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(54) **Flue with turbulence plates**

(57) The purpose of the invention is the design (construction) of the flue (1) of the solid fuel boiler system. The design which causes the effect of turbulence in the flue and at the same time is easy to disassemble and clean. It consists of the following: the inlet (2), the flue channel (3), the turbulence plates (4), the heat exchanger (5), the free passage (6), the outlet (7), and the inspection aperture (8). The main distinctive feature is the turbulence plates (4), which consist of the following structural elements: the bottom support (9), two upper supports (10), the body (11) and the notch (12). The said turbulence plates are called turbulence because they force gas (fumes) to stop itself in the flue, to rotate, and to flow around the obstacle. In boiler flue these plates are installed at a certain angle and stop the outgoing fumes; the latter spend a longer time in the heat exchanger and give a larger amount heat to it. In the design of the invention the aforementioned turbulence plates are not able to "burn" as they touch the small surface of the flue, also they are much easier to clean. The design of the invention is particularly well suited for solid fuel gas generation boilers, however it is also suitable for all equipment of the solid fuel boilers of the bottom and side combustion.

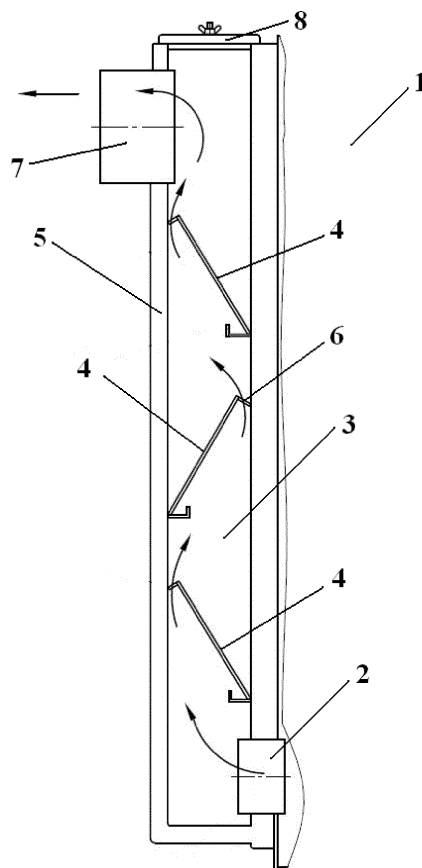


Fig. 1



EUROPEAN SEARCH REPORT

 Application Number
 EP 12 18 8832

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			F24B F23M F24H F23B F28D F28F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 June 2014	Examiner Adant, Vincent
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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