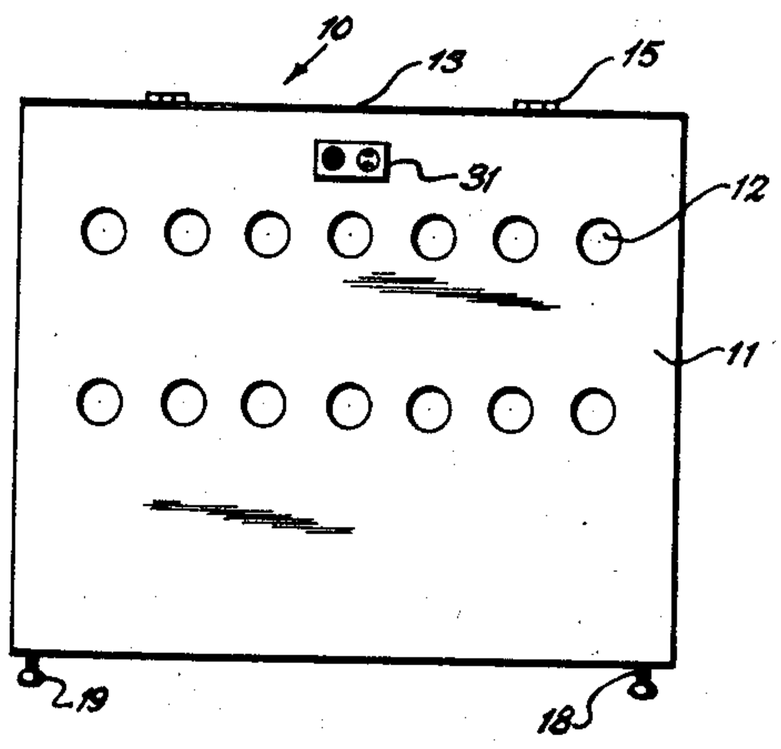

Fig. 3.

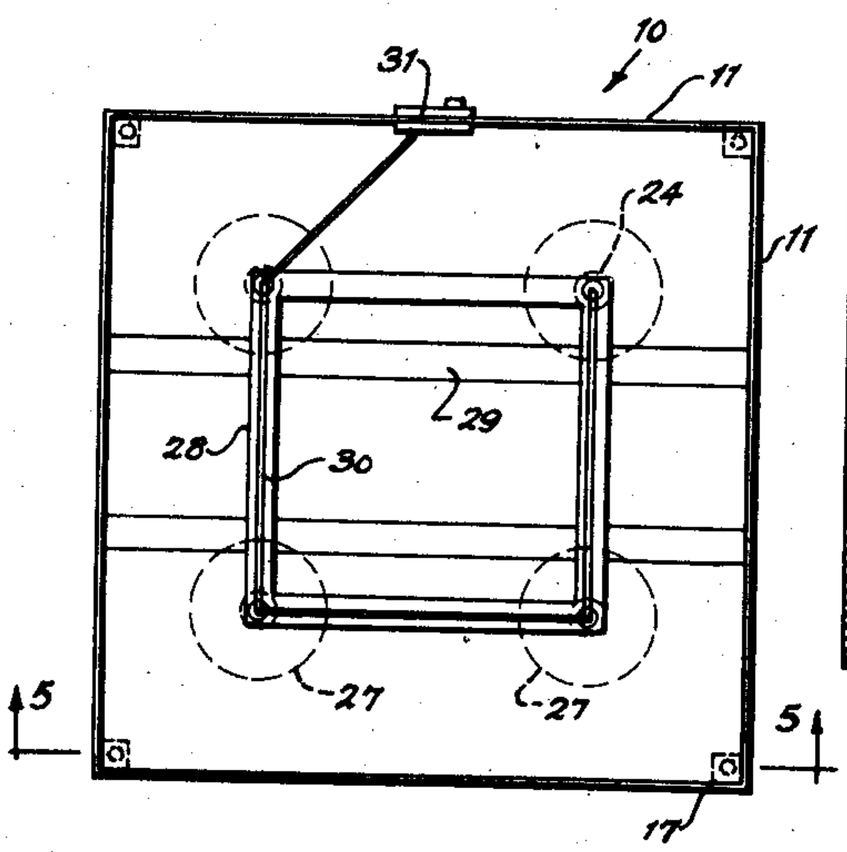

Fig. 4.

