

F21S

NON-PORTABLE LIGHTING DEVICES OR SYSTEMS THEREOF (burners F23D)

Definition statement

This subclass/group covers:

Devices or systems intended for fixed installation, e.g. vehicle lighting, or for use at a permanent location, e.g. free-standing floor- or table lamps.

References relevant to classification in this subclass

This subclass/group does not cover:

| | |
|----------------|----------------------------|
| LED lamps | F21K |
| Candle holders | F21V 35/00 |
| Burners | F23D |

Informative references

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

| | |
|---|--|
| Details of lighting devices or systems or structural combination of lighting devices with other articles not otherwise provided for | F21V 33/00 |
| Electric light sources per se | H01J , H01K , H05B |

Special rules of classification within this subclass

- "Invention information" is identified with ECLA symbols, whereas "additional information" is identified with Indexing Code symbols, e.g. additional information of the kind of light source used in the lighting device is identified with [F21Y](#), e.g. additional information of some applications is identified with [F21W](#)

- Non-electric lighting devices or systems are classified in groups [F21S 11/00-F21S 15/00](#) only if a special adaptation related to the use of a non-electric light source is of interest

Synonyms and Keywords

| | |
|-----|----------------------|
| LED | Light Emitting Diode |
|-----|----------------------|

F21S 2/00

Systems of lighting devices, not provided for in main groups F21S4/00 to F21S10/00 or F21S19/00, e.g. of modular construction

Informative references

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

| | |
|--|---------------------------|
| Lighting devices or systems using a string or strip of light sources | F21S 4/00 |
| Lighting devices intended to be free standing | F21S 6/00 |

F21S 2/005

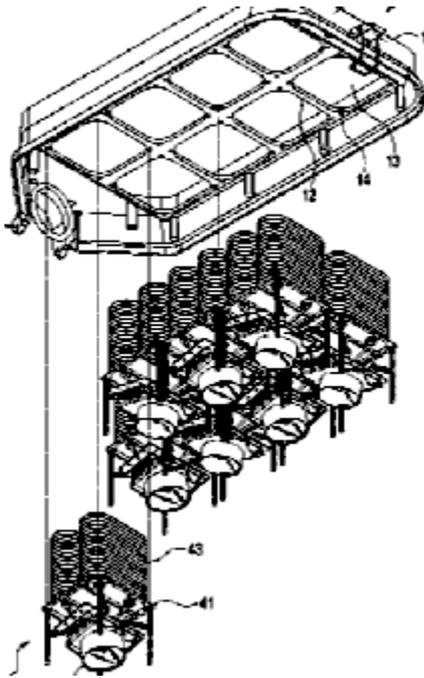
[N: of modular construction]

Definition statement

This subclass/group covers:

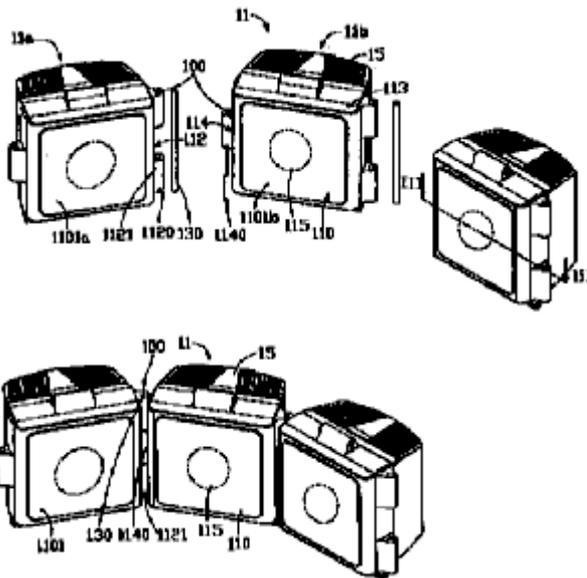
- System of identical lighting modules forming a lighting device with a plurality of light sources

Ex.: US2008080188



Ex.: EP2075505

Articulated light source assembly



Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

| | |
|--------|--|
| Module | A self-contained assembly of light emitting devices that can be installed as a unit, for insertion in a housing in order to form a lighting device, e.g. for street lighting |
|--------|--|

F21S 4/00

Lighting devices or systems using a string or strip of light sources

F21S 4/001

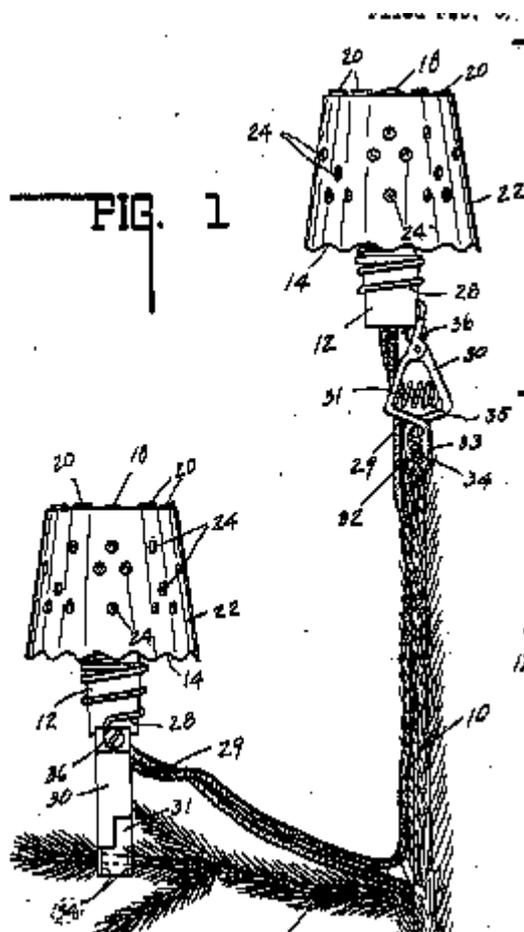
[N: using a string, i.e. lighting devices or systems, whereby the light sources are supported by loose electric cables , e.g. Christmas tree lights]

Definition statement

This subclass/group covers:

- String of lights for decorative purposes, e.g. for Christmas trees
- String of lights for illuminating working places
- String of lights interconnected by loose cables adapted for Christmas trees

Ex.: US1972687



References relevant to classification in this group

This subclass/group does not cover:

| | |
|--|----------------------------|
| String rigidly mounted on a frame or included in a resin | F21S 4/003 |
|--|----------------------------|

Informative references

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

| | |
|---|------------------------------|
| Christmas tree decorations | A47G 33/08 |
| Lamp holder for string of lights interconnected by loose cables | F21V 19/0005 |

Special rules of classification within this group

- Luminous garlands for Christmas trees, these documents should be given the Indexing Code [F21W 2121/04](#).

F21S 4/003

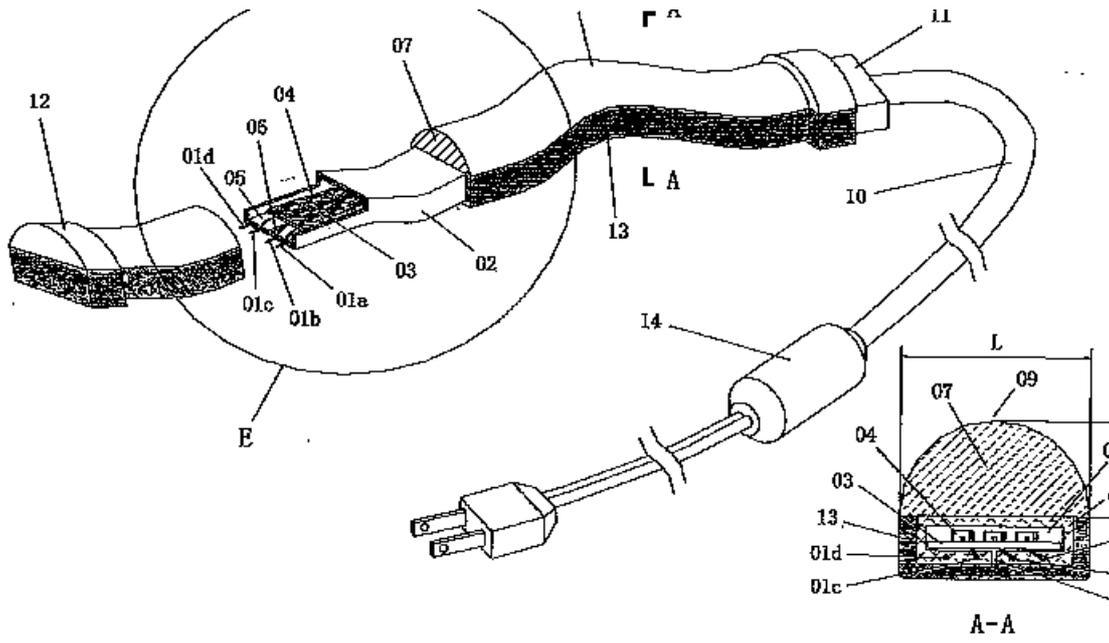
[Using a strips, i.e. lighting devices or systems, whereby the light sources are supported on a linear support]

