

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 1794

DATE: AUGUST 1, 2025

PROJECT RP12295

The following classification changes will be effected by this Notice of Changes:

<u>Action</u>	<u>Subclass</u>	<u>Group(s)</u>
SCHEME:		
Symbols Deleted:	F23D	91/00, 91/02, 91/04
	F23D	2206/10
Symbols New:	F23D	99/002, 99/004, 99/005
Titles Changed:	F23D	1/00
	F23D	11/001, 11/002, 11/22, 11/34, 11/36, 11/40
	F23D	14/46, 14/56
	F23D	17/00
	F23D	2900/00006, 2900/21005, 2900/31003, 2900/31014, 2900/31019
Warnings Deleted:	F23D	SUBCLASS
Notes New:	F23D	SUBCLASS
Guidance Headings New:	F23D	2200/00
Guidance Headings Modified:	F23D	3/00
	F23D	17/00
DEFINITIONS:		
Definitions Deleted: (no frozen (F) symbol definitions should be deleted)	F23D	91/00
Definitions New:	F23D	11/001, 11/002, 11/22, 11/34
	F23D	99/002
	F23D	2207/00
	F23D	2900/11402, 2900/14021, 2900/14241, 2900/14701
Definitions Modified:	F23D	SUBCLASS
	F23D	11/00, 11/38

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following [Check the ones included]:

1. CLASSIFICATION SCHEME CHANGES

- ☒ A. New, Modified or Deleted Group(s)
- ☒ B. New, Modified or Deleted Warning(s)
- ☒ C. New, Modified or Deleted Note(s)

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☒ D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

☒ A. New or Modified Definitions (Full definition template)

☒ B. Modified or Deleted Definitions (Definitions Quick Fix)

3. ☒ REVISION CONCORDANCE LIST (RCL)

4. ☒ CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5. ☐ CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)**SUBCLASS F23D - BURNERS**

<u>Type*</u>	<u>Symbol</u>	<u>Indent Level</u> <u>Number of dots</u> <u>(e.g. 0, 1, 2)</u>	<u>Title</u> <u>“CPC only” text should normally be</u> <u>enclosed in {curly brackets}**</u>	<u>Transferred to#</u>
M	F23D1/00	0	Burners for combustion of pulverulent fuel	
M	F23D11/001	1	{Spraying nozzle combined with forced draft fan in one unit}	
M	F23D11/002	1	{Spraying nozzle arranged within furnace openings}	
M	F23D11/22	2	the gaseous medium being vaporised fuel, e.g. for a soldering lamp	
M	F23D11/34	1	by ultrasonic means	
M	F23D11/36	1	Details	
M	F23D11/40	2	Mixing tubes; Burner heads	
M	F23D14/46	1	Details	
M	F23D14/56	3	for spreading the flame over an area, e.g. for desurfacing of solid material, for surface hardening or for heating workpieces	
M	F23D17/00	0	Burners for combustion simultaneously or alternately of gaseous or liquid or pulverulent fuel	
D	F23D91/00	0	{Burners specially adapted for specific applications, not otherwise provided for}	<Administrative transfer to F23D 99/002>
D	F23D91/02	1	{for use in particular heating operations}	<Administrative transfer to F23D 99/004>
D	F23D91/04	2	{for heating liquids, e.g. for vaporising or concentrating}	<Administrative transfer to F23D 99/005>
U	F23D99/00	0	Subject matter not provided for in other groups of this subclass	
N	F23D99/002	1	{Burners specially adapted for specific applications}	
N	F23D99/004	2	{for use in particular heating operations}	
N	F23D99/005	3	{for heating liquids, e.g. for vaporising or concentrating}	
D	F23D2206/10	1	Turbines	<no transfer>
M	F23D2900/0006	1	Liquid fuel burners using pure oxygen or oxygen-enriched air as oxidant	

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M	F23D 2900/21005	2	for flame deposition, e.g. flame hydrolysis deposition [FHD]	
M	F23D 2900/31003	1	Inverted wick burners; Wick burners using preheated air	
M	F23D2900/3 1014	1	Wick stop devices; Wick fixing devices	
M	F23D2900/3 1019	1	Mixing tubes combined with burner heads	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T = existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “<administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or <administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalization projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

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B. New, Modified or Deleted Warning notice(s)

SUBCLASS F23D - BURNERS

<u>Type*</u>	<u>Location</u>	<u>Old Warning notice</u>	<u>New/Modified Warning</u>
D	F23D	In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.	Delete the entire Warning.

