

Title (en)  
INSTALLATION OF AND METHOD FOR HEATING BY MEANS OF IMMersed FIRING

Publication  
**EP 0118363 B1 19890726 (FR)**

Application  
**EP 84400407 A 19840229**

Priority  
FR 8303425 A 19830302

Abstract (en)  
[origin: EP0118363A2] 1. A heating plant comprising a tank containing a bath (3) to be heated by means of a submerged combustion burner (4) and a means (26) which is partially immersed in the bath in order to confine beneath it, in a space (32) provided for the purpose, the smoke of combustion produced by the said burner, characterised in that in order to obtain heating temperatures which are clearly in excess of 60 degrees C, and for example as high as 90 degrees C, with a satisfactory degree of efficiency, the plant (1) is equipped at the smoke outlet, above the said confining means (26), with a washing tower (8) comprising, in counter-current with the smoke, a series of cascades forming a plurality of curtains of water (R1-R4) which are substantially continuous and which are disposed in series in the path of the smoke, the said curtains being supplied by a flow of cold water (10) which is to be heated by the plant, the said cascades comprising walls (15) for forming the curtains of water (R1-R4) provided partly at the top and partly at the bottom with means such as teeth (16), projecting ridges (17) and orifices (18) which ensure continuous formation of the curtains, with no tear-away, over all their width, and further characterised in that the said smoke confining means takes the form of a plate (26) covering the major part of the surface of the bath (3), the said plate comprising a substantially horizontal surface (29) edged by a wall (30) extending upwardly and downwardly beyond it, disposing above it a space (31) for collecting water which falls from the washing tower.

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IPC 8 full level  
**F23J 15/04** (2006.01); **F24H 1/10** (2006.01)

CPC (source: EP)  
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Cited by  
EP0681146A3; FR2661974A1; US6338337B1; US6293277B1; FR2571836A1; EP0181248A1; EP0138319B1

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