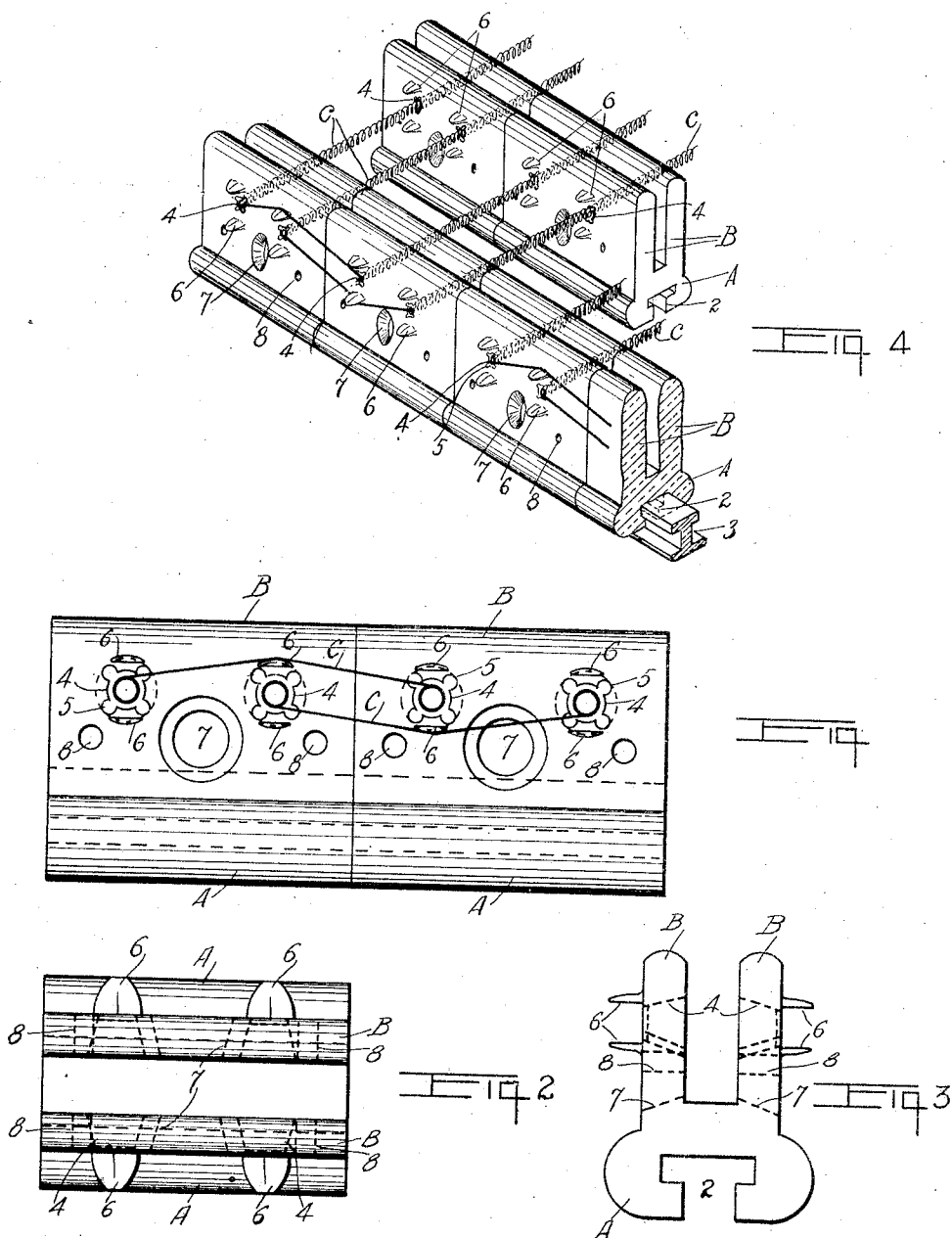


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R. H. MACINNES  
SECTIONAL INSULATION BLOCK FOR SUPPORTING AND STRINGING  
HEATING RESISTANCE COILS  
Filed May 24, 1923



INVENTOR

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# UNITED STATES PATENT OFFICE.

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## SECTIONAL INSULATION BLOCK FOR SUPPORTING AND STRINGING HEATING RESISTANCE COILS.

Application filed May 24, 1923. Serial No. 641,266.

*To all whom it may concern:*

Be it known that ROBERT H. MACINNES, a subject of the King of Great Britain, residing at Hamilton, in the county of Wentworth and Province of Ontario, Canada, has invented certain new and useful Improvements in Sectional Insulation Blocks for Supporting and Stringing Heating Resistance Coils, of which the following is a specification.

My invention relates to improvements in sectional insulation blocks for supporting and stringing heating resistance coils for ovens of electric ranges. In electric ovens where these blocks are employed, it is customary to arrange them in a plurality of parallel spaced rows, the blocks being positioned end to end in each row, and the resistance coils being strung through the rows of blocks in transverse relation thereto and parallel with each other thus spanning the space between each row of blocks. The invention consists in the individual block and essentially comprises a block having an enlarged base provided with a T groove extending from the bottom surface in which is adapted to fit a correspondingly shaped guide rail, a pair of twin walls with an intervening space between and extending perpendicularly from the said base, the walls being provided with improved means for supporting and cross lacing the resistance coils.

