

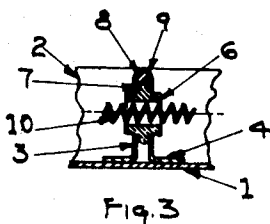
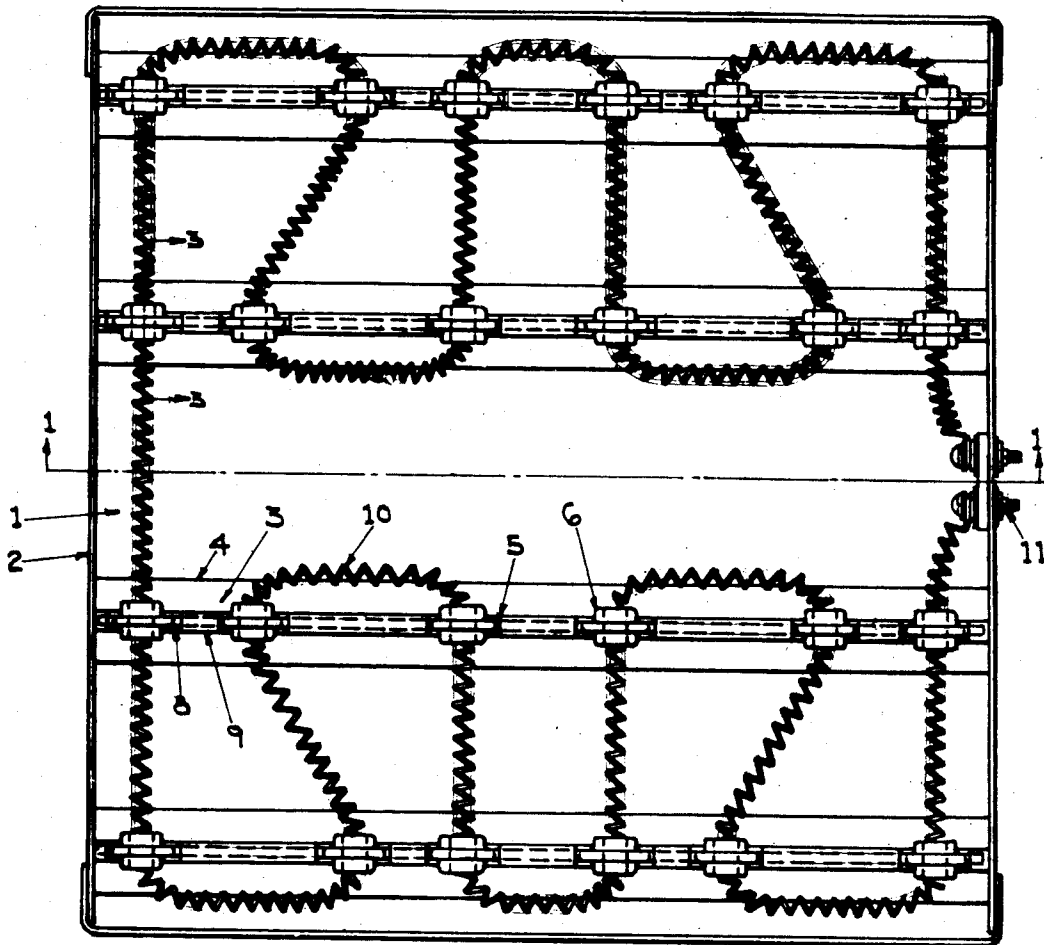
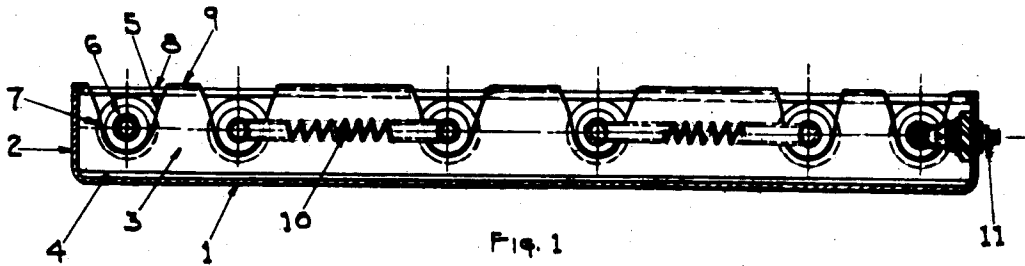
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ELECTRIC HEATER

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ELECTRIC HEATER

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3 Claims. (Cl. 219—37)

The present invention is designed to improve electric hot plates, particularly hot plates which may be used upon their upper surface for conducting heat to an article supported thereon and which on their under-surface may be used to directly radiate the heat to an article below the plate. Such plates may be used in ovens and in such uses ease of assembly and cheapness of construction are of very great importance. In the present invention, the heating element may be supported in a very economical way and the assembly of the parts be expeditiously accomplished with a very secure assembly when accomplished. Features and details of the invention will appear from the specification and claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing as follows:—

Fig. 1 shows a vertical section through the plate on the line 1—1 in Fig. 2.

Fig. 2 a plan view of the bottom of the plate.

Fig. 3 a section on the line 3—3 in Fig. 2.

1 marks the plate and 2 a depending skirt, or flange extending around the plate.

Metal strips 3 extend across and are secured to the under-side of the plate. Preferably these strips are folded strips having outwardly extending flanges 4 at the open edge. These flanges are preferably secured to the plate by spot welding. The folded edge of the plate has a series of notches 5.

Insulating sleeves, or tubes 6 ordinarily formed of porcelain are seated in the notches. These tubes have shoulders 7 which are arranged between the walls of the folded metal strip and thus lock the strip against end movement out of engagement with the strip.

With the tubes seated in the strip a wire 8 is inserted along the fold 9 of the metal strip, the wire bridging the notches and locking the sleeves in the notches. This forms a very convenient

locking device, one that can be very readily inserted and one that very definitely secures the tubes in place when inserted.

An electric heating element 10 is threaded through the tubes in a circuitous path back and forth through the sleeves on adjacent plates, thus covering with fair uniformity the entire surface of the plate. The elements terminate in electric terminals 11 arranged in the skirt, or flange along one side of the plate.

What I claim as new is:—

1. In an electric heater, the combination of a plate; supporting metal strips secured to the plate, said strips being folded and having the open edges of the strips secured to the plate, the folded edges of the strips being provided with notches; insulating blocks arranged in the notches; a wire extending within and along the fold of the metal strips and locking the blocks in the notches; and a heating element extending from block to block and secured in the blocks.

2. In an electric heater, the combination of a plate; supporting metal strips, said strips being folded and having flanges along the open edges, the folded edges of the strips being provided with notches and the flanges of the strips being secured to the plate; insulating blocks seated in the notches, said blocks having shoulders arranged between the walls of the strip; a wire extending within and along the folds locking the blocks in the notches; and a heating element extending from block to block and secured in the blocks.

3. In an electric heater, the combination of a supporting metal strip, said strip being folded longitudinally of the strip, the folded edge of the strip being provided with a series of notches; insulating blocks arranged in the notches; a wire extending within and along the fold locking the blocks in the notches; and a heating element secured in said blocks.

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