

J. J. NOLAN.
RESISTANCE ELEMENT.
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1,038,422.

Patented Sept. 10, 1912.

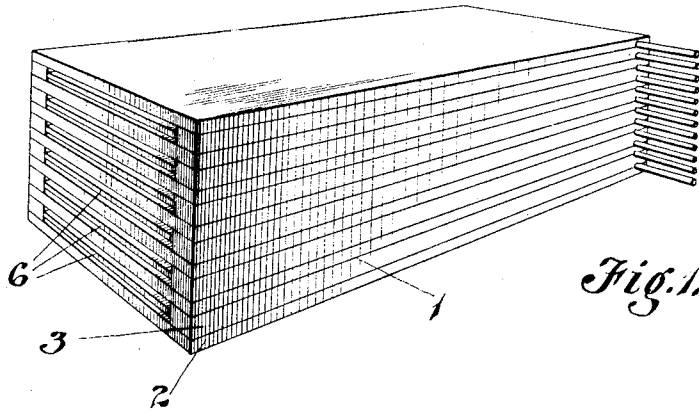


Fig. 1.

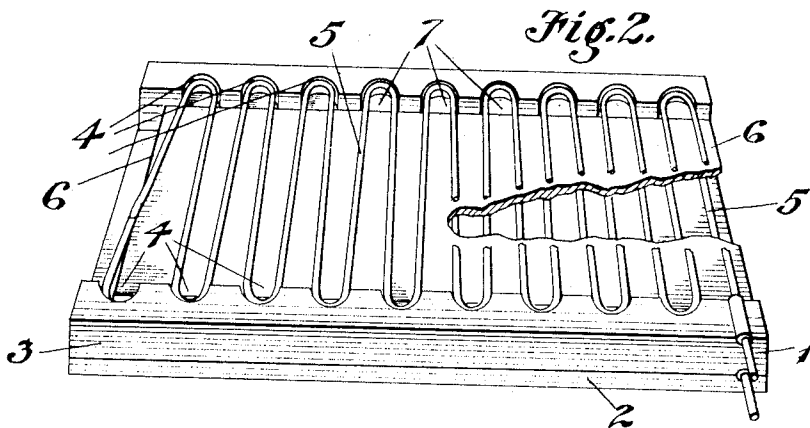


Fig. 2.

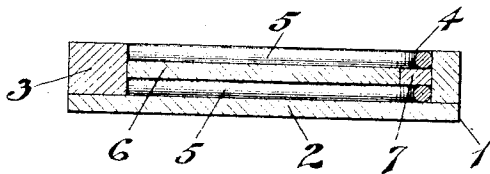


Fig. 3.

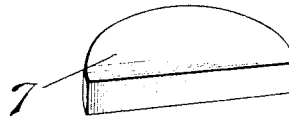


Fig. 4.

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UNITED STATES PATENT OFFICE.

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RESISTANCE ELEMENT.

1,038,422.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN J. NOLAN, a citizen of the United States, residing at Linton, in the county of Greene and State of Indiana, have invented new and useful Improvements in Resistance Elements, of which the following is a specification.

This invention relates to electrical resistance elements and the object of the invention is to provide a simple and efficient resistance element for use in connection with rheostats and the like, whereby each unit of the element may be readily disconnected from other units for repair or for any other purpose and whereby the windings of each unit will be of uniform length and will be maintained effectively in separated relation.

Further objects of this invention will appear as the following specific description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a perspective view showing a resistance element made up of a plurality of superimposed units. Fig. 2 is a perspective view of one of the units with the cover removed. Fig. 3 is a transverse sectional view through one of the completed units. Fig. 4 is a perspective view of one of the insulating buttons used in connection with the division sheets.

Referring more particularly to the drawing, 1 represents a complete unit of which there are six shown. As all of these units are similar, a description of one will suffice for them all and it only remains to make it clearly understood that as many units as are desired may be arranged in superimposed relation according to the amount of the resistance desired in the circuit.

2 illustrates a base of any suitable insulating and fire proof material, such as asbestos lumber, or the like, which has secured upon its side edges raised ribs 3 having semi-circular notches 4 formed in the inner sides thereof, as shown. The first layer of wire 5 is looped back and forth across the base

board 2 with its looped portions lying within the notches 4. A division sheet 6 of asbestos or similar material is then placed upon the top of said layer and suitable semi-circular buttons 7 are placed in the notches 4. The wire is then looped back and forth in the notches 4 on top of the buttons 7 and the terminals of the windings are extended out through a notch or recess formed in one of the ribs, being preferably covered with asbestos sleeving or similar material to prevent their contact. When these units are arranged, as shown in Fig. 1, it will be readily seen how any one of them may be removed from the pile for repairs or for any other purpose, and it will also be seen how the resistance element may have its total resistance increased by adding additional units.

What is claimed is:—

1. A resistance unit comprising a base having raised ribs on the sides thereof, said ribs having notches, a resistance wire extended across the base and having its loops lying in said notches, said wire being arranged in superimposed coils, a division piece between the coils, insulating buttons arranged in the notches between the loops of the coils, and a cover resting on the ribs.

2. A resistance unit comprising an insulating fire proof base having integral notched ribs adjacent the sides thereof, an insulating fire proof division piece, a resistance wire wound across the base and lying upon opposite sides of the division piece, the loops of said wire being arranged in the notches of the ribs, independent insulating fire proof buttons lying in the notches between the loops of the separated coils, and an insulating fire proof cover mounted upon the ribs.

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

JOHN J. NOLAN.

Witnesses:

JAMES H. HOSEMAN,
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