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

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C. New, Modified or Deleted Note(s)

SUBCLASS F23D - BURNERS

<u>Type*</u>	<u>Location</u>	<u>Old Note</u>	<u>New/Modified Note</u>
N	F23D		{In this subclass, it is desirable to use the indexing codes of F23D 2200/00 – F23D 2900/00.}

*N = new note, M = modified note, D = deleted note

NOTE: The "Location" column only requires the symbol PRIOR to the location of the note. No further directions such as "before" or "after" are required.

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D. New, Modified or Deleted Guidance Heading(s)**SUBCLASS F23D - BURNERS**

<u>Type*</u>	<u>Location</u>	<u>Old Guidance Heading</u>	<u>New/Modified Guidance Heading</u>
M	F23D 3/00 – F23D 11/00		Combustion of a liquid
M	F23D 17/00 – F23D 23/00		Other burners
N	F23D 2200/00-F23D 2900/00		Indexing codes associated with burners

*N = new guidance heading, M =modified guidance heading, D = deleted guidance heading

NOTES:

- The “Location” column requires the symbol AFTER the guidance heading location. No further directions such as “before” or “after” are required.
- In cases where there may be confusion as to whether a new group falls within the scope of a guidance heading, indicate the guidance heading and whether the group does or does not go with the guidance heading. This can be included in the “Location” column. For example, the guidance heading “Compounds containing carbon together with sulfur, selenium or tellurium with or without hydrogen, halogens, oxygen or nitrogen” encompasses groups C07C 301/00-395/00 only. If a new group C07C 398/00 is proposed and is included in the guidance heading scope, indicate this in the “Location” column as follows: 398/00 to be included under the guidance heading: “Compounds containing carbon together with sulfur, selenium or tellurium with or without hydrogen, halogens, oxygen or nitrogen.”

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2. A. DEFINITIONS (new)

F23D 11/001

References

Informative references

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

Nozzles for burners using a direct spraying action of liquid droplets or vaporised liquid; Cleaning devices therefor	F23D 11/38
Combustion apparatus characterised by arrangements for air supply	F23C 7/00
Blast-producing apparatus before the fire	F23L 5/00

F23D 11/002

References

Informative references

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

Nozzles for burners using a direct spraying action of liquid droplets or vaporised liquid; Cleaning devices therefor	F23D 11/38
Combustion chambers with casings, linings or walls with the shape of bricks or blocks used specially adapted for burner openings	F23M 5/025

F23D 11/22

Definition statement

This place covers:

Spraying of liquid fuel droplets being induced by vaporised fuel.

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F23D 11/34**Special rules of classification**

Ultrasonic devices technically operate at frequencies greater than 20 kHz, but devices operating at lower frequencies may be placed in [F23D 11/34](#) if they have a similar function.

F23D 99/002**References****Informative references**

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

Using burners for spectroscopy	G01N 21/72
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F23D 2207/00**Definition statement**

This place covers:

Spark-type or glow-type igniters.

References**Informative references**

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

Pilot burners specially adapted for ignition of main burners in furnaces or gas turbines	F23D 2900/00014
Pilot burners specially adapted for low load or transient conditions, e.g. for increasing stability	F23D 2900/00015
Regulating or controlling combustion	F23N
Ignition; Extinguishing devices	F23Q

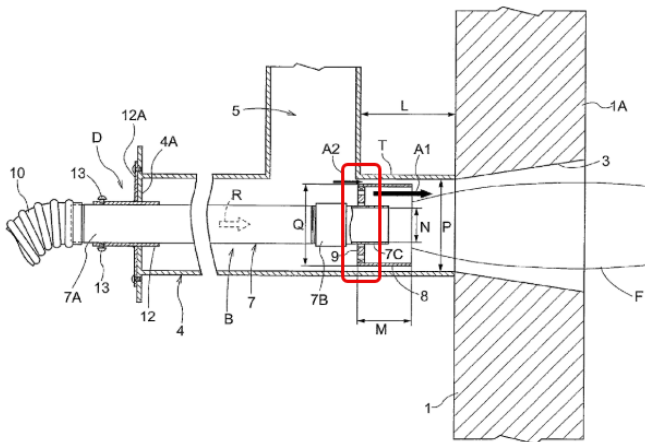
Sparking plugs

H01T 13/00

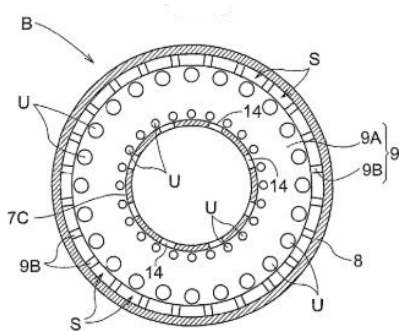
F23D 2900/11402**Definition statement***This place covers:*