Definition statement

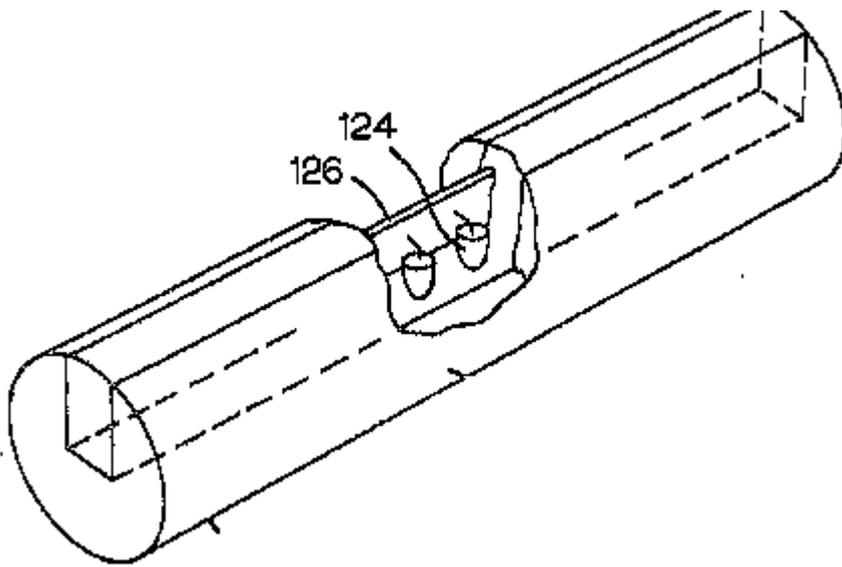
This subclass/group covers:

- Strip of lights for display case in shops
- Strip of lights for handrail or balustrade
- Strip of lights embedded in a flexible resin or housed within a flexible or rigid transparent hose, e.g. illuminated rope
- Flexible LED lighting rod device
- Decorative frames for holding string of light sources
- Strip of lights for under-shelf lighting

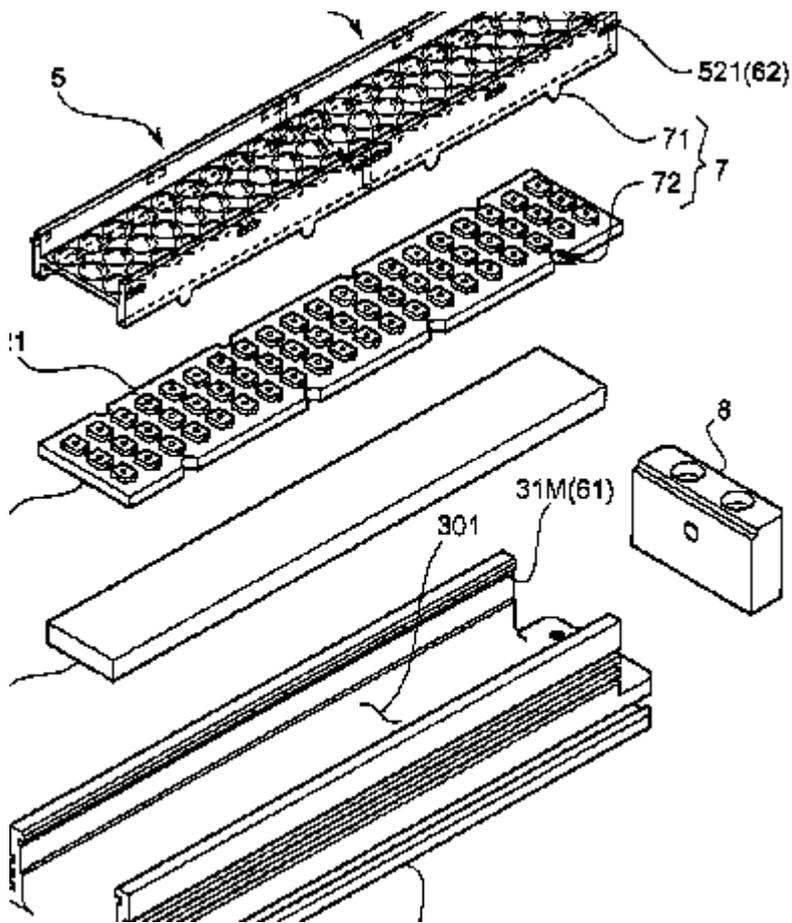
Ex.: WO2006081707 - Flexible strip with multiple light emitting diodes



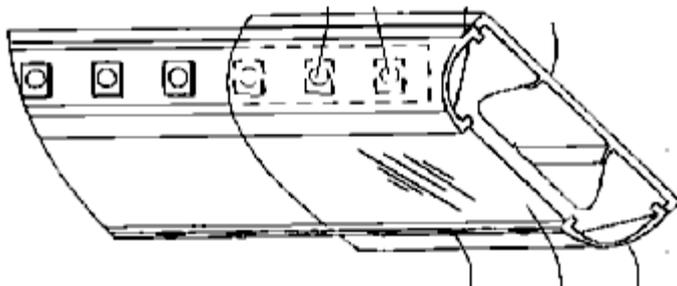
Ex.: WO2004070262 - Flexible illuminated device for simulating neon lighting



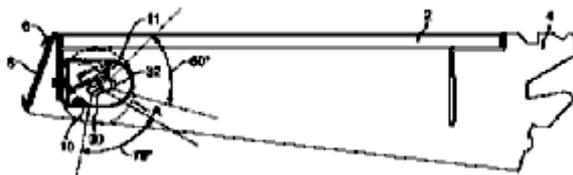
Ex.: EP2306068



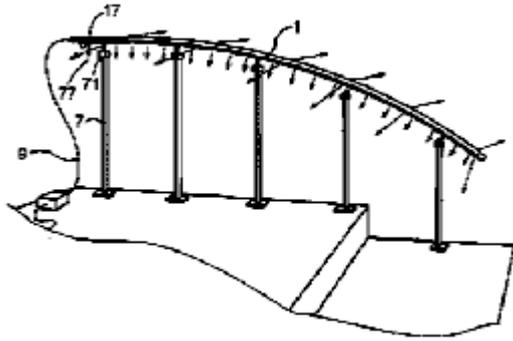
Ex.: WO2006067777 - Display cabinet illumination



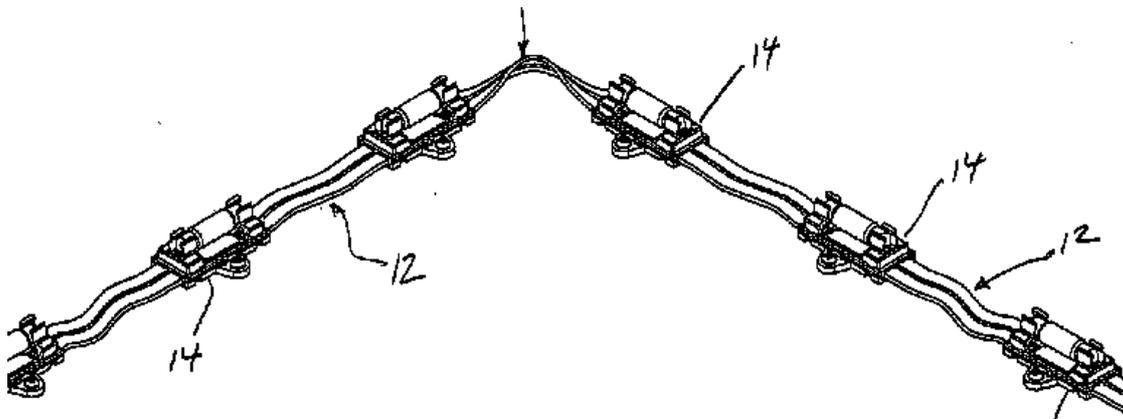
Ex.: US2011044030 - Under-shelf lighting system



Ex.: WO2011055488 - Strip of lights for handrail illumination



Ex.: US2008112169



References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|---------------------------|
| - Elongated LED (Light Emitting Diode) lamps with connectors for retrofitting | F21K 9/17 |
|---|---------------------------|

Informative references

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

| | |
|--|------------------------------|
| Lighting devices for show cases or show cabinets | A47F 3/001 |
| Stairways, ramps; Balustrades; Handrails | E04F 11/00 |
| Channel letter lighting system | G09F 13/0404 |
| Structural combinations of lighting devices with other articles, not | F21V 33/00 |

| | |
|-----------------------|--|
| otherwise provided fo | |
|-----------------------|--|

Special rules of classification within this group

- Strip of lights for display case in shops are classified with the appropriate Indexing Code, [F21W 2131/405](#) or ([F21W 2131/405](#) and [F21W 2131/305](#)) and forwarded for classification in [A47F 3/001](#). Sometimes also classified in [F21V 33/002](#) if attachable to a shelf. Forward for classification in [F25D 27/00](#) if intended for refrigerated display case.

