

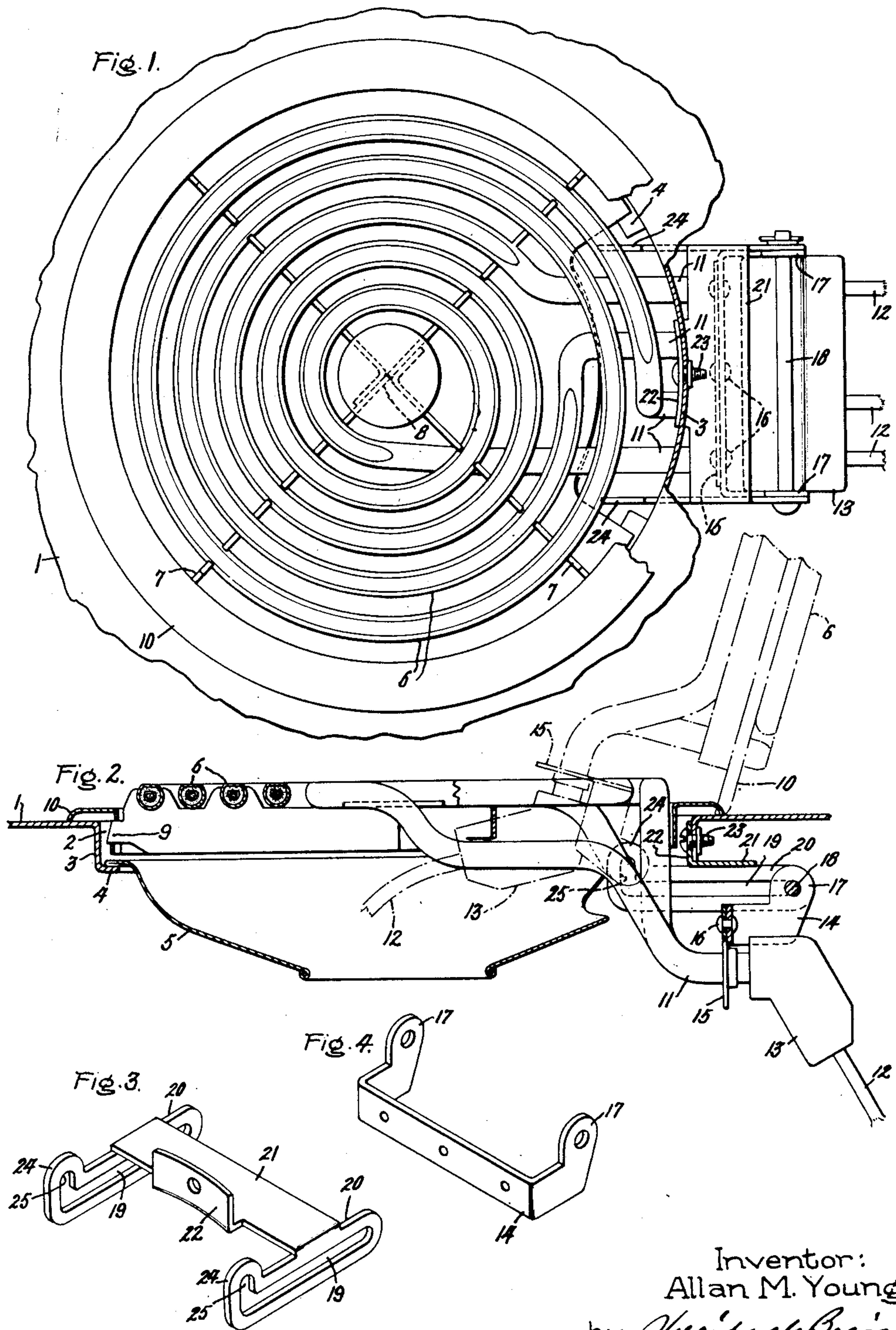
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SURFACE UNIT TILTING MEANS

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SURFACE UNIT TILTING MEANS

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The present invention relates to electric ranges and particularly to an improved construction and arrangement for hinging a surface cooking unit in an electric range whereby it may be quickly and readily lifted out of the opening in the range top in which it is positioned and swung to a position away from such opening to permit of cleaning under the unit.

According to my invention I provide beneath the range top adjacent to the surface cooking unit opening walls which define guide slot means and I support the rear end of the surface cooking unit on means positioned in said slot means, the arrangement being such that the front end of the unit may be lifted slightly and the unit then slid forward and pivoted to a position out of line with the surface unit opening, the unit being supported in a tilted back position with its rear edge resting on the top plate of the range.

In the drawing, Fig. 1 is a top plan view with parts broken away of a portion of a range having a hinged surface unit embodying my invention; Fig. 2 is a sectional view of the structure shown in Fig. 1, and Figs. 3 and 4 are detail perspective views of certain parts.

Referring to the drawing, 1 indicates the top plate of an electric range and 2 an opening therein for a range surface unit. Opening 2 is defined by a downwardly projecting wall 3 having an inturned flange 4 at its lower edge for supporting a drip pan 5. The range surface unit may be of any suitable construction. It is shown as comprising spiral turns of sheathed wire 6 of known construction supported by spiders 7 attached together at their inner ends as shown at 8, their outer ends 9 being supported in openings in a trim ring 10. The periphery of trim ring 10 rests on top plate 1 as shown clearly in Fig. 2. The terminal ends 11 of the sheathed wire extend downwardly and to the rear of the rear edge of opening 2 and are connected to electric supply leads 12 by means of a terminal block 13.