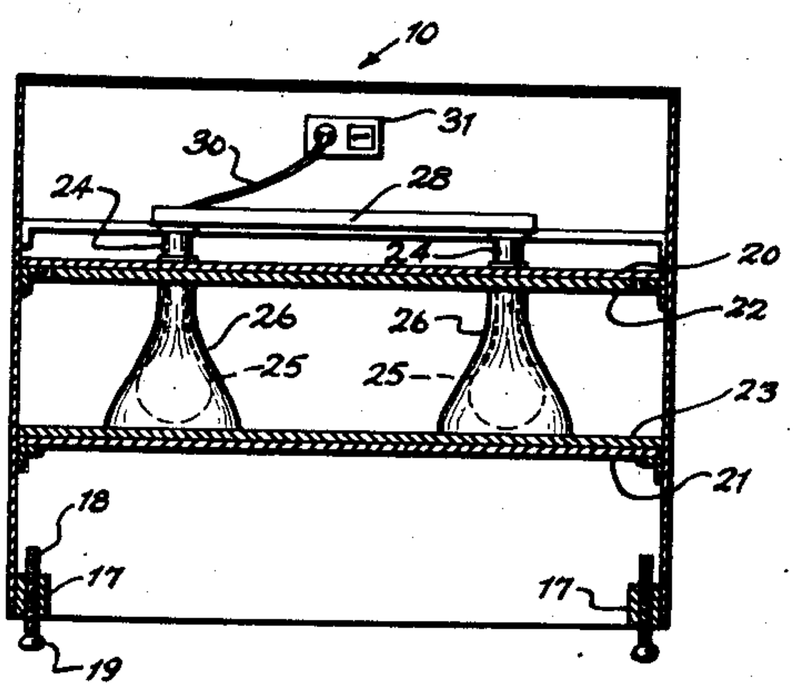

Fig. 5.

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WAX SEAL FOR FLOORS AND PROCESS FOR APPLYING THE SAME

Dwight W. Bray, Eau Claire, Wis.

Application March 24, 1945, Serial No. 584,592

6 Claims. (Cl. 219—45)

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A primary object of this invention is the provision of an improved wax seal for hardwood floors or the like, and a process for applying the same.

An additional object is the provision of such a seal and process adapted to improve the appearance of such a floor.

Still another object is the provision of a seal which, when applied by the process of the instant invention, will be durable, water-repellent, difficult to mar, and relatively simple and easy to clean and maintain in a highly polished condition.

A still further object of the invention is the provision of a process for applying wax to a floor or the like whereby the wax is caused to impregnate the wood of which the floor is composed, to a relatively great depth, in comparison to the ordinary wax finish, in such manner that wear on the floor has relatively little effect on the seal.

Still another object is the provision of means whereby after the wax is applied the entire floor area is covered and sealed in a water-resistant condition.

A still further object is the provision of an improved seal comprised of novel combination of ingredients adapted to be applied by the process of the instant invention.

A further and more specific object resides in the provision of improved apparatus for carrying out the process of the instant invention, including an improved heater and an improved applicator for the wax seal.

Still further objects reside in the steps of the process, the sequence of operation, and the method of carrying out the said steps.

Other objects will in part be obvious and in part be pointed out hereinafter.

In the drawings, wherein there is shown a preferred embodiment of certain apparatus utilized in carrying out the process of the instant invention:

Figure 1 is a fragmentary, semi-diagrammatic view showing a room having a floor and the various articles adapted to be utilized in carrying out the sequence of operation comprising the instant process.

Figure 2 is a front elevational view of a heater adapted to be utilized in the process.

Figure 3 is a rear elevational view of the heater shown in Figure 2.

Figure 4 is a top plan view of the heater showing the cover removed, certain concealed parts being indicated in dotted lines.

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Figure 5 is a sectional view taken substantially along the line 5—5 of Figure 4.

Figure 6 is a bottom plan view of another piece of apparatus used in the process.

Figure 7 is a sectional view taken substantially along the line 7—7 of Figure 6.

Figure 8 is a bottom plan view of still another form of apparatus utilized in carrying out the process of the instant invention, and

Figure 9 is a sectional view taken substantially along the line 9—9 of Figure 8.

Similar reference characters refer to similar parts throughout the several views.

In accordance with the process of the instant invention for wax sealing a hardwood floor, the first step is to thoroughly smooth and sand the floor, preferably finishing off with a fine grade of sandpaper.