Illustrative example of the subject matter classified in this place:

1a. Burner with flame stabilising diaphragm (side view)



1b. Flame stabilising diaphragm (front view)

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

diaphragm

a dividing membrane or thin partition, especially in a tube

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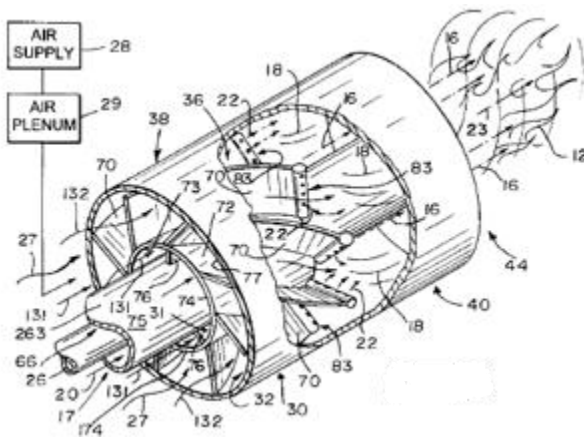
F23D 2900/14021

Definition statement

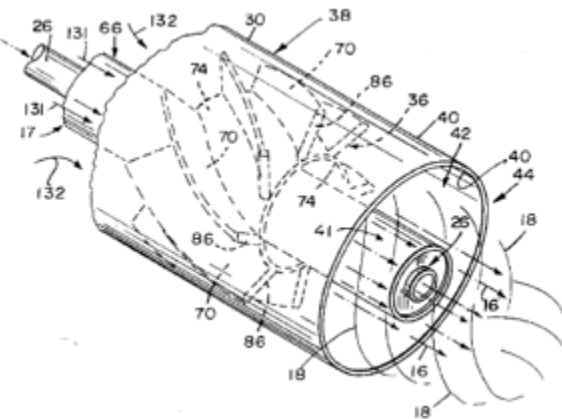
This place covers:

Illustrative example of the subject matter classified in this place:

1a.



1b.



References

Informative references

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

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2. A. DEFINITIONS (modified)

F23D

Replace: The existing Definition statement with the following updated statement.

Definition statement

This place covers:

Burners, i.e. devices 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, for example, burners in which:

- pulverulent solid fuel is entrained into the combustion space by air;
- liquid fuel is transported by capillary action to the combustion space where it evaporates, e.g. wick burners;
- liquid fuel evaporates from an open fuel surface, e.g. pot burners;
- liquid fuel is sprayed into the combustion space by fluid pressure;
- liquid fuel is entrained into the combustion space by a stream of gaseous medium, for example, air or steam;
- liquid fuel is vaporised within a conduit and released in gaseous form into the combustion space;
- liquid fuel is dispersed into the combustion space by mechanical means, e.g. ultrasonic vibrations or centrifugal action;
- gaseous fuel mixed with air is released into the combustion space;
- gaseous fuel is released into the combustion space where it is mixed with air;
or
- pulverulent, liquid or gaseous fuels are used simultaneously or alternately.

References

Delete: The entire Limiting references section.

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Replace: The existing Application-oriented references table with the following updated table.

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:

Flame throwers for destroying noxious animals or plants	A01M 15/00
Bakers' ovens	A21B 1/00
Cooking devices, e.g. travelling cookers or barbecues	A47J 36/00, A47J 37/00
Soldering	B23K 1/00, B23B 3/00
Gas flame welding or cutting	B23K 5/00
Cutting, scarfing or desurfacing by applying flames	B23K 7/00
Surface shaping of plastics by flame treatment	B29C 59/08
Joining of plastics using flames coming in contact with at least one of the parts to be joined	B29C 65/106
Using burners in chemical vapour deposition	C23C 16/453
Heating boreholes or wells with burners	E21B 36/02
Using burners for regenerating exhaust gas filters	F01N 3/025
Gas-turbine plants	F02C
Jet-propulsion plants	F02K
Using burners for ignition of internal combustion engines	F02P 19/00, F02P 21/00
Incandescent mantles	F21H
Non-electric portable lighting devices	F21L 17/00 - F21L 27/00
Non-electric non-portable lighting devices	F21S 13/00 - F21S 19/00
Arrangements of mantles or other incandescent bodies on lighting burners	F21V 36/00