The structure so far described is a known one and is to be taken as typical of any suitable range and surface cooking unit structure. My invention has to do with hinge means for supporting the cooking unit on the range top plate.

According to the embodiment of my invention illustrated in the drawing, a hinge bracket 14 (Fig. 4) is attached to terminals 11 by a plate 15 to which it is fastened by rivets 16, the plate 15 being suitably fastened to the sheaths of terminals 11. Bracket 14 has a pair of spaced upstanding ears 17 having openings to receive

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a hinge pin 18. Hinge pin 18 is supported in slots 19 in a pair of spaced arms 20 connected by a cross bar 21. Arms 20 and cross bar 21 form a hinge bracket which is attached to top plate flange 3 at the rear of opening 2 by means of an ear 22 on bar 21 and a bolt 23. Arms 20 extend from a point somewhat to the rear of opening 2 to a point within the confines of the opening and at their forward ends are provided with upwardly extending projections 24 in which the forward ends 25 of slots 19 terminate. Slots 19 extend throughout the lengths of arms 20 and each comprises a horizontal portion at the forward end of which is the vertically extending portion 25.

Normally the parts stand in the positions shown in full lines in Fig. 2, the cooking unit being supported on top plate 1 through the intermediary of trim ring 10 and hinge pin 18 being at the rear end of slot 19. When it is desired to clean beneath the cooking unit or to remove pan 5, the front end of the cooking unit is raised to bring the front end portion of trim rim 5 above top plate 11, the rear end of the cooking unit pivoting on pin 18. The cooking unit may be then pulled forward, pin 18 sliding in slots 19 until pin 18 reaches the forward ends of the slots after which the unit may be turned to the position shown in dotted lines in Fig. 2 in which position hinge pin 18 rests in end portion 25 of the slots and the rear portion of the trim ring rests on top plate 1. In this position it will be seen that the cooking unit has moved beyond the vertical so its weight serves to hold hinge pin 18 up in slot end portion 25. Also in this position the cooking unit is quite out of opening 2 so that parts within and beneath the opening can be reached readily for cleaning and if desired pan 5 may be removed for cleaning.

The cooking unit may be quickly and easily moved back to its normal position by pivoting it forward during which movement hinge pin 18 will drop down out of slot ends 25 and then sliding it rearwardly until pin 18 reaches the rear ends of slots 19 when the unit can be again placed down to its normal position.

My improved construction has the advantages that it is simple in structure, easy to operate, not likely to get out of order and capable of being manufactured at low cost; and when in up ended position it remains there due to its being positioned beyond the vertical and gives full access to parts beneath the cooking unit.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In an electric range, a top plate having an

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opening, a cooking unit positioned in the opening, means forming a part of the cooking unit which rests on the top plate for supporting the cooking unit in said opening, and means pivotally connecting the cooking unit to the top plate comprising a hinge bracket fixed to the rear of the cooking unit, a hinge bracket fixed to the top plate at the rear edge of said opening, and means pivotally connecting said hinge brackets comprising pivot pin means on one of said brackets, the other bracket having slot means in which said pivot pin means is positioned, said slot means including a generally horizontal portion and a generally vertical portion at one end of said horizontal portion and said portions having lengths sufficient to permit the front end of said cooking unit to be raised from said opening and the unit slid forward and turned on said pivot pin means and so that when said pin means is located at the upper extremity of the vertical portion of said slot the cooking unit may be tilted to a position beyond the vertical with its rear edge resting on said top plate at the rear of said opening.

2. In an electric range, a top plate having an opening, a cooking unit positioned in the opening, means forming a part of the cooking unit which rests on the top plate for supporting the cooking unit in said opening, and means pivotally connecting the cooking unit to the top plate comprising a hinge bracket fixed to and under the top plate at the rear edge of said opening having slot means which extends laterally from a point beyond the rear edge of said opening to a point within the confines of the rear portion of said opening where said slot means extends upwardly with respect to the laterally extending portion, a hinge bracket fixed to the rear of the cooking unit, and a pivot pin means on such bracket positioned in said slot means, said slot means being of a length sufficient to permit of the front end of said cooking unit being raised from said opening and the unit slid forward and turned on said pivot pin means and the latter

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when in the upper end of the upwardly extending portion of said slot means providing for movement of the cooking unit to a position beyond the vertical with its rear edge resting on said top plate at the rear of said opening.

3. In an electric range, a top plate having an opening, a cooking unit positioned in said opening comprising turns of sheathed wire the terminal ends of which terminate beneath the top plate to the rear of the rear edge of said opening, a hinge bracket fixed to said top plate at the rear edge of said opening comprising a pair of arms which extend from a point beyond the rear edge of said opening to a point within the confines of the rear portion of said opening, each of said arms having a slot extending from the rear end thereof to the front end, the slots at such front ends terminating in upwardly projecting portions formed in upwardly projecting portions of said arms, and a hinge bracket fixed to said terminal ends having pivot pin means positioned in said slots and slidable therealong, said slots being of a length such that the front edge of the cooking unit may be lifted above said opening and the unit slid forward and then turned on said pivot pin means to bring the unit beyond the vertical with its rear edge resting on said top plate and the pivot pin means positioned in the upwardly projecting portions of said slots.

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