

F23H

GRATES (inlets for fluidisation air for fluidised bed combustion apparatus [F23C 10/20](#)); CLEANING OR RAKING GRATES

Definition statement

This place covers:

All details of combustion grates, including all relevant accessories and peripheral devices such as driving mechanisms or cooling arrangements for example, independently from the type of solid fuel which is supported and burned on the grate.

References

Limiting references

This place does not cover:

Inlets for fluidisation air for fluidised bed combustion apparatus	F23C 10/20
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Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Arrangements or mountings of grates in stoves or ranges	F23B13/02
Arrangements or mountings of grates in incinerators	F23G 5/002

Informative references

Attention is drawn to the following places, which may be of interest for search:

Arrangements of drying grates in incinerators	F23G 5/05
Details of drying grates	F26
Details of cooling grates in furnaces or ovens in general	F27D 15/0213

Special rules of classification

Subgroups [F23H 7/12-F23H 7/18](#) are not used; all inclined or stepped grates should be classified either in subgroups [F23H 7/08](#) or [F23H 7/10](#).

When classifying in this subclass, add codes [F23H 2900/17001](#) - [F23H 2900/09041](#).

Indexing Codes [F23H 2700/001-F23H 2700/009](#) are not used for classification purpose.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Air	a mixture of gases containing free oxygen and able to promote or support combustion
Primary air	air supplied to the burning fuel in order to liberate combustible gases
Secondary air	air supplied to the combustible gases liberated by the primary air in order to complete their combustion. The term "secondary air" covers "tertiary air" etc.

Ash	means any solid combustion residues, for example remaining in the fuel bed or suspended in the flue gases
Burner	a device by which fluid fuel or solid fuel suspended in air is passed to a combustion space where it burns to produce a self-supporting flame
Combustion	means the direct combination of oxygen gas, e.g. in air and a burnable substance
Combustion chamber	a chamber in which fuel is burned to establish a self-supporting fire or flame and which surrounds that fire or flame
Combustion zone	the part of the apparatus where the reaction takes place between air and fuel
Flue gases	any gaseous products of combustion
Grate	a perforated surface, e.g. a grid which supports or delimits a bed of burning fuel and serves to supply primary air

Synonyms and Keywords

In patent documents, the following words/expressions are often used with the meaning indicated:

"boiler"	"combustion apparatus".
"burner"	"combustion apparatus".

F23H 1/06

having bars at different levels (double grates [F23H 5/00](#))

References

Limiting references

This place does not cover:

Double grates	F23H 5/00
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F23H 7/00

Inclined {or stepped} grates (inclined travelling grates [F23H 11/12](#))

References

Limiting references

This place does not cover:

Inclined travelling grates	F23H 11/12
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F23H 9/00

Revolving-grates; Rocking-grates ([F23H 7/00](#) takes precedence)

References**Limiting references**

This place does not cover:

Inclined or stepped grates	F23H 7/00
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F23H 9/04

Grates rocked as a whole

Definition statement

This place covers:

All grates somehow moved as a whole, thus including also vibrating grates.

F23H 15/00

Cleaning arrangements for grates (not forming part of the grate [F23J 1/00](#));
Moving fuel along grate (rocking-grates modified for moving fuel [F23H 9/10](#); for
travelling-grates [F23H 11/22](#))

References**Limiting references**

This place does not cover:

Rocking grates modified for moving fuels	F23H 9/10
Cleaning arrangements for travelling grates	F23H 11/22
Cleaning arrangements which do not form part of the grate	F23J 1/00