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Details of lighting devices employing combustion as light source	F21V 37/00
Steam boilers	F22B
Arrangement of burners in combustion apparatus	F23C 5/00
Methods or apparatus specially adapted for combustion of waste or low-grade fuels, e.g. waste oil, waste liquors or waste gases	F23G
Lighters containing fuel	F23Q 2/00
Ignition using burners	F23Q 9/00, F23Q 13/00
Generating combustion products of high pressure or high velocity, e.g. gas turbine burners	F23R
Stoves or ranges for liquid or gaseous fuels	F24C
Fluid heaters having heat-generating means, e.g. heating boilers	F24H
Arrangement of burners in fluid heaters	F24H 9/1832
Arrangement of burners in furnaces or ovens for heat treatment	F27B
Using burners for cleaning heat exchangers	F28G 11/00
Flame-throwers for attack or defence	F41H 9/02

Replace: The existing Informative references table with the following updated table.

Informative references

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

Mixing a gas with another gas or vapour and flow mixers in general	B01F 23/00, B01F 25/00
Spraying or atomising apparatus in general; Nozzles in general	B05B
Fuels	C10H, C10J, C10K, C10L
Candles	C11C 5/00

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Pressure vessels for gases	F17C
Methods or apparatus for combustion using fluid fuel or solid fuel suspended in air	F23C
Air supply specially adapted for combustion of fluid fuels	F23C 7/00
Combustion in a fluidised bed of fuel or other particles	F23C 10/00
Apparatus in which combustion takes place in pulses influenced by acoustic resonance in a gas mass	F23C 15/00
Arrangement of devices for supplying chemicals to fire	F23J 7/00
Feeding liquid or gaseous fuel to combustion apparatus	F23K
Supply of air or non-combustible liquids or gases to combustion apparatus in general	F23L
Details of combustion chambers, e.g. linings, doors or baffles	F23M
Regulating or controlling combustion in general	F23N

Replace: The existing Special rules text with the following updated text.

Special rules of classification

In this subclass, methods are classified in the groups which cover the apparatus used.

Multiple classification is mandatory when:

- the subject matter to be classified deals with air supply means which are part of a burner, but no relevant subgroup is available in [F23D](#), e.g. arrangements of swirling vanes in a premix gas burner have to be classified in [F23C 7/004](#) and [F23D 14/02](#);
- the subject matter to be classified, in addition to a burner, includes further features of the air supply means that are of interest, for example, a particular form of a swirling vane, even if a relevant subgroup is available in [F23D](#), e.g. an arrangement of adjustable swirling vanes in a non-premix gas burner having separate air and gas feed conduits have to be classified in [F23C 7/006](#) and [F23D 14/24](#).

Indexing codes [F23D 2200/00](#)-[F23D 2900/00](#) are available for further classification.

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Replace: The existing Glossary of terms table with the following updated table.

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
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. A burner includes means for feeding air that are arranged in immediate connection with a fuel feeding conduit, for example, concentric with it.
combustion	a heat-producing sequence of chemical reactions between a burnable substance and molecular oxygen, e.g. in air, in most cases generating light in the form of flames or a glow
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 space	the zone downstream of the fuel (and, where applicable, air) outlet where the reaction takes place between air and fuel
fuel	any combustible material that can be burned, regardless of whether the main purpose of burning it is for releasing energy therefrom or for disposing of it or rendering it less harmful
pilot flame	a small flame that is lit or kept alight in order to provide ignition to a more powerful burner
primary air	air supplied to the burning fuel in order to liberate combustible gases
retention flame	a small flame that is kept alight in order to maintain the uninterrupted operation of a more powerful burner
secondary air	air supplied to the combustible gases liberated by the primary air in order to complete their combustion. The expression "secondary air" covers "tertiary air", etc.
torch	a burner fired with fuel gas and oxygen and specially adapted to apply heat to a workpiece, for example, for use in welding, cutting or brazing

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F23D 11/00

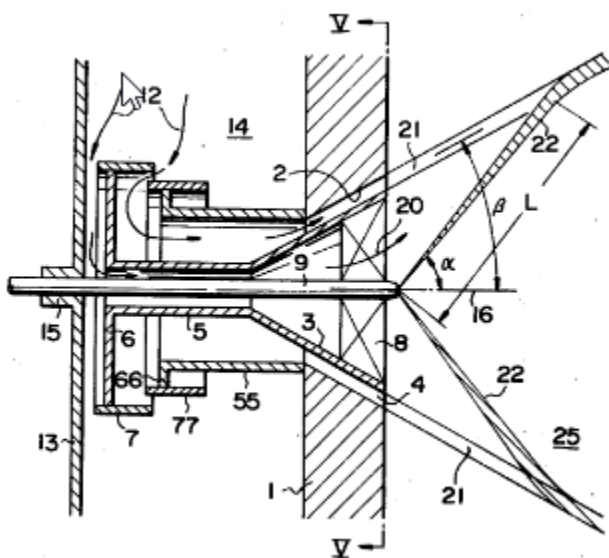
Insert: The following new Definition statement.