F21S 4/008

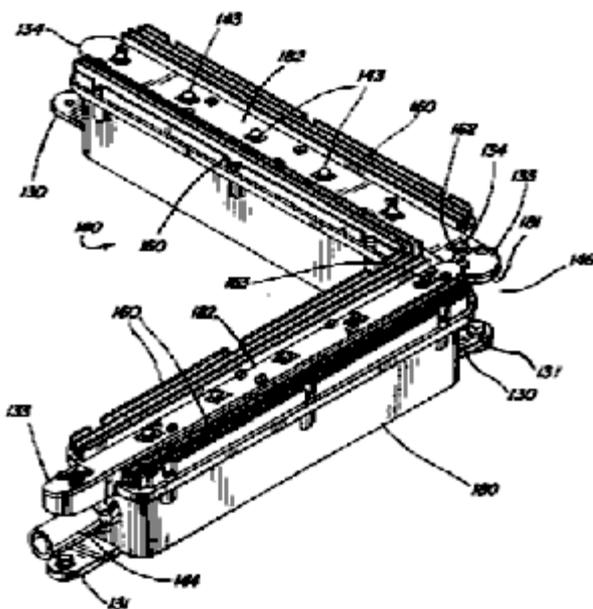
[N: the lighting device being rigid or comprising an elongated rigid housing, e.g. LED bars]

Definition statement

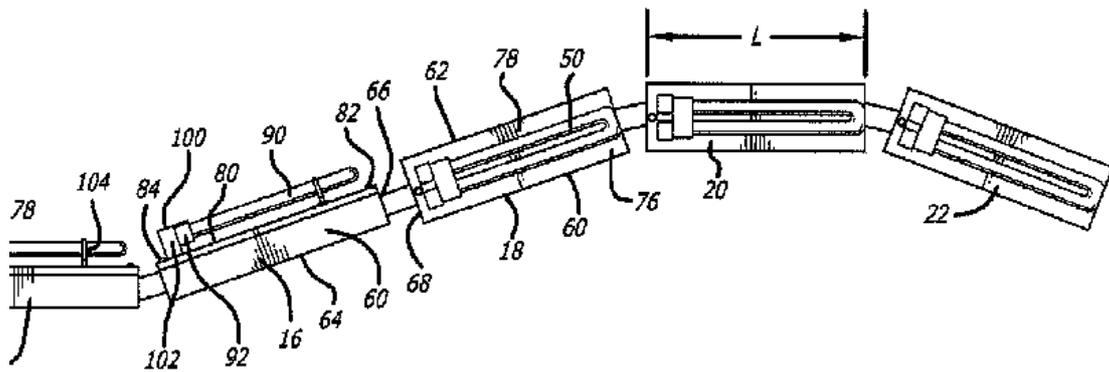
This subclass/group covers:

- Strips of lights, the lights being of elongated shapes
- Strips of elongated lighting devices

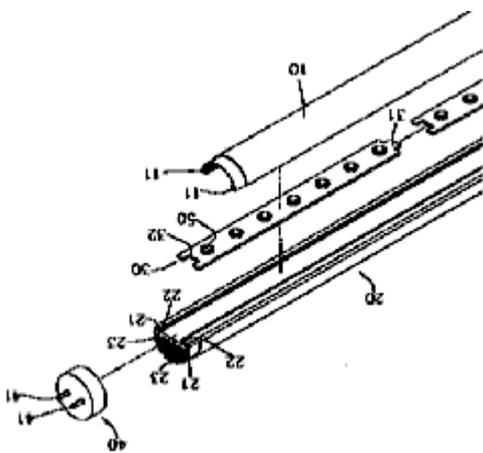
Ex.: US2009225546



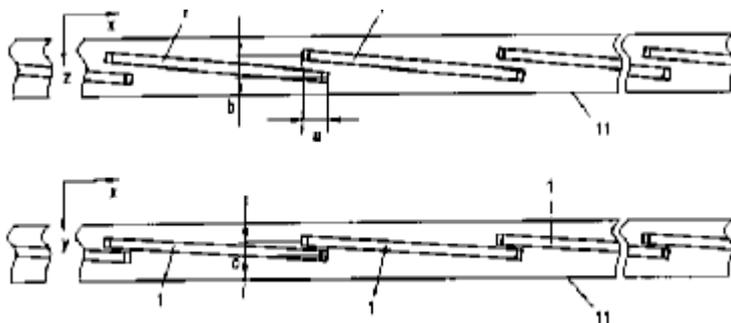
Ex.: US2003081413



Ex.: DE202010008114U - Printed circuit board with diodes connected end-to-end



Ex.: EP1847760



Informative references

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

| | |
|--|-----------------------------|
| Systems of lighting devices, e.g. of modular construction | F21S 2/00 |
| Supporting, suspending, or attaching arrangements for lighting devices for several lighting devices in an end-to-end arrangement | F21V 21/005 |

Special rules of classification within this group

In this group, it is desirable to add the Indexing Codes of [F21Y](#)

F21S 6/00

Lighting devices intended to be free standing, e.g. table lamp or floor lamp (F21S9/00, F21S10/00 take precedence)

Informative references

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

| | |
|--|----------------------------|
| Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply | F21S 9/00 |
| Lighting devices or systems producing a varying lighting effect | F21S 10/00 |
| Non-electric lighting devices or systems employing a point-like light source; Non-electric lighting devices or systems employing a light source of unspecified shape; Devices intended to be free-standing | F21S 13/12 |
| Shades for light sources | F21V 1/00 |

F21S 6/001

[N: being candle-shaped (with varying lighting effect of simulating flames F21S10/04; string of light source F21S4/00]

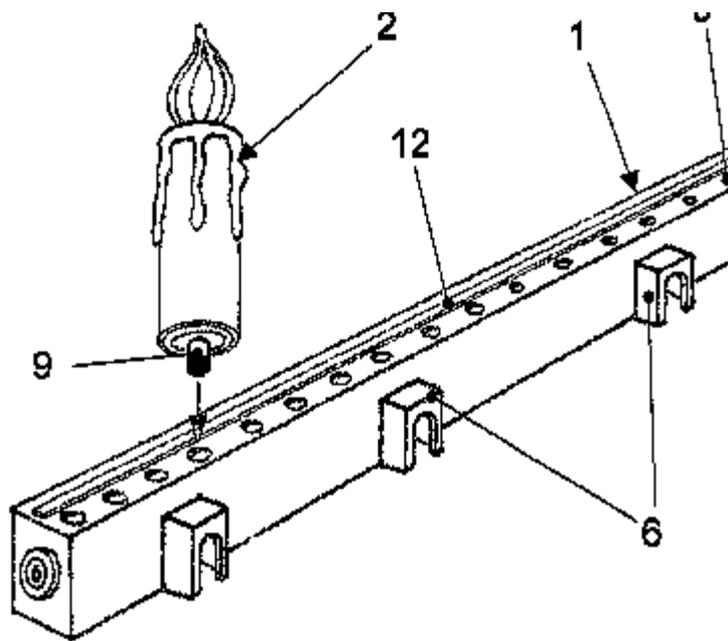
Definition statement

This subclass/group covers:

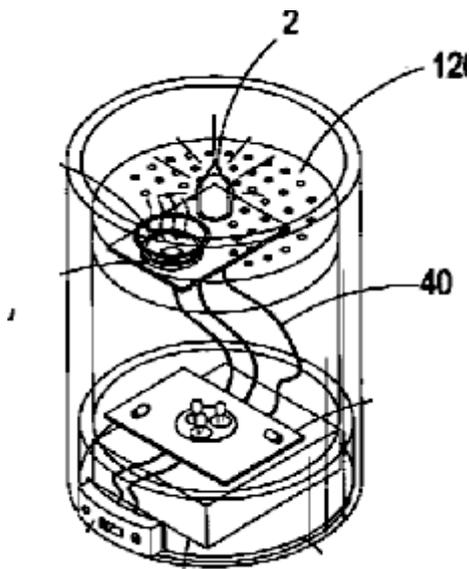
- individual electric candle lamps
- Single battery powered candle lamps

Warning: this group includes also lighting devices for fixed installation and electric lamps simulating candles and forming strips of lamps . Reorganisation is planned

Ex.: DE202009005470U



Ex.: US2010207538 - Single Candle Lamp



Informative references

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

| | |
|--|----------------------------|
| - Christmas tree decorations | A47G 33/08 |
| Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply | F21S 9/00 |

| | |
|--|--|
| Lighting devices intended for fixed installation and decorative purposes | F21S 8/00 in combination with F21W 2121/00 |
| Lighting devices or systems producing a varying lighting effect changing colour or simulating flames | F21S 10/00 , F21S 10/02 , F21S 10/04 |
| Candle holders | F21V 35/00 |

Special rules of classification within this group

In this group, it is desirable to add the Indexing Code [F21W 2121/00](#) when used for particular applications or related to systems for decorative purposes

F21S 8/00

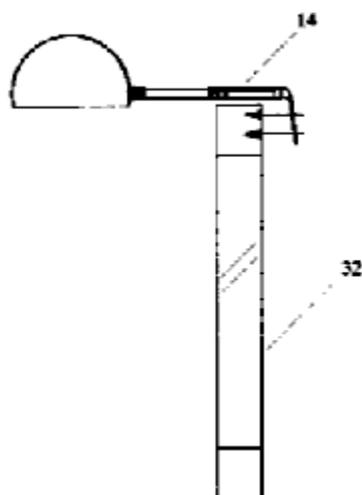
Lighting devices intended for fixed installation (F21S9/00, F21S10/00 take precedence; using a string or strip of light sources F21S4/00)

Definition statement

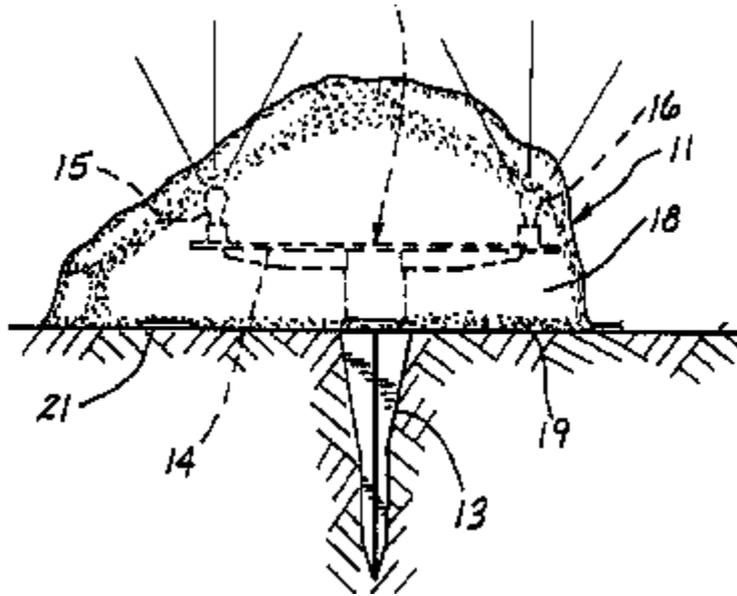
This subclass/group covers:

- Desk lamps not being a movable lighting device

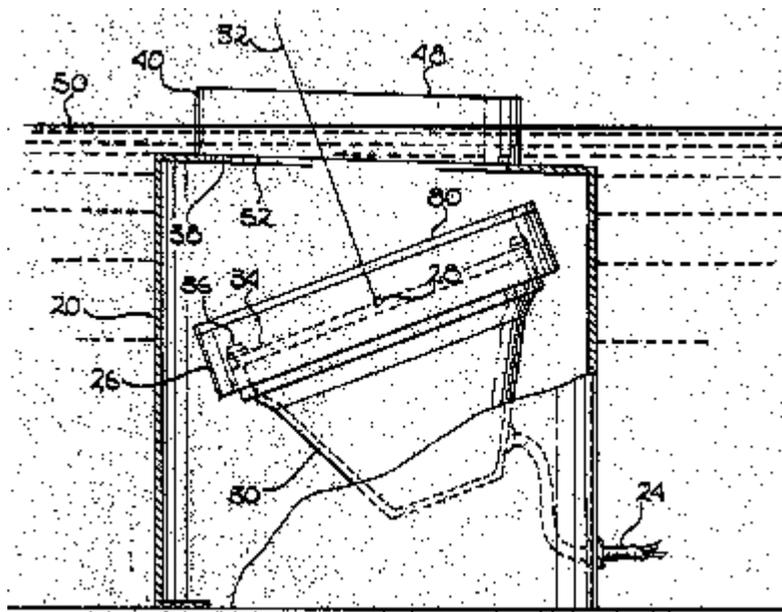
Ex.: US5934787 - Wall or picture frame mounted illuminating device



Ex.: US5769529 - Under-cabinet light fixture

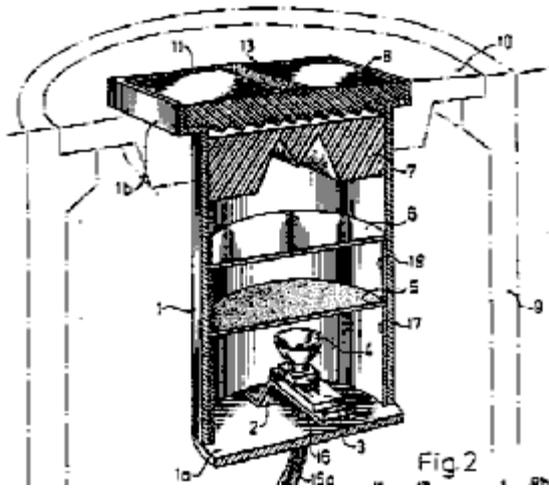


- Lighting devices for fountain lighting
 - Lighting devices for swimming pool lighting
- Ex.: US4661893 - Underwater lighting system

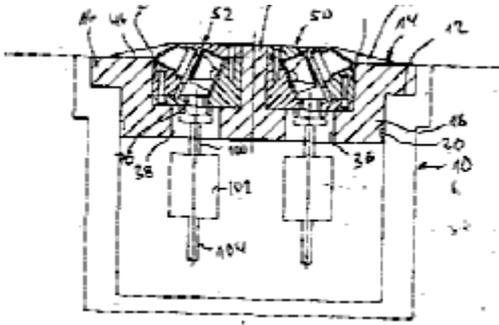


- Lighting devices for aquarium
 - Lighting devices for signalling other than those adapted to be mounted on a vehicle
 - Marker lights, e.g. navigation lights, airfield runway lights or beacon lights
- Ex.: WO8800157 - An airfield marker light ([B64F 1/20](#))

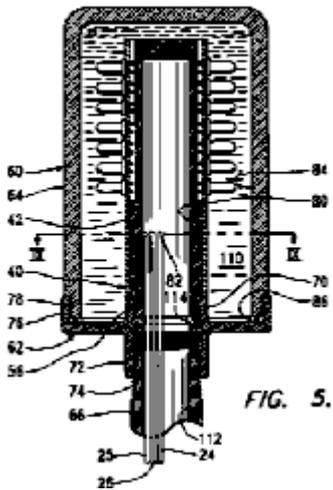
Fig 1



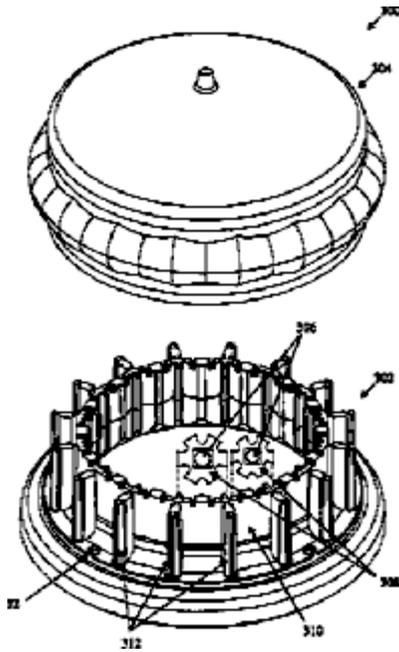
Ex.: DE20309405U - Underground corridor lights for airport runways.