An object is to provide improved cross lacing means to keep one portion of the resistance coils out of contact with another on the end rows of blocks.

Still another object is to provide mountings for the blocks.

These, together with other objects, may be attained by the construction, combination and arrangement of the parts as will be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the claims hereunto appended.

Referring to the drawing:

Figure 1 is a side elevation of two adjacent blocks being members of a row comprising a plurality of the same positioned end to end, showing the manner of cross lacing the resistance coils;

Figure 2 is a top plan view of one of the blocks;

Figure 3 is an end view of one of the blocks; and,

Figure 4 is a perspective view showing a portion of two adjacent rows of blocks showing the stringing and cross lacing of the resistance coils.

Similar reference characters refer to similar parts throughout the several views.

The insulation block is comprised of a base A and a pair of longitudinally disposed parallel walls B with an intervening space between approximately equalling in width one of said walls. Into the bottom of the base A is formed a longitudinal groove 2 which is adapted to fit a correspondingly shaped rail or guide 3 which may be permanently secured to the surface of an oven. All the blocks forming a row are sleeved on the rail 3 end to end, as illustrated in Figure 4, which retains them in proper relation each with the other, and with the adjacent rows.

The resistance coils C are strung through transverse holes 4 in the walls B arranged opposite to each other and aligned with those in the blocks belonging to the adjacent rows, thus permitting the parallel arrangement of the coils. These holes are chamfered or beveled and expand in diameter toward the intervening space between the walls. This leaves but a small portion of the sides of the holes engaging the coils.

Above and below the holes 4 are formed projections or ledges 6, over some of those of which belong to the blocks in the outside or end rows, are laced the resistance coils for the purpose of returning them to the opposite end row.

There is in reality only one of the ledges 6 out of the 8 on each block required, as well illustrated in Figure 1, but as different ledges are employed on different blocks, I provide 4 on each wall so as to render them universal and consequently interchangeable. By thus producing the blocks every block in the set can be made from one mold, and although the ledges on the blocks in the centre rows are not used it lessens the cost of production. It will be observed from the drawing that the resistance coils are returned through every alternate row of holes 4, or, in staggered relation. The coil emitting from the outside corner hole 4 in

a corner block is led at an incline over the ledge above the outer hole 4 in the same wall of the same block and returned through the first adjacent hole 4 in the adjoining block, and in the same manner the other coil emitting from the other hole in the corner block is led at a decline under the ledge below the first hole 4 in the adjoining block and returned through the second hole 4 in the second block. In thus lacing the resistance coils the coils are pulled out to form straight strands of wire between the outside holes in the blocks in the end rows.

In the centre of the blocks are formed large ventilation holes 7. These holes are bevelled on their sides and provide drafts adapted to flow between the walls B to chill and therefore prevent breakage.

There has thus been produced a simple and efficient block for the purpose specified and of the class described.

Having now fully described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a block of the class described comprising a base and a pair of upright twin walls having transverse resistance coil stringing holes disposed opposite each other, and ledges formed on the outer side of each wall above and below each one of said holes.

2. In a block of the class described comprising a base and a pair of parallel upright twin walls having transverse resistance coil stringing holes disposed opposite each other, and ledges formed on the outer side of each wall above and below each one of said holes.

3. In a block of the class described comprising a base and a pair of parallel upright twin walls having transverse resistance coil stringing holes disposed opposite each other, said holes being bevelled to expand in diameter toward the intervening space be-

tween said walls, and ledges formed on the outer side of each wall above and below each one of said holes.

4. In a block of the class described comprising a base and a pair of parallel upright twin walls having transverse resistance coil stringing holes disposed opposite each other, and ledges formed on the outer side of each wall above and below each one of said holes, said walls having a large ventilation hole extending from the outside to the intervening space between the two walls and bevelled on their outsides.

5. In a block of the class described a base having a longitudinal T groove formed in the bottom thereof, a pair of longitudinally disposed parallel upright twin walls extending the length of the base and having transverse resistance coil stringing holes disposed opposite each other, and ledges formed on the outer side of each wall above and below each one of said holes.

6. In a block of the class described, a base, a pair of longitudinally disposed parallel upright twin walls extending the length of the base and having transverse resistance coil stringing holes disposed opposite each other, and ledges formed on the outer side of each wall above and below each one of said holes.

7. In a block of the class described, a base having a longitudinal T groove formed in the bottom thereof, and a pair of longitudinally disposed parallel upright twin walls extending the length of the base and having transverse resistance coil stringing holes disposed opposite each other.

In testimony whereof I have affixed my signature.

ROBERT H. MACINNES.

Witnesses:

H. E. HINDRY,  
B. D. EARLE.