March 14, 1939. H. CORY 2,150,492

ELECTRIC STOVE

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Fig. 1

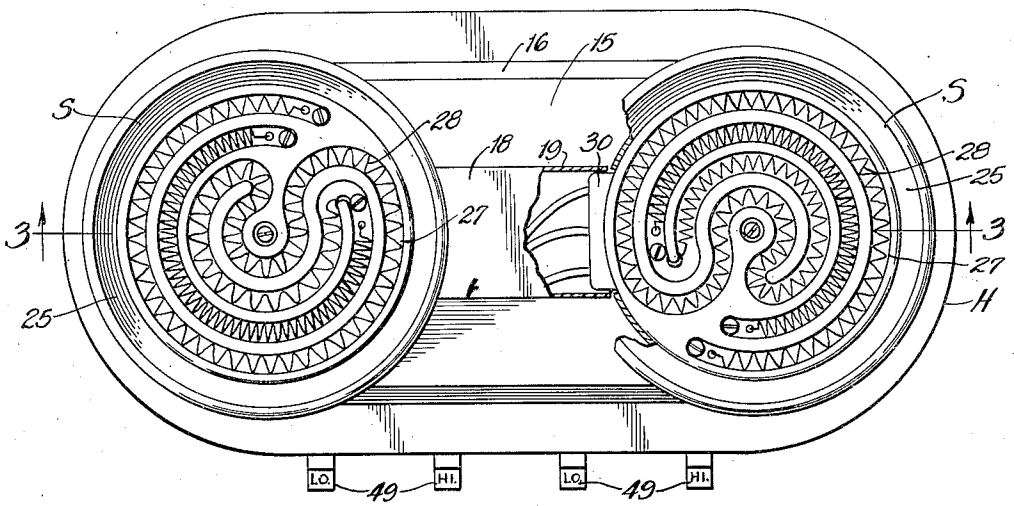

Fig. 2

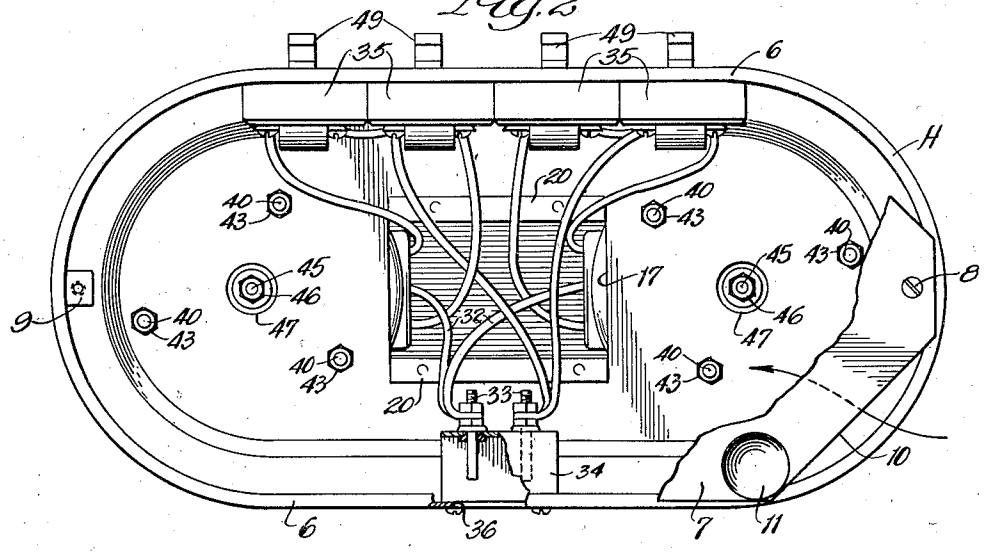

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Fig. 3

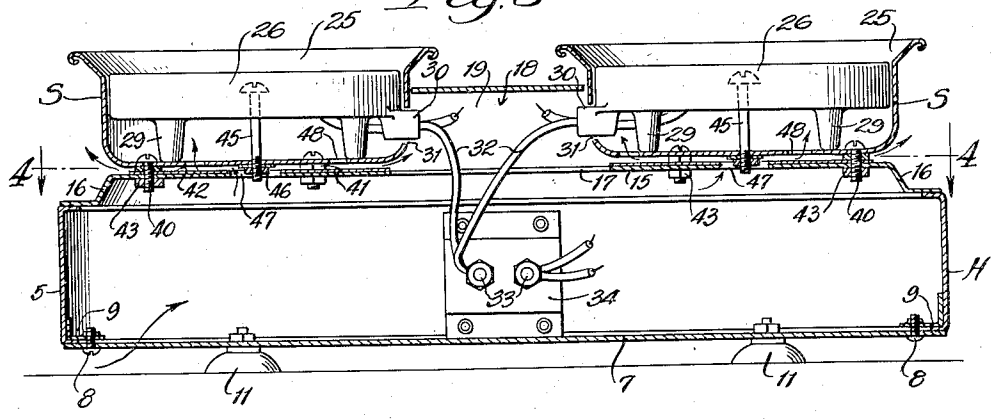
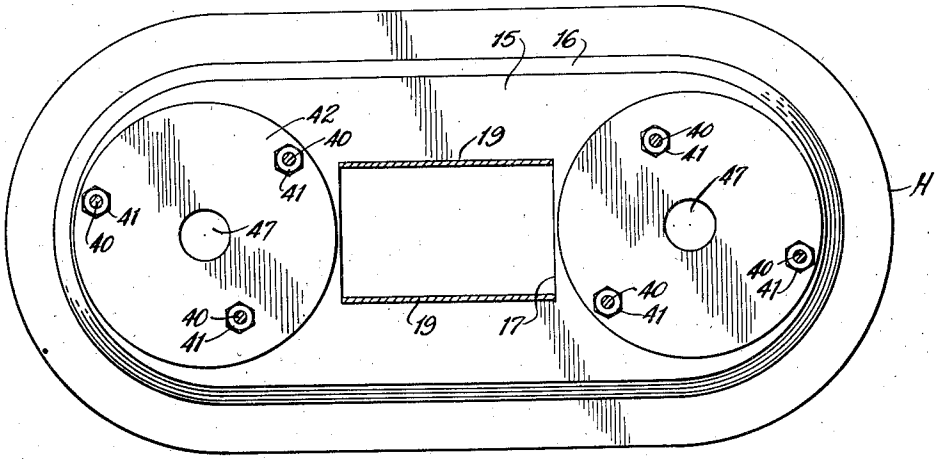


Fig. 4



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UNITED STATES PATENT OFFICE

2,150,492

ELECTRIC STOVE

Harvey Cory, Chicago, Ill.

Application August 29, 1936, Serial No. 98,533

2 Claims. (Cl. 219—37)

This invention relates to an electric stove especially adapted for cooking or other like purposes. The present improvements have to do with certain features of construction by which the cost of the stove is reduced, its durability is enhanced, and the operation of its switches is facilitated. These general advantages result from the use of a chambered base wherein is contained the electrical connections including the control switches, the heating element being so mounted on top of the base as to obviate transfer of heat into the chamber therewithin.

A suggestive embodiment of my invention is set forth in the accompanying drawings, wherein—

Figure 1 is a top plan view of a two-burner stove, a portion of one shell and of the connecting tunnel wall being broken away to exhibit the brick terminal block;

Fig. 2 is a bottom plan view with most of the bottom plate broken away to exhibit the arrangement of parts interiorly of the base;

Fig. 3 is a longitudinal section on line 3—3 of Fig. 1; and

Fig. 4 is a horizontal section on line 4—4 of Fig. 3.

The present stove assembly comprises a chambered base in the form of a housing H having peripheral walls 5 which, as shown, are parallel on the front and rear and rounded at the two ends. The contour of the base may vary according to the number of burners associated therewith. Around the lower edge of the housing is a narrow inturned flange 6 against which may be rested a bottom plate 7 removably secured in place as by screws 8 passing therethrough to engage with clip-lugs 9 that are supported upon the base walls. The housing and its bottom plate may be produced conveniently and economically from sheet metal. To promote ventilation it is preferred that the bottom plate be apertured or trimmed off at the corners, as shown at 10 in Fig. 2, whereby to provide air openings of ample size. Support for the stove may be furnished by feet 11, desirably in the form of rubber vacuum cups mounted upon the under side of the bottom plate, these cups having capacity to flex and thereby exclude air when fitted upon a smooth surface so as to engage non-skiddingly therewith.