After thoroughly sanding and cleaning to remove the dust from the sanded floor, the next step comprises the application of heat to a localized area, preferably starting in a corner of the room or the like. This may be most advantageously achieved by use of a heater generally indicated at 10. Heater 10 is comprised of side and end walls 11 provided with a plurality of ventilating apertures 12 and a cover 13 having ventilating apertures 14 therein hinged, as by hinges 15, and provided with a latch 16. The base of the receptacle so described is open. The heater 10 is adjustably supported a suitable distance above the floor, as by means of apertured lugs 17 positioned in each corner thereof, the apertures being threaded, and threadedly engaging bolts 18 provided with rounded heads 19. Obviously, if desired, rollers may be substituted for the heads 19. As best shown in Figure 5, the heater is provided with two parallel metal plates 20 and 21, spaced at intermediate vertical points in the heater and each having a lining, 22 and 23, respectively, comprised of asbestos or other suitable heat-resistant material, the lining 22 being placed below the plate 20, and the lining 23 above the plate 21. The upper plate 20 and its associated lining 22 are provided with a plurality of spaced apertures adapted to accommodate the sockets 24 of electric bulbs 25, surrounded by reflectors 26. Suitable apertures 27, as indicated in dotted lines in Figure 4, of a diameter of the base of the reflectors 26, are cut through the liner 23 and the plate 21 to permit the heat from the lamps 25 to pass therethrough and strike the floor.

A suitable supporting frame 28 carried by transverse bars 29 is adapted to support the upper portions of the sockets 24. A suitable wire 30 extends

about the frame 28 and continues to a plug 31, the outer face of which is exterior of its associated wall 11.

The bulbs 25 may be of any suitable wattage, ranging from 100 to 1,000 watts, and may, if desired, be of the infra-red variety.

As best shown in Figure 1, certain of the side walls 11 may be provided with slotted apertures 32 to provide hand grips to facilitate moving the heater as desired.

The heater is preferably allowed to remain in one spot for a suitable length of time, normally a period of minutes, until the wood floor positioned beneath the bulb 25 has been heated to a temperature of 150 to 200 degrees F.

After a section of the floor has been heated to the desired degree, the heater is moved to a portion immediately adjacent the heated portion and the wax seal is applied to the heated portion rapidly before the temperature has a chance to subside. This sealing is effected by means of an applicator generally indicated at 35 comprised of a block 36 having a handle 37 and a series of points 38 (see Figs. 6 and 7) on the lower surface thereof, upon which is adapted to be impaled a cake 39 of the wax comprising the sealing material of the instant process.

Referring to the wax seal in detail, the principal ingredient thereof is paraffin wax to which may be added a small amount of beeswax, carnauba wax, and a suitable floor polish. As an example of various formulae which may be suitably utilized, a combination comprising

	Ounces
Paraffin wax	15
Beeswax	⅓
Carnauba wax	⅓
Floor polish	⅓
	16

has been found advantageous. Of course, the proportions may be varied as desired within the approximate limits set out, and one or more of the latter three ingredients may be omitted if for any reason it is found to be desirable.

In preparing the wax seal cake, the various ingredients are melted together, mixed well, and poured into molds to cool. Square or oblong molds, preferably of dimensions substantially identical to that of the block 36, are customarily used.

The process above described is repeated from spot to spot until the entire floor has been coated with wax and sealed.

After the floor has been waxed, it may be polished with a steel wool mop, such, for example, as is generally indicated at 40, comprised of a handle 41, a base block 42 and steel wool bristles or strands 43. As best shown in Figure 8, the mop 40 may have a grooved base 42 provided with a plurality of points or perforations 43 adapted to engage in the strands of the steel wool mop, or alternatively in a suitable block in which the strands are embedded.

Under certain conditions and in certain localities, as for example, in doorways and similar places where heavy wear is expected, it is preferred that the temperature to which the floor is initially heated be raised to a point above the aforementioned 200 degrees F. This may be readily achieved by allowing the heater to stand a little longer in the desired spot. Under such conditions, it is desirable to use a heavier application of the wax block, for as long as the wood

stays in a highly heated condition, the wax will remain molten and penetrate deeper into the wood. As the wax so applied cools, it hardens leaving the treated floor with an effective and lasting finish.

Floors so treated may be kept clean without the necessity of mopping or scrubbing. For example, one method, perhaps the simplest, of cleaning floors is to rub dirty spots, rubber heel marks, or the like with the steel wool mop 40 and then sweep. A light spray of suitable floor polish may then be applied and wiped dry with a clean cloth.

If desired on large floors, clean sawdust may be applied after the oil cleaner, which, when swept up, removes the sawdust and all excess oil.

Now, from the foregoing, it will be seen that there is herein provided an improved wax seal for hardwood floors, an improved process for applying the same, and improved apparatus for carrying out the process.

It will also be seen that there is herein provided a method and structure accomplishing all the objects of this invention and others including many advantages of great practical utility and commercial importance.