Definition statement

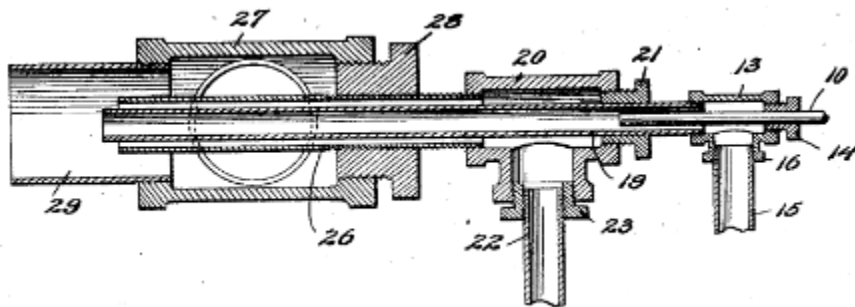
This place covers:

Illustrative examples of the subject matter classified in this place:

1. Liquid fuel is sprayed into the combustion space by fluid pressure



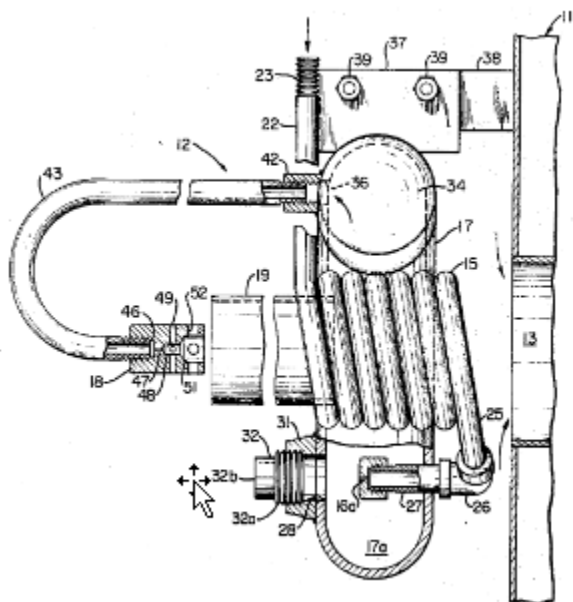
2. Liquid fuel is entrained into the combustion space by a stream of gaseous medium, for example, air or steam



3. Liquid fuel is vaporised within a conduit and released in gaseous form into the combustion space

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References

Replace: The existing Informative references table with the following updated table.

Informative references

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

Spraying apparatus; Atomising apparatus; Nozzles	B05B
Processes for applying fluent materials to surfaces, in general	B05D
Vaporising devices which do not form part of the burner	F23K 5/22

F23D 11/38

Insert: The following two new references in the Informative references table.

References

Informative references

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

Spraying nozzle combined with forced draft fan in one unit	F23D 11/001
Spraying nozzle arranged within furnace openings	F23D 11/002

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2. B. DEFINITIONS QUICK FIX

<u>Symbol</u>	<u>Location of change</u> (e.g., section title)	<u>Existing reference</u> <u>symbol or text</u>	<u>Action; New symbol; New text</u>
F23D 91/00	Definition statement		Delete the entire Definition.

NOTES:

- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

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3. REVISION CONCORDANCE LIST (RCL)

Type*	From CPC Symbol (existing)	To CPC Symbol(s)
D	F23D 91/00	<Administrative transfer to F23D 99/002>
D	F23D 91/02	<Administrative transfer to F23D 99/004>
D	F23D 91/04	<Administrative transfer to F23D 99/005>
D	F23D 2206/10	<no transfer>

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the “To” column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: “< administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“To”) symbol, however it is required to specify “<no transfer>” in the “To” column for such cases.
- RCL is not needed for finalisation projects.

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4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

<u>CPC</u>	<u>IPC</u>	<u>Action*</u>
F23D 91/00		DELETE
F23D 91/02		DELETE
F23D 91/04		DELETE
F23D 99/002	F23D 99/00	NEW
F23D 99/004	F23D 99/00	NEW
F23D 99/005	F23D 99/00	NEW
F23D 2206/10		DELETE

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are not included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.