The base top 15, which is flat, may be surrounded by an inset wall 16 which follows closely the contour of the peripheral wall of the housing. In the multiple-burner stove shown, the base top is centrally apertured as at 17, an open-ended tunnel 18 providing a cover over such opening. The tunnel sides 19 along their lower portions may be outturned to provide flanges 20 which underlie the base top to which they are secured as by spot welds.

The tunnel which extends lengthwise of the stove faces at each end a cupped shell S which may desirably be made of aluminum. The peripheral walls of each shell are outwardly flared as at 25 adjacent their upper edges, and within each shell is fitted a burner comprising a brick 26 of refractory material having a series of upwardly facing recesses or chanels 27 in each of which is positioned a heating element 28. Depending from the brick are a plurality of feet 29 adapted to rest upon the bottom of the shell, thereby to support the brick in an elevated position therewithin. Each brick is formed with a terminal block 30 extending laterally through an opening 31 in the peripheral walls of the shell and into the proximate end of the tunnel. Electrical connections 32 from the heating elements extend through the terminal block and down through the top aperture 17 to connect with posts 33 which are carried upon a U-shaped bracket plate 34 affixed to the peripheral wall of the base upon the rear side thereof, also to switches 35 which are supported upon the peripheral wall of the base along the front side thereof. The two posts 33 lie opposite an opening 36 in the rear wall of the base, permitting insertion therethrough of an attaching plug for establishing electrical connections between the posts and a source of electrical energy.

Each shell may be affixed to the base top with the aid of a plurality of bolts 40 having spacer nuts 41 interposed between the shell bottom and a reflector plate 42 which lies upon the upper face of the base top. By the application of nuts 43 to the bolts, the shells may be securely tightened in position upon the base. To fixedly secure each brick in the shell, I may utilize a bolt 45 which extends centrally through the brick and downwardly through an opening in the bottom of the shell, a nut 46 which is affixed to the bolt bearing against the under side of the shell. In order that this nut may be manipulated, an opening 47 is provided adjacent thereto through the reflector plate and base top.

In the construction described there is ample provision for ventilation, the air entering around the bottom plate and through the rear opening 36 to pass through the base chamber and thence upwardly into the tunnel from which it escapes around the ends thereof. Heat developed within

the bricks is prevented from traveling downwardly, due in part to the circulation of air below the shell, and to the heat reflecting plate which is desirably bright-finished for greater efficiency. Each shell may be provided in its bottom with ventilating openings 48 for promoting the circulation of air. In service the base will remain relatively cool, little of the heat reaching the switches whose operating controls 49 extend through openings in the front wall of the base for convenient manipulation. At no time will it be found difficult or uncomfortable to operate these switches, because of heat which is generated in the bricks. The relative coolness which prevails in the base chamber prevents destructive or deteriorating forces from attacking the switches, the wiring connections, etc., so that a prolonged life of the stove is assured. In addition the vacuum feet which depend from the bottom plate are maintained relatively cool, with a resulting slow rate of deterioration. Such feet are enabled to engage tightly with a smooth, polished table surface, such as of vitreous ware, thereby holding the stove fixedly against movement.

I claim:

1. An electric stove comprising a chambered base having an apertured top, an open-ended tunnel mounted over the top aperture, a pair of shells mounted on the base top one adjacent each end of the tunnel, there being a slot through the peripheral wall of each shell affording a communicating passage into the tunnel, a recessed brick fitted within each shell having a terminal block disposed within its slot and the proximate tunnel end, a heating element in the recess of each brick, and electrical connections from the heating elements passing through the terminal blocks into the chambered base.

2. An electric stove comprising a chambered base having an apertured top, a cupped shell having a side opening supported on the base top in spaced relation thereto, an open-ended tunnel over the top aperture having one end adjacent the side opening of the shell and communicating with the interior thereof, a recessed brick fitted within the shell, a heating element in the brick recess, a terminal block proceeding laterally from the brick through the side opening of the shell into the proximate tunnel end, electrical connections from the heating element passing through the terminal block into the base chamber, a switch to which the connections are attached having a mounting interiorly of the base adjacent an opening to the exterior thereof, and operating means for the switch extended therefrom through the base opening to the exterior thereof.

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