

United States Patent [19]

Pierce

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~~4850863 BY WILLIAM F. CLARK~~

FURNACE

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[57]

ABSTRACT

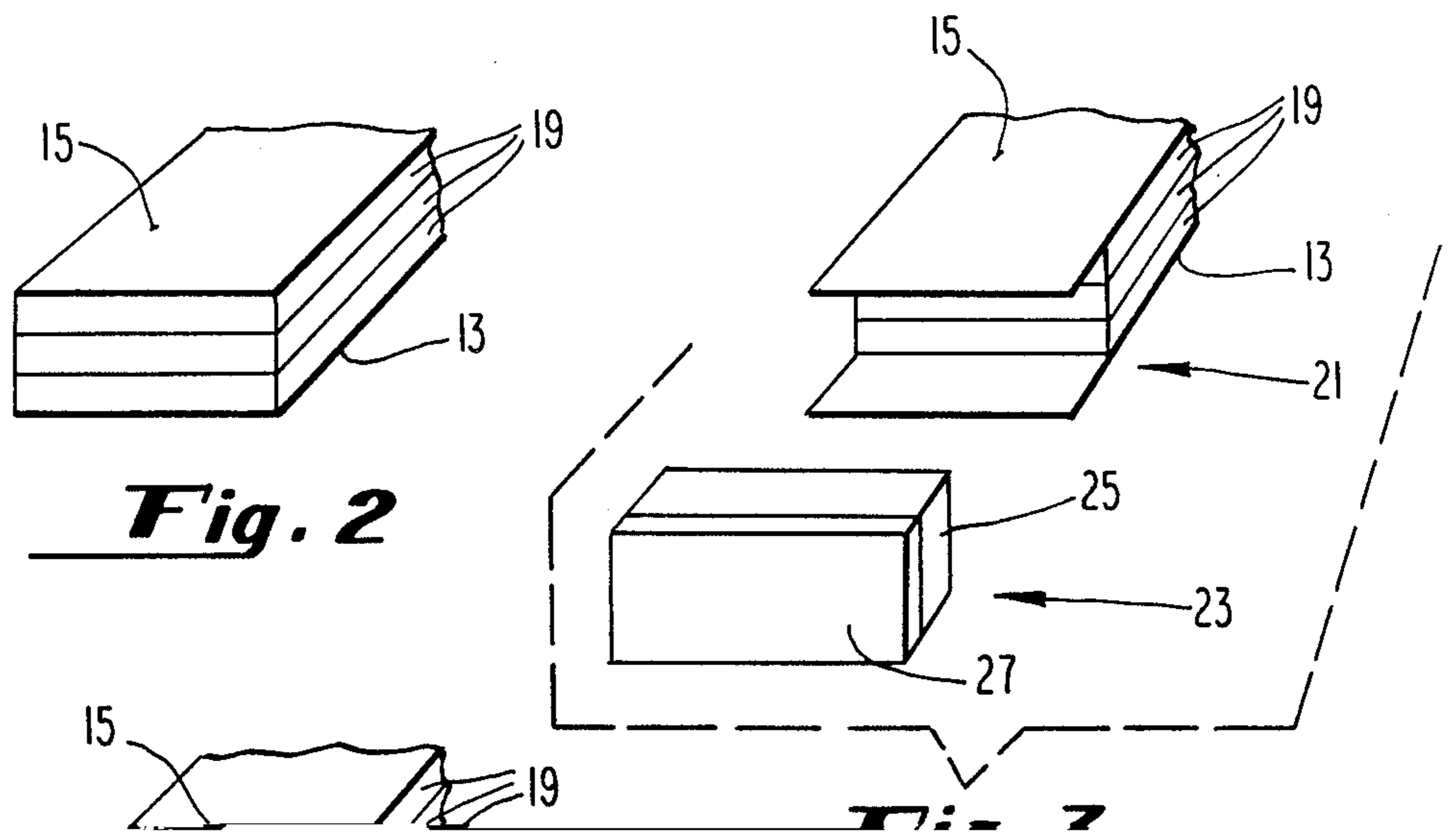
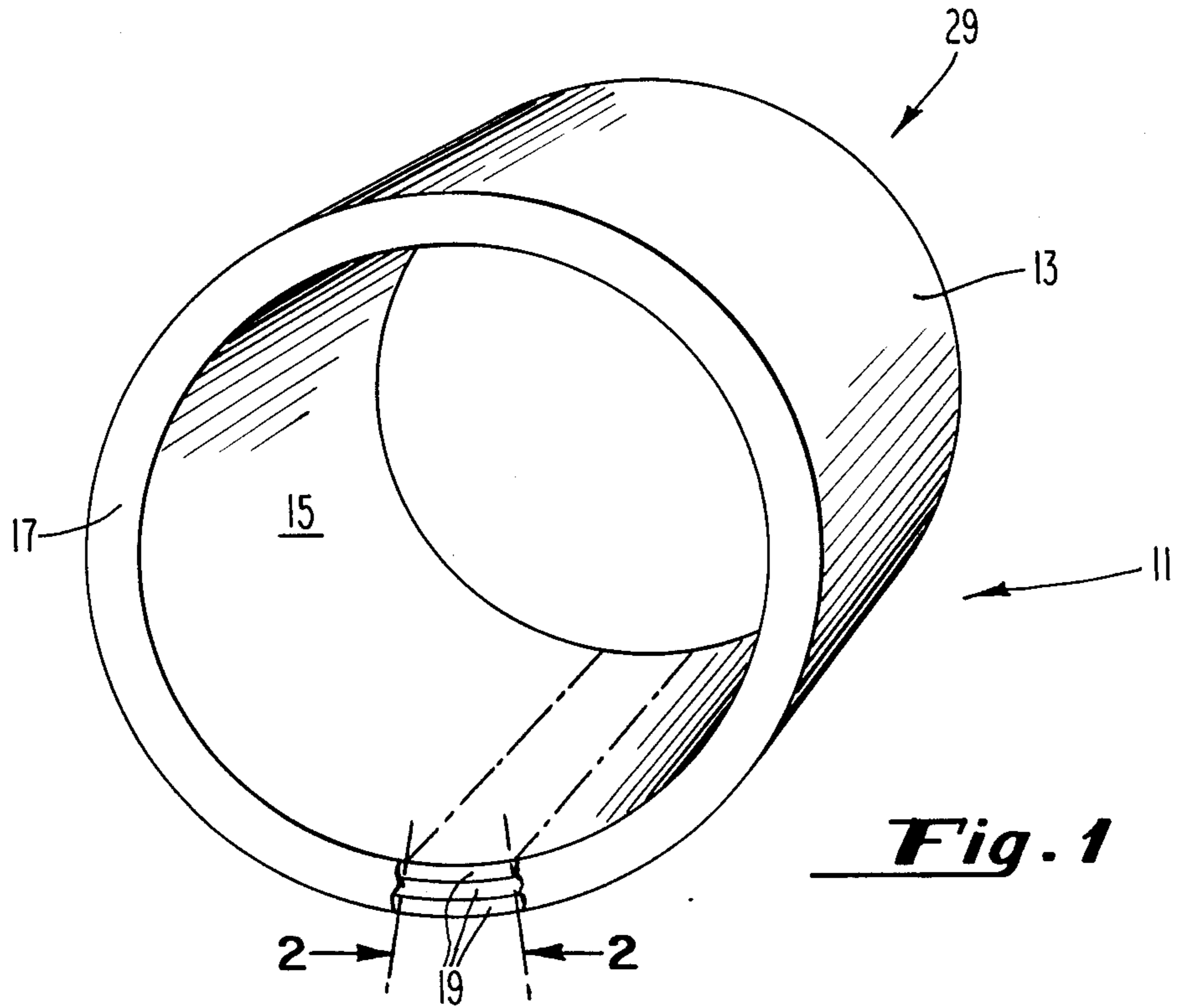
The present device comprises an enclosing structure for a furnace hot zone. The enclosing structure is