While in the foregoing this invention has been described in connection with hardwood floors particularly, it will be obvious to those skilled in the art that the process may be utilized with equal advantage on any type of wood floor, as well as concrete or similar types of floors.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. A heater for treating floors comprising a metallic receptacle open at its bottom, upper and lower spaced transverse horizontal partitions in said receptacle defining upper, lower and middle chambers therein, alined apertures in said partitions, a plurality of electric heat radiating means in the middle chamber, said means being alined with said apertures in said lower partition and extending through said apertures in said upper partition, electric sockets mounted in said upper chamber and connected with said means, said lower chamber comprising an oven for heating a floor, said middle chamber receiving said means and said upper chamber housing said electric sockets.

2. A heater for treating floors comprising a metallic receptacle open at its bottom, upper and lower spaced transverse horizontal partitions in said receptacle defining upper, lower and middle chambers therein, alined apertures in said partitions, a plurality of electric heat radiating means in the middle chamber, said means being alined with said apertures in said lower partition and extending through said apertures in said upper partition, electric sockets mounted in said upper chamber and connected with said means, said lower chamber comprising an oven for heating a floor, said middle chamber receiving said means and said upper chamber housing said electric sockets, said partitions being lined on adjacent surfaces with heat insulating material and a plurality of cooling apertures in the walls thereof.

3. A heater for treating floors comprising a metallic receptacle open at its bottom, upper and lower spaced transverse horizontal partitions in said receptacle defining upper, lower and middle

chambers therein, alined apertures in said partitions, a plurality of electric heat radiating means in the middle chamber, said means being alined with said apertures in said lower partition and extending through said apertures in said upper partition, electric sockets mounted in said upper chamber and connected with said means, said lower chamber comprising an oven for heating a floor, said middle chamber receiving said means and said upper chamber housing said electric sockets, said partitions being lined on adjacent surfaces with heat insulating material and a plurality of cooling apertures in the walls thereof, said reecptacles having adjustable legs supporting the same above a floor.

4. A heater for treating floors comprising a metallic receptacle open at its bottom, upper and lower spaced transverse horizontal partitions in said receptacle defining upper, lower and middle chambers therein, alined apertures in said partitions, a plurality of electric heat radiating means in the middle chamber, said means being alined with said apertures in said lower partition and extending through said apertures in said upper partition, electric sockets mounted in said upper chamber and connected with said means, said lower chamber comprising an oven for heating a floor, said middle chamber receiving said means and said upper chamber housing said electric sockets, said partitions being lined on adjacent surfaces with heat insulating material and a plurality of cooling apertures in the walls thereof, and a plurality of cooling apertures in the sides and top of said upper chamber.

5. A heater for treating floors comprising a metallic receptacle open at its bottom, upper and lower spaced transverse horizontal partitions in said receptacle defining upper, lower and middle chambers therein, alined apertures in said partitions, a plurality of electric heat radiating means in the middle chamber, said means being alined with said apertures in said lower partition and extending through said apertures in said upper partition, electric sockets mounted in said upper chamber and connected with said means, said lower chamber comprising an oven for heating a floor, said middle chamber receiving said means and said upper chamber housing said electric sockets, said heating means consisting of electric bulbs, a conical reflector surrounding each bulb with its open end registering with an aperture in said lower portion and with its upper end in registry with said alined aperture in said upper partition.

6. A heater for treating floors comprising a metallic receptacle open at its bottom, upper and lower spaced transverse horizontal partitions in said receptacle defining upper, lower and middle chambers therein, alined apertures in said partitions, a plurality of electric heat radiating means in the middle chamber, said means being alined with said apertures in said lower partition and extending through said apertures in said upper partition, electric sockets mounted in said upper chamber and connected with said means, said lower chamber comprising an oven for heating a floor, said middle chamber receiving said means and said upper chamber housing said eletcric sockets, said heating means consisting of electric bulbs, a conical reflector surrounding each bulb with its open end registering with an aperture in said lower portion and with its upper end in registry with said alined aperture in said upper partition, and heat insulating means in said middle chamber to minimize the transfer of heat to said upper chamber and air cooling means opening into said middle chamber.

DWIGHT W. BRAY.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
100,649	Mason	Mar. 8, 1870
613,750	Bowdlear	Nov. 8, 1898
1,399,838	Abbey	Dec. 13, 1921
1,617,925	O'Neill	Feb. 15, 1927
2,387,804	Miskella	Oct. 30, 1945
1,723,331	Cutler	Aug. 6, 1929
1,703,993	Denton	Mar. 5, 1929
1,294,269	Hopkins	Feb. 11, 1919

FOREIGN PATENTS

Number	Country	Date
368,331	Great Britain	Mar. 1, 1932
317,196	Italy	Apr. 27, 1934