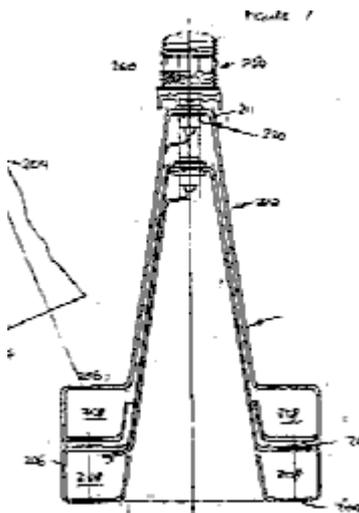
Ex.: US5890794



Ex.: WO2011029127 - Lighting device for guiding a vessel or aircraft

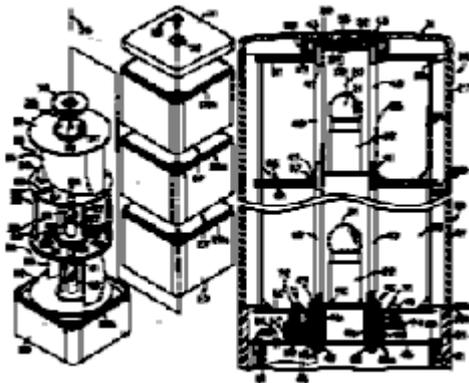


Ex.: EP0330392 - Illuminated warning cone ([E01F 9/0122](#), [B60Q 7/00](#))



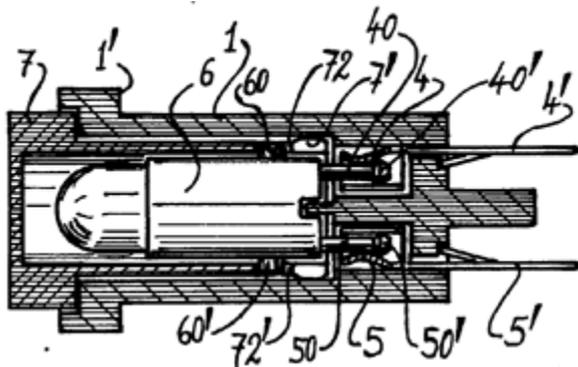
- Traffic lights; Pillar shaped lights; Lights arranged on top of each other

Ex.: JP6314509 - Signalling lights on top of each other

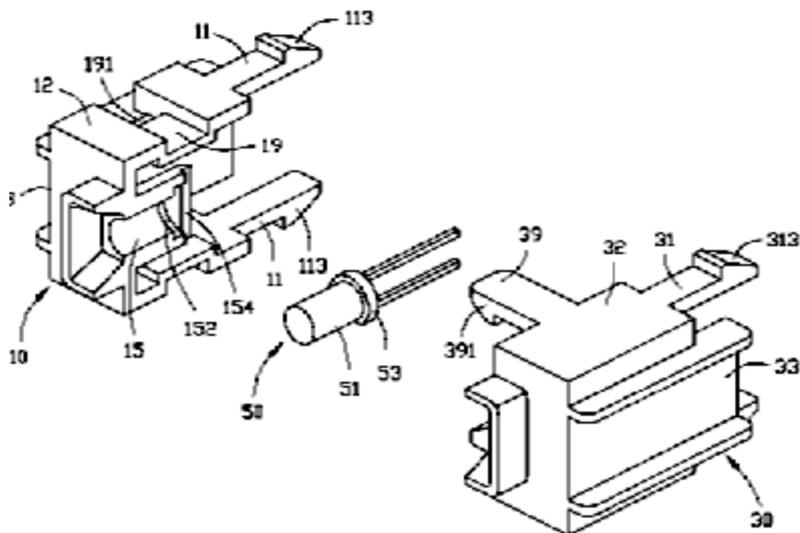


- Indicator lights, e.g. for mounting on control panels or dashboards

Ex.: Indicator

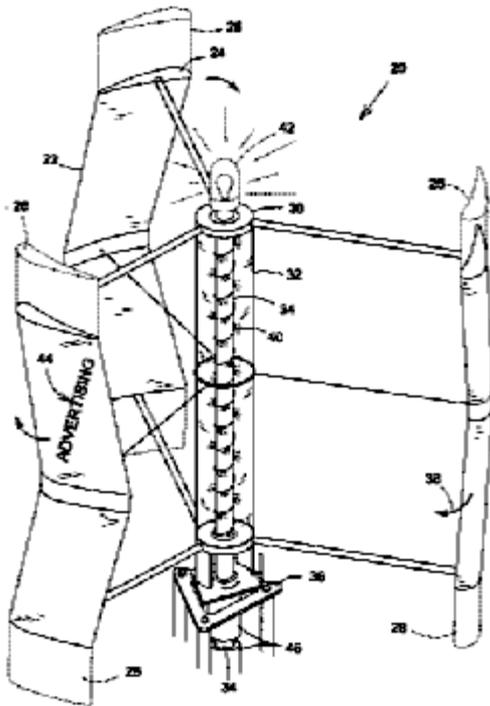


Ex.: US2008135690 - Mounting apparatus for indicator device

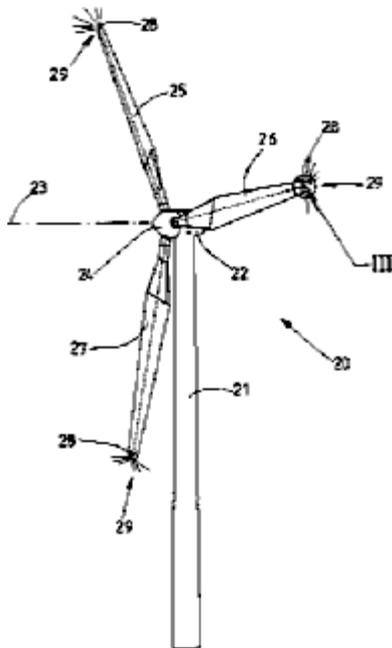


- Lamps on antennas or powerlines or aerial markers

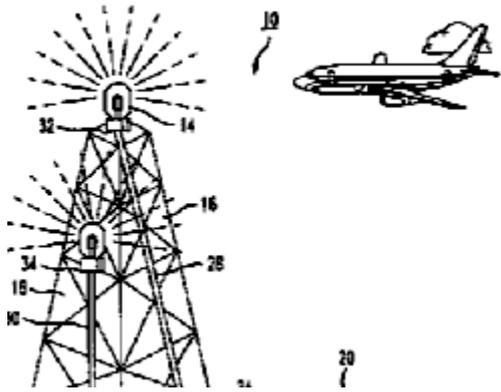
Ex.: US2009086465 - Wind-powered generator and blade therefor



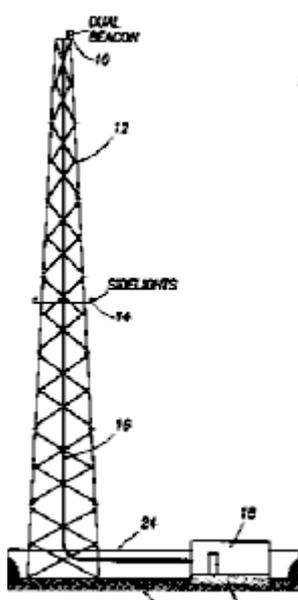
Ex.: DE10348994 - Wind powered generator with aircraft warning lights



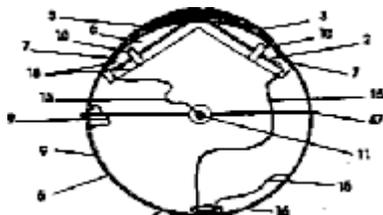
Ex.: US6762695 - Radio tower lighting system



