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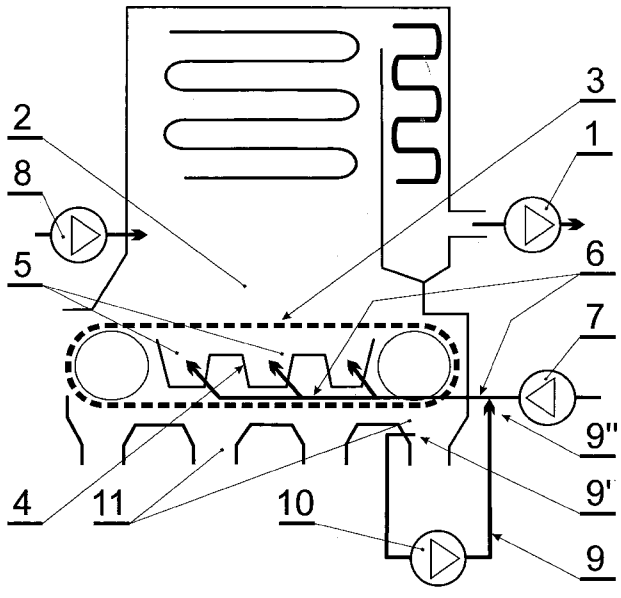


Fig.1

(57) Abstract: A boiler according to the invention contains an additional air channel (9) with an inbuilt fan (10) with adjustable output. The first end (91) of the additional air channel (9) is connected with the under-stoker space (11) located outside of the wind boxes (5) of the under-stoker wind boxes system (4). The other end (9') of the additional air channel (9) is connected with either the space of the channel (6) supplying outside air to the wind boxes (5) or with the atmosphere or with the secondary air channel of the combustion chamber (2). Modernization of the existing boilers consists in installation in the described above method of an additional air channel (9) with an inbuilt fan (10). The method of elimination of uncontrolled leakages in a stoker-fired boiler consist in leading out and air, getting through air gaps, from the under-stoker space of the boiler located outside of the wind boxes (5) to the described above additional air channel (6), wherein current output of the fan (10) built into this channel is proportional to the current difference between temperature of air supplied to the wind boxes (5) and temperature of air in the additional air channel (6).

WO 2009/072909 A4

AMENDED CLAIMS
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1. A method of elimination of uncontrolled leakages of air not taking part in the combustion process in a stoker-fired boiler containing a combustion chamber (2), movable mechanical stoker (3), and the under-stoker space (11) containing an under-stoker wind boxes system (4) with wind boxes (5), as well as a channel (6) supplying the air from the atmosphere to the inside of the wind boxes (5), **characterized in that** the air is led out from the under-stoker space (11) located outside of the wind boxes (5) of the under-stoker wind boxes system (4) to the additional air channel (9) with an inbuilt fan (10) with adjustable output, wherein current output of this fan (10) is proportional to the current difference between temperature of air supplied to the wind boxes (5) and temperature of air in the additional air channel (9).

2. The method of elimination of uncontrolled leakages according to claim 1, **characterized in that** the air led out to the additional air channel (9) is supplied to the wind boxes (5) of the under-stoker wind boxes system (4).

3. The method of elimination of uncontrolled leakages according to claim 1, **characterized in that** the air led out to the additional air channel (9) is led out further to the atmosphere.

4. The method of elimination of uncontrolled leakages according to claim 1, **characterized in that** the air led out to the additional air channel (9) is supplied to the secondary air channel of the combustion chamber (2).

5. A stoker-fired boiler having a combustion chamber (2) with a secondary air channel, **a** movable mechanical stoker (3), an under-stoker space (11) containing an under-stoker wind boxes system (4) with wind boxes (5), as well as a main air channel (6) supplying the air from the atmosphere to the inside of the wind boxes (5) and an additional air channel (9) with an inbuilt fan (10) with adjustable output, wherein the first end (9') of the additional air channel (9) is connected with the under-stoker space (11) located outside of the wind boxes (5) of the under-stoker wind boxes system (4), **characterized in that** the second end (9") of the additional air channel (9) is connected with the atmosphere.

6. The boiler according to claim 5, **characterized in that** it contains temperature sensors located in the space of the main air channel (6) and in the space of the additional air channel (9) which are connected to controller of the inbuilt fan (10).

7. A method of modernization of a stoker-fire boiler containing a combustion chamber (2) with a secondary air channel, a movable mechanical stoker (3), an under-stoker space (11) containing an under-stoker wind boxes system (4) with wind boxes (5), as well as a main air channel (6) supplying the air from the atmosphere to the inside of the wind boxes (5), wherein the under-stoker space (11) located outside of the wind boxes (5) of the under-stoker wind boxes system (4) is connected with the first end (9') of the additional air channel (9) having an inbuilt fan (10) with adjustable output, **characterized in that** the second end (9") of the additional air channel (9) is connected with the atmosphere.

8. The method of modernization of a boiler according to claim 7, **characterized in that** in the space of the main air channel (6) and in the space of the additional air channel (9) are located temperature sensors which are connected to controller of the inbuilt fan (10).