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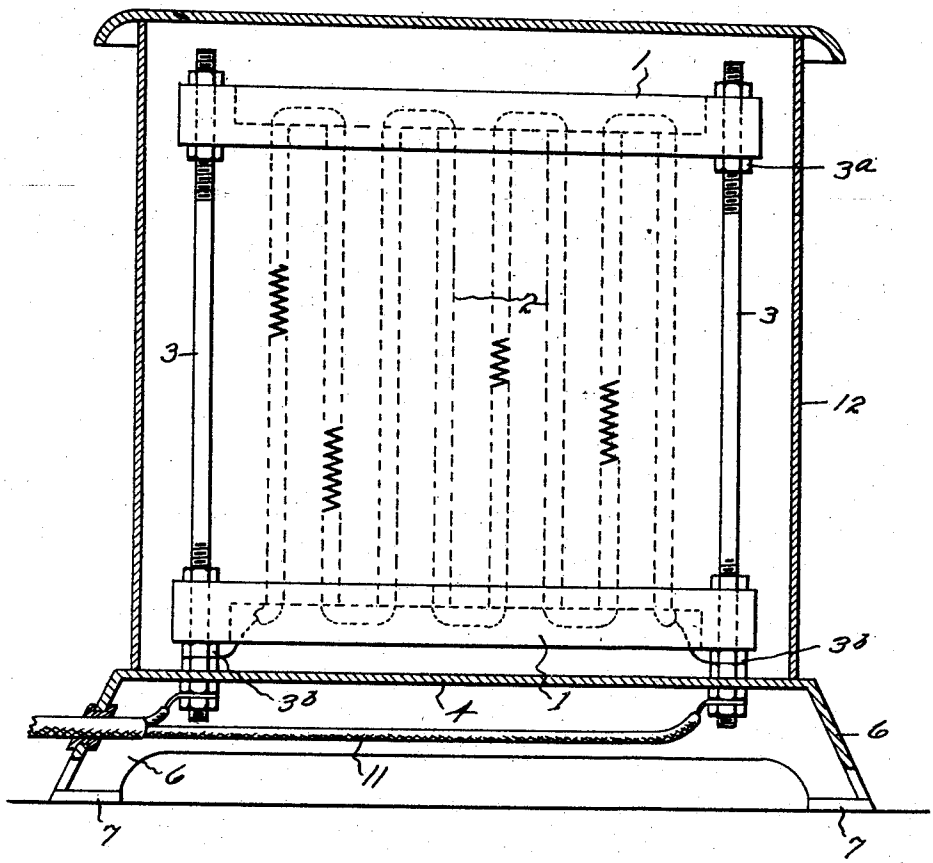
ELECTRIC HEATER.

APPLICATION FILED FEB. 1, 1921.

1,417,073.

Patented May 23, 1922.

Fig. 1



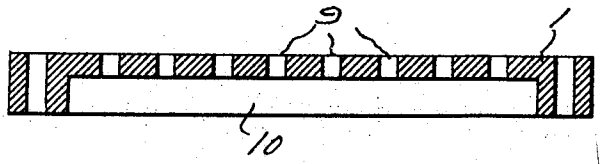




Fig. 2

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# UNITED STATES PATENT OFFICE.

HENRY KRUESHELD, OF NEW WASHINGTON, OHIO, ASSIGNOR TO THE PERFECTION ELECTRIC PRODUCTS CO., OF NEW WASHINGTON, OHIO, A CORPORATION OF OHIO.

## ELECTRIC HEATER.

1,417,073. Specification of Letters Patent. **Patented May 23, 1922.**

Application filed February 1, 1921. Serial No. 441,525.

*To all whom it may concern:*

Be it known that I, HENRY KRUESHELD, a citizen of the United States, residing at New Washington, in the county of Crawford and State of Ohio, have invented certain new and useful Improvements in Electric Heaters, of which the following is a specification.

This invention relates to electric heaters, and has for its particular object to provide a simple and improved form of heating element, the same comprising a coil which is supported between two bars of insulating material, these bars being mounted on a pair of screw rods which can be adjusted to tension the coil and also to attach the element of a base or the like. Although shown and illustrated in connection with a stand or upright heater, the element may be used in a horizontal position, or on other types of electric heating devices, the main feature of novelty comprising the particular structure of the element itself.

In the accompanying drawings Fig. 1, is a side elevation of the heating resistance element, showing the element applied to a stand heater, the heater being in section. Fig. 2 is a longitudinal section of one of the insulating bars.

Referring specifically to the drawings, 1 indicates the bars between which the heater coil 2 is extended in zig-zag relation, the coil passing through holes 9 communicating with a groove 10 in each bar. After the coil is set in place this groove or channel may be filled with cement to hold the coil in position. The bars are mounted at their ends on a pair of threaded rods 3 which receive nuts $3^a$ between which the bars are clamped, and obviously by adjusting the nuts the bars can be forced away from each other to increase or adjust the tension on the coils 2 so as to support the latter in proper position. The terminals of the coils are attached to the ends of the rods 3, where they may be fastened by nuts $3^b$.

Fig. 1 shows one manner of use of the element for a stand heater or the like, the element being mounted on a base 4 by inserting the ends of the rods 3 through holes in the top of the base and clamping the same by nuts thereunder, the cord terminals 11 being attached to the lower ends of the rods. The legs 6 of the base may be provided with fibre feet 7 for insulation, and a casing 12 may enclose the heating element.

The construction described is very cheap and easily assembled, and provides an element which can be used for various purposes and which can be quickly and easily applied to the articles, examples of such articles being stand heaters, toasters and various other heating appliances familiar to those acquainted with the art.

I claim:

1. A heating element comprising a pair of bars, a coil extending between the bars, and spacing rods separating the bars, and adapted to tension the coil, the ends of the rods being extended beyond one of the bars and serving to rigidly attach the element to a support.

2. An electric heater comprising a support having holes therein, a pair of bars of insulating material, a coil extending back and forth between the bars, and spacing rods extending between the bars, the ends of the rods extending through the holes and being clamped to the support and provided with means for attachment of cord terminals thereto.

In testimony whereof, I do affix my signature in presence of two witnesses.

HENRY KRUESHELD.

Witnesses:
R. C. ALT,
F. H. SPILLETTE.