Ex.: US6070994 - Dual beacon for marking obstructions

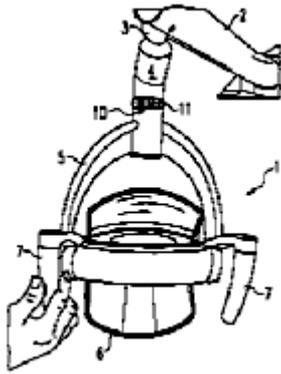


Ex.: US5361018 - Intermediate voltage cable marker with enhanced conspicuity



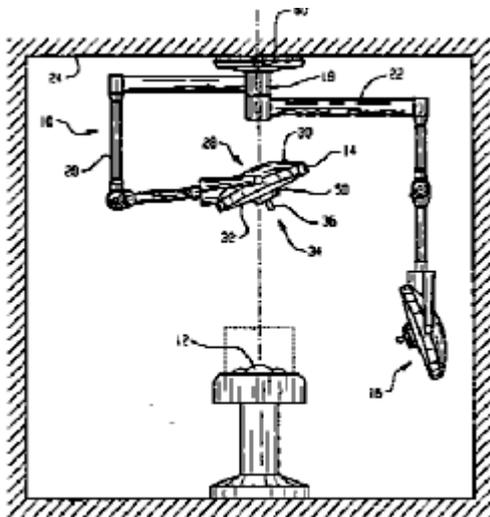
- Lighting devices for illuminating an indoor working place
- Lighting devices for dentistry

Ex.: DE102008023840 - Dental lamp



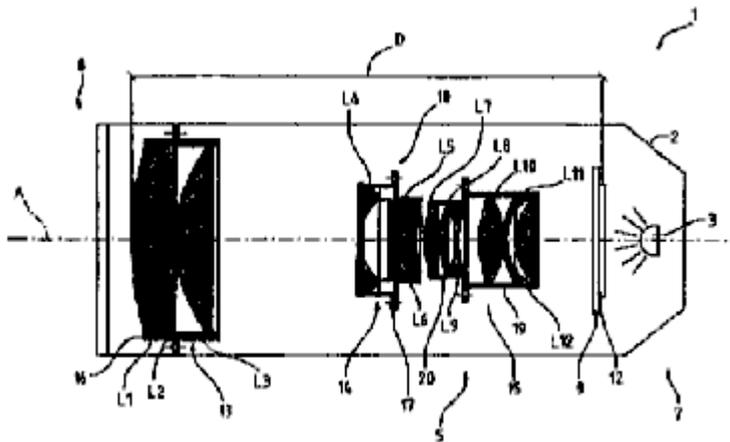
- Lighting devices for medicine or surgery, i.e. fixed installation lighting apparatus in surgery rooms to light the surgeon's working places

Ex.: WO03072995 - Surgical lighting system

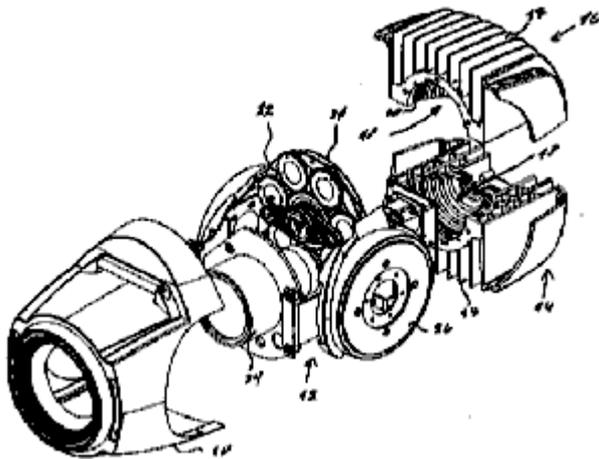


- Lighting devices for stage, circus, studio, theatre or indoor arena lighting

Ex.: US2010321940 - Washlight stage lighting fixture

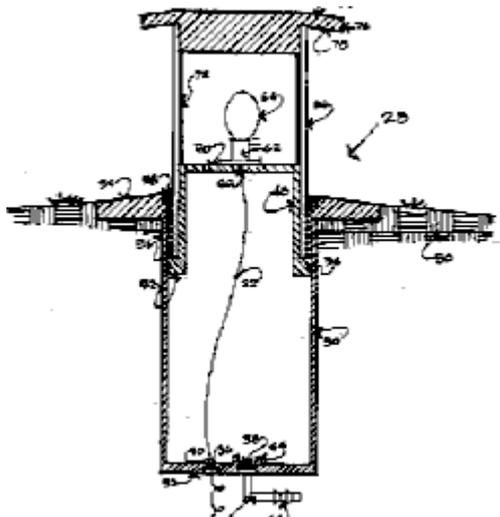


Ex.: EP1898145 - Moving head projector for use in exhibitions, theatres or shops

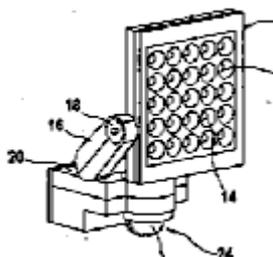


- Lighting devices for outdoor lighting, e.g. of tunnels, building, gardens, arenas, sport fields or gas stations

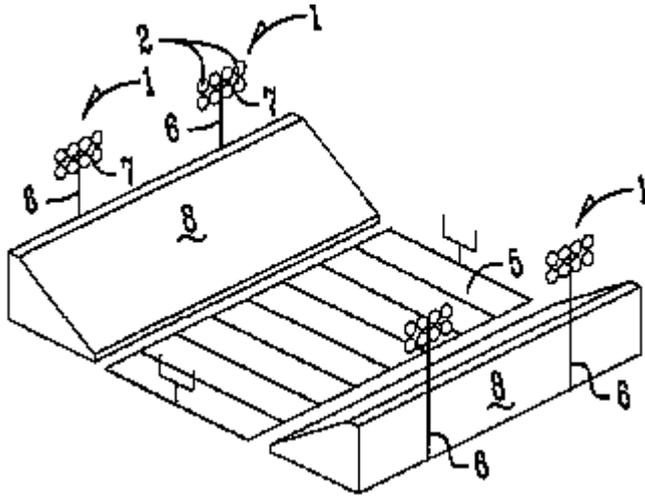
Ex.: US5683176 - Garden lighting device attachable to ground



Ex.: EP2107295 - Wall lighting device with motion detector



Ex.: US2006187663 - Sports lighting fixture



- Lighting devices for lighting roadways or streets not provided in [F21S 8/06](#), [F21S 8/08](#), i.e. lighting devices for which the supports of the lighting devices are not disclosed

References relevant to classification in this group

This subclass/group does not cover:

- When related to closely lighting a limited area:

| | |
|---|------------------------------|
| Illuminating devices for liquid crystal display | G02F 1/13357 |
| Signs, boards or panels, illuminated from behind the insignia | G09F 13/04 |

- When related to lighting devices for fountain lighting or lighting devices for swimming pool lighting:

| | |
|---|-----------------------------|
| Structural combinations of lighting devices with sanitary equipments, e.g. shower head, water tap | F21V 33/004 |
|---|-----------------------------|

- When related to lighting devices for signalling other than those adapted to be mounted on a vehicle

| | |
|--|-----------------------------|
| Arrangements or adaptations of optical signalling or lighting devices, the devices being mounted on a shaft and primarily intended to indicate the vehicle | B60Q 1/2657 |
|--|-----------------------------|

| | |
|--|---------------------------|
| Triangle warning arrangements | B60Q 7/00 |
| Road hazard warning devices, e.g. for safety barrier systems | E01F 9/00 |

- When related to lighting devices for stage, circus, studio, theatre or indoor arena lighting

| | |
|---|----------------------------|
| Details of colour television system; Projection devices for colour picture display | H04N 9/31 |
| Apparatus or arrangements for projecting photographs; Projectors or projection-type viewers | G03B 21/00 |

Informative references

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

| | |
|--|----------------------------|
| Systems of lighting devices, e.g. of modular construction | F21S 2/00 |
| Lighting devices or systems using a string or strip of light sources | F21S 4/00 |
| Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply | F21S 9/00 |
| Lighting devices or systems producing a varying lighting effect | F21S 10/00 |
| Details of lighting devices | F21V |

- When related to closely lighting a limited area:

| | |
|--|------------------------------|
| Lighting devices intended to be free standing, e.g. desk lamps | F21S 6/00 |
| Structural combination of lighting devices with furniture | F21V 33/0012 |

- When related to light inside a domestic oven:

| | |
|--|-----------------------------|
| Bakers'ovens; Means for illuminating ovens | A21B 3/10 |
| Illumination for oven cavities | F24C 15/008 |
| Aspects relating to lighting devices in the microwave cavity | H05B 6/6444 |