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a preferred embodiment, includes an outside wall (usually fabricated from stainless steel), and inside wall (usually fabricated from laminated graphite sheets) and layers of graphite felt located between the outside wall



SEALED INSULATING WALL FOR A FURNACE

BACKGROUND OF THE DISCLOSURE

ment the outside wall 13 is fabricated from stainless steel although other suitable materials could be used. The inside wall 15, in the preferred embodiment, is fabricated from laminated graphite sheets and the commer-

It is common practice in the vacuum furnace industry to have a hot zone which has an enveloping structure

5 cial Grafoil (trademark of Union Carbide Co.) is often employed. It should be understood that other suitable

3

presence of contaminants in the hot zone is greatly reduced.

I claim:

1. A multilayered wall to be used as part of a hot zone means in a furnace means comprising in combination: 5
 outside wall member means formed cylindrically so as to define a first cavity, with a length dimension;
 inside wall member means formed cylindrically so as to define a second cavity, with a length dimension,
 said inside wall member means further formed to 10
 have such dimensions that said inside wall member means fits within said first cavity, said inside wall member means further formed and disposed to define a separation between said inside wall member means and said outside wall member means; 15
 heat insulation means having first and second ends

4

member means so that first channel means is formed by said first end of said heat insulation means and a portion of said inside wall member means and a portion of said outside wall member means; and sealing insert means formed to fit in said first channel means and formed to seal said heat insulation means whereby said heat insulation means is sealed from passing particles thereof from its first end into other areas of said furnace, said sealing insert means being made up of two parts with one part being heat insulating means and the other part being a strip of laminated graphite sheets bonded to said one part.

2. A multilayered wall according to claim 1 wherein said one part is fabricated of rigidized heat insulating material and wherein when said sealing insert means