(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 947 773 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
06.10.1999 Bulletin 1999/40

(51) Int Cl.[6]: **F23D 14/46**, C04B 33/34, F24C 3/08

(21) Application number: **99200983.7**

(22) Date of filing: **31.03.1999**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **03.04.1998 ES 9800710**

(71) Applicant: **Mendoza Soria, Carmelo**
08203 Sabadell, Barcelona (ES)

(72) Inventor: **Mendoza Soria, Carmelo**
08203 Sabadell, Barcelona (ES)

(74) Representative: **Aguilar Forment, Domènec**
c/o Aguilar & Revenga
C. Consell de Cent 415, 5.o-1.a
08009 Barcelona (ES)

(54) Diffuser support base for burners and construction method

(57) The base is unique in that it is composed of non-porous vitrified refractory material. The construction method involves mixing a number of atomised powder-based components to which water and a mould release agent are then added, the mixed product being selected by means of a sieve test before being cast and pressed; the base obtained thereby is dried with hot air, polished, fired for the first time, glazed and fired again.

EP 0 947 773 A2

Description

OBJECT OF THE INVENTION

[0001] As its name indicates, the invention relates to a base like those used on cooker and cooking top burners to support the diffusers and which are connected to the gas pipe which supplies gas to the burner, as well as the process for constructing the said base.

BACKGROUND

[0002] At present, the diffuser bases used on cooker and cooking top burners are made of cast iron and are therefore not porous.

[0003] When hot food spills onto the hot base, it becomes stratified on the base and part of the food becomes incrusted on the inside of the pores, preventing the base from coming completely clean using conventional cleaning methods.

DESCRIPTION OF THE INVENTION

[0004] To solve these problems, the diffuser support base referred to herein has been uniquely designed in that it is made of non-porous vitrified refractory material in order to reduce food which spills on the hot base from sticking, thereby facilitating subsequent cleaning considerably and enabling the complete elimination of all spilled food since it is burned on the surface of the base rather than inside the pores, as occurs with conventional burners.

[0005] According to the invention, the process used to obtain the base is composed of the following steps: a) the following components, in the form of atomised powder, are mixed together: silicon dioxide (SiO2), aluminium trioxide (Al2O3), titanium dioxide (TiO2), ferrous oxide (Fe203), magnesium oxide (MgO), potassium oxide (K20), calcium oxide (CaO), sodium oxide (Na2O), phosphorous (P), and fluoride (F); b) water and olein-based mould release agents are added to the mix, c) the product obtained is selected by sieve testing, d) the selected product is placed in a mould and pressure applied thereto to shape the base, e) the base obtained thereby is introduced into a hot air chamber and then polished, g) the base is fired at a temperature of about 1000°C, g) the base is glazed and h) the base is fired again at a temperature of 1350°C.

DESCRIPTION OF THE DRAWINGS

[0006] In order to facilitate an understanding of the invention, a sheet of drawings is attached to this description in which:

- Figure 1 shows a vertical section of a portion of a cooking top, where the base in question can be seen connected to the gas pipe and supporting a diffuser.

PREFERRED EMBODIMENT OF THE INVENTION

[0007] As observed in the referenced figures, the base (1) which is part of the cooking top burner (2) is connected to the gas pipe (3) which supplies the gas to the burner and also serves as a diffuser support (4), is unique in that it is made of non-porous vitrified material in order to reduce food from sticking to the hot base during preparation due to the heat produced by the combustion of the gas from the holes in the base (1) and the diffuser (4).

[0008] No further description is deemed necessary since any expert in the field will understand the scope of the invention and the advantages derived therefrom.

[0009] The terms in which this description has been written shall always be understood in the widest, non-limiting sense, the essential features of the invention being contained in the following claims:

Claims

1. Diffuser support base for burners which, being of the type used on cookers and cooking top to support the diffusers and which are connected to the end of the gas pipe that supplies gas to the burner, is characterised in that it is made of non-porous vitrified refractory material.

2. Process for obtaining the diffuser support base mentioned in the preceding claim, characterised in that it is composed of the following steps: a) the following components, in the form of atomised powder, are mixed together: silicon dioxide (SiO2), aluminium trioxide (Al2O3), titanium dioxide (TiO2), ferrous oxide (Fe2O3), magnesium oxide (MgO), potassium oxide (K2O), calcium oxide (CaO), sodium oxide (Na2O), phosphorous (P), and fluoride (F); b) water and olein-based mould release agents are added to the mix, c) the product obtained is selected by sieve testing, d) the chosen product is placed in a mould and pressure applied thereto to shape the base, e) the base obtained thereby is introduced into a hot air chamber and then polished, g) the base is fired at a temperature of about 1000°C, g) the base is glazed, and h) the base is fired again at a temperature of 1350°C.

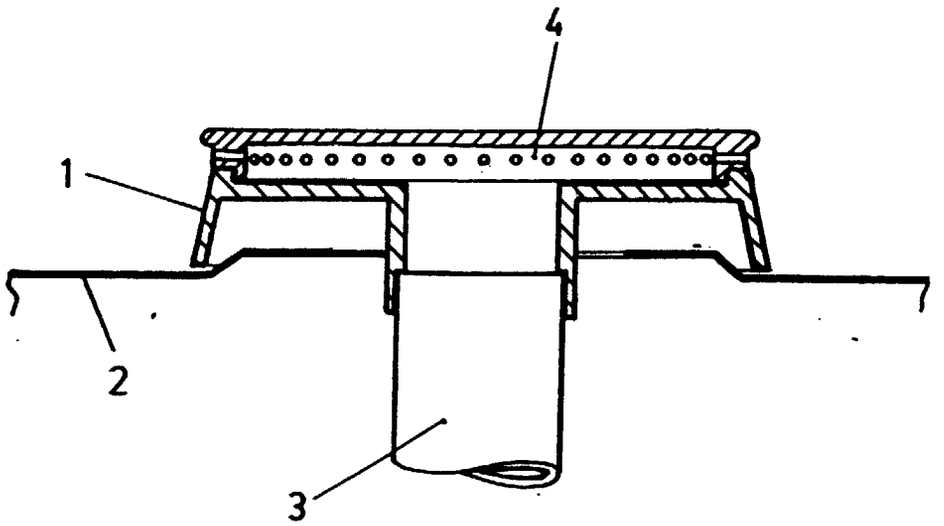

FIG. 1