- When related to lighting devices for decorative purposes

| | |
|---|----------------------------|
| - Christmas tree decorations | A47G 33/08 |
| Lighting devices or systems producing a varying lighting effect | F21S 10/00 |
| Designs or pictures characterised by special or unusual light effects | B44F 1/00 |
| String of lamps connected with electric wires | F21S 4/001 |
| Electric candle lights | F21S 6/001 |

- When related to lighting devices for fountain lighting or lighting devices for swimming pool lighting:

| | |
|---|-----------------------------|
| Spaying apparatus | B05B |
| Lighting devices or systems producing a varying lighting effect using liquids, e.g. water | F21S 10/002 |
| Water projection screens | G03B 21/30 |

- When marker lights, e.g. navigation lights, airfield runway lights or beacon lights

| | |
|-----------------------------------|---------------------------|
| Light signals for guiding railway | B61L 5/18 |
|-----------------------------------|---------------------------|

| | |
|--|-----------------------------|
| Arrangement of optical beacons for ground or aircraft-carrier-deck-installations | B64F 1/20 |
| Arrangement of road signs or traffic signals three dimensional free-standing devices, e.g. traffic cones, foldable or inflatable devices | E01F 9/0122 |
| Illuminated marker posts or bollards | E01F 9/0165 |

- When traffic lights or pillar shaped lights or lights arranged on top of each other

| | |
|---|-----------------------------|
| Illuminated marker posts or bollards | E01F 9/0165 |
| Traffic light control systems for road vehicles | G08G 1/095 |

- When indicator lights, e.g. for mounting on control panels or dashboards

| | |
|------------|----------------------------|
| Dashboards | B60K 37/00 |
|------------|----------------------------|

- When lamps on antennas or powerlines or aerial markers

| | |
|--|----------------------------|
| Wind turbines | F03D 11/00 |
| Means for the lighting or illuminating of aerials, e.g. for purpose of warning | H01Q 1/06 |

- When lighting devices for dentistry

| | |
|--|------------------------------|
| Instruments, implements or accessories for surgery or diagnosis; Devices for illuminating a surgical field | A61B 19/00N2 |
|--|------------------------------|

- When lighting devices for medicine or surgery

| | |
|-------------------------------------|------------------------------|
| Devices for illuminating a surgical | A61B 19/00N2 |
|-------------------------------------|------------------------------|

| | |
|-------|--|
| field | |
|-------|--|

- When related to lighting devices for stage, circus, studio, theatre or indoor arena lighting

| | |
|--|----------------------------|
| Lighting devices or systems producing a varying lighting effect | F21S 10/00 |
| Details of lighting devices for changing the characteristics or distribution of the light emitted by adjustment of parts | F21V 14/00 |
| Adjustable mounting of a lighting device | F21V 21/14 |

Special rules of classification within this group

In this group, it is desirable to add the Indexing Codes of subclasses [F21W 2131/00](#) and/or classification in [F21V 33/00](#) when applicable,

- When related to closely lighting a limited area like a working place: [F21W 2131/402](#), lighting a painting: [F21W 2131/304](#)
- When related to lighting devices for lighting inside a domestic oven it is desirable to add the Indexing Codes of [F21W 2131/307](#) -This subject-matter should not to be classified in [F21V 33/0044](#)
- When related to lighting devices for lighting the interior of a closed vessel, e.g. a pressure tank it is desirable to add the Indexing Code [F21W 2131/411](#)
- When related to lighting devices for decorative purposes it is desirable to add the Indexing Codes of [F21W 2121/00](#)
- When related to lighting devices for fountain lighting it is desirable to add the Indexing Code [F21W 2121/02](#) - Documents classified here usually do not get classification in [F21S 8/00W](#), [F21S 8/02](#) or [F21S 8/04](#)
- When related to lighting devices for swimming pool lighting it is desirable to add the Indexing Code of [F21W 2131/401](#) - Documents classified here usually do not get classification in [F21S 8/00W](#), [F21S 8/02](#) or [F21S 8/04](#)

When related to lighting devices for aquarium it is desirable to add the Indexing Code of [R21W 131/08](#) - Documents classified here usually do not get classification in [F21S 8/00W](#), [F21S 8/02](#) or [F21S 8/04](#)

When related to lighting devices for signalling other than those adapted to be

mounted on a vehicle it is desirable to add the Indexing Code of [F21W 2111/00](#)

- When marker lights, e.g. navigation lights, airfield runway lights or beacon lights

it is desirable to add the Indexing Code of [F21W 2111/06](#) or [F21W 2111/02](#)

- When traffic lights or pillar shaped lights or Lights arranged on top of each other it is desirable to add the Indexing Code of [F21W 2111/02](#)

- When indicator lights, e.g. for mounting on control panels or dashboards it is desirable to add the Indexing Code of [F21W 2111/00](#)

- When lamps on antennas or powerlines or aerial markers it is desirable to add the Indexing Code [F21W 2111/00](#) or [F21W 2111/06](#)

- When lighting devices for illuminating an indoor working place it is desirable to add the Indexing Code [F21W 2131/402](#)

- When lighting devices for dentistry it is desirable to add the Indexing Code [F21W 2131/202](#)

- When lighting devices for medicine or surgery it is desirable to add the Indexing Code [F21W 2131/205](#)

- When lighting devices for stage, circus, studio, theatre or indoor arena lighting it is desirable to add the Indexing Code [F21W 2131/406](#) - When the device uses variable lighting effect a class should be given also in [F21S 10/00](#)

When lighting devices for outdoor lighting, e.g. of tunnels, building, gardens, arenas, sport fields or gas stations it is desirable to add the Indexing Code of [F21W 2131/10](#)

When lighting devices for lighting roadways or streets not provided in [F21S 8/06](#), [F21S 8/08](#) it is desirable to add the Indexing Code [F21W 2131/103](#)

F21S 8/003

[N: Searchlights, i.e. outdoor lighting devices producing powerful beam of parallel rays, e.g. for military or attraction purposes]

References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|---------------------------|
| Searchlight mounted on a vehicle | B60Q 1/24 |
| Projector or searchlight on land vehicles | B60P 3/18 |

Informative references

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

| | |
|---|------------------------------|
| Investigating or analysing materials by the use of optical means; Specially adapted optical and illumination features | G01N 21/8806 |
|---|------------------------------|

F21S 8/006

[N: Solar simulators, e.g. for testing photovoltaic panels]

Informative references

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

| | |
|---|------------------------------|
| Arrangements of light sources specially adapted for photometry; standard sources, also using luminescent or radioactive material- | G01J 1/08 |
| Arrangements for testing electric properties of solar cells. | G01R 31/26B2 |

F21S 8/02

[N: of recess-mounted type, e.g. downlighters]

References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|-------------------------------|
| Lighting devices intended for fixed installation specially adapted for vehicles | F21S 48/00 |
| Recessed wall lighting device for swimming pools | F21W 2131/401 |

Informative references

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

| | |
|---|----------------------------|
| Ceilings with means for hanging lighting fixtures or other appliances to the framework of the ceiling | E09B 9/00D |
|---|----------------------------|

F21S 8/03

[N of surface-mounted type (F21S8/02, F21S8/04 take precedence; details of wall bases F21V21/02)]

F21S 8/031

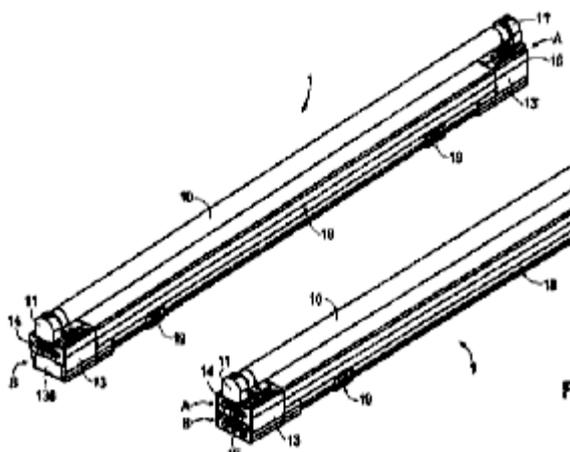
[N: the device consisting essentially only of a light source holder with an exposed light source, e.g. a fluorescent tube]

Definition statement

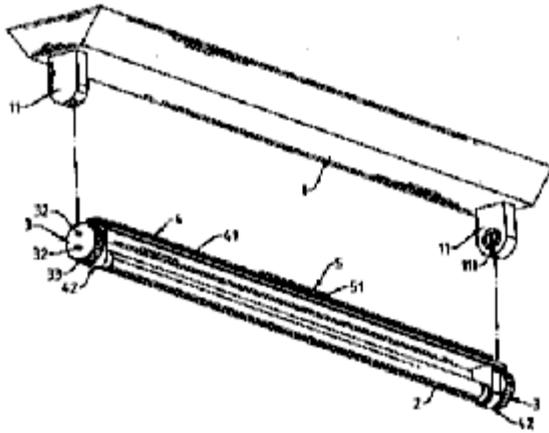
This subclass/group covers:

- Elongated light source holding device for which the light source is mounted externally

Ex.: EP1433997



Ex.: US20110081806



Informative references

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

| | |
|---|-----------------------------|
| Fastening of light sources or lamp holders of straight tubular light sources, e.g. straight fluorescent tubes | F21V 19/008 |
| Line connectors; current collectors | H01R |

Special rules of classification within this group

In this group, it is desirable to add the Indexing Code [F21Y 2103/00](#)

F21S 8/032

[N: the surface being a floor or like ground surface, e.g. pavement]

References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|-----------------------------|
| Free standing lamps on a floor | F21S 6/00 |
| Fixed lighting devices of recess mounted types in a floor | F21S 8/022 |
| Illuminated carpets, stairs | F21V 33/006 |

F21S 8/033

[N: the surface being a wall or like vertical structure, e.g. building façade]

F21S 8/035

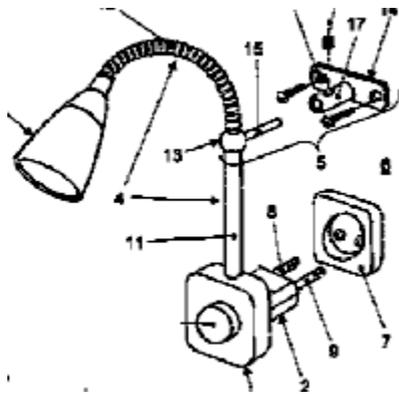
[N: by means of plugging into a wall outlet, e.g. night lamp]

Definition statement

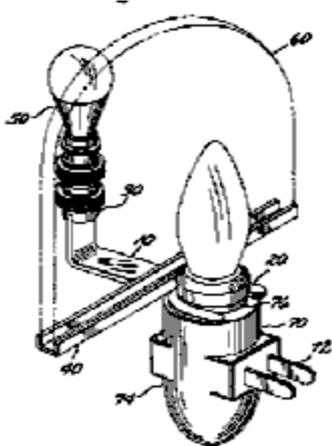
This subclass/group covers:

Lighting devices which are intended to be plugged into a power outlet

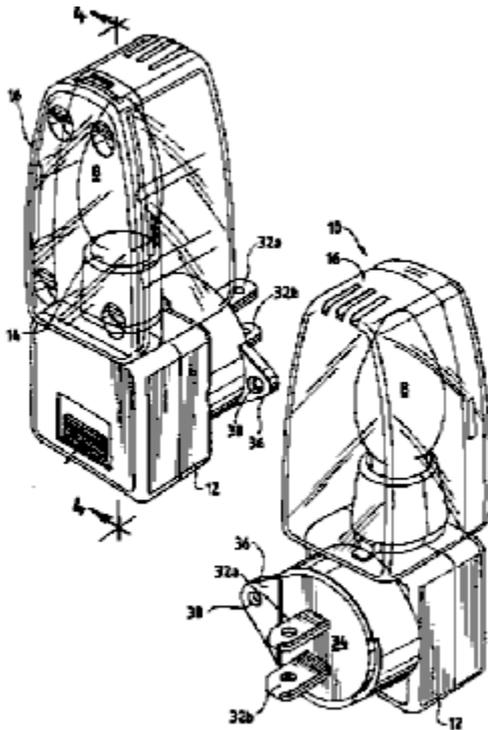
Ex.: DE202009014387U



Ex.: US5887802 - Night light



Ex.: US5727953



Informative references

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

| | |
|---|-----------------------------|
| Apparatus for deodorisation of air using gaseous or vaporous substances using substances evaporated in the air by heating or combustion | A61L 9/03 |
| Coupling devices in which a holder is adapted for supporting apparatus to which its counterpart is attached | H01R 33/00 |
| Structural association of built-in electrical components with a built-in light source | H01R 13/717 |

Special rules of classification within this group

These plugs in devices are generally not to be classified in [F21V 21/002](#) nor [F21V 21/08](#)

F21S 8/037

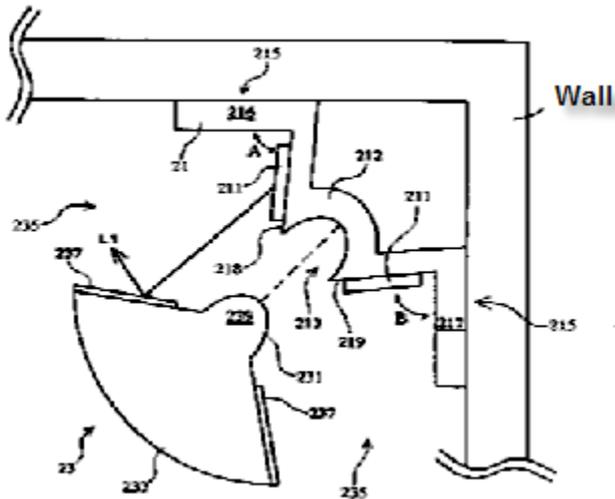
[N: for mounting in a corner, i.e. between adjacent walls or wall and ceiling]

Definition statement

This subclass/group covers:

- Corner lighting device

Ex.: US2008205054 - Indirect wall mounted lighting apparatus



F21S 8/04

intended only for mounting on a ceiling or like overhead structure (F21S8/02 takes precedence)

References relevant to classification in this group

This subclass/group does not cover:

| | |
|--|----------------------------|
| Lighting device essentially made of an elongated section for suspending at least one linear light source | F21S 8/033 |
|--|----------------------------|

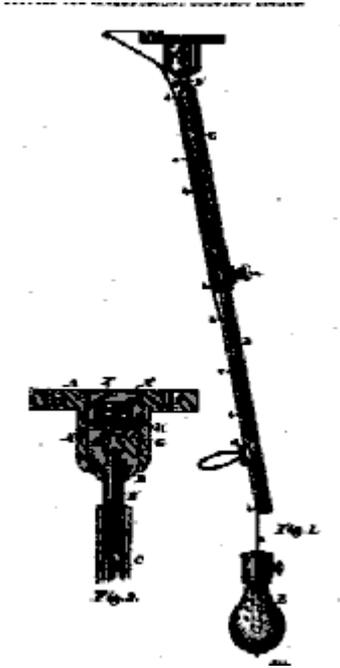
F21S 8/06

by suspension

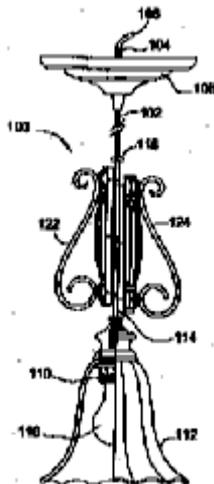
Definition statement

This subclass/group covers:

Ex.: US394680



Ex.: US2011101181 - Hanging light fixture



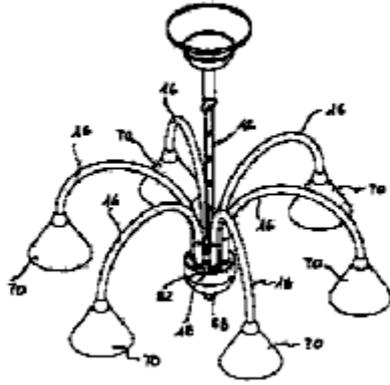
F21S 8/065

[N: multi-branched, e.g. chandelier]

Definition statement

This subclass/group covers:

Ex.: EP2357394 - Ceiling chandelier



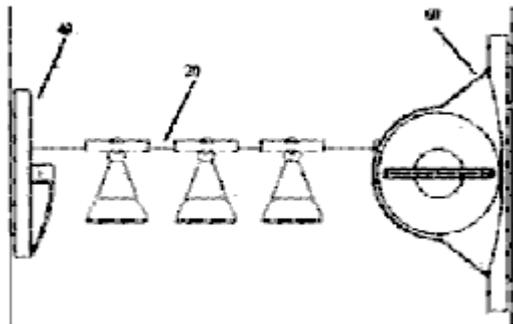
F21S 8/068

from a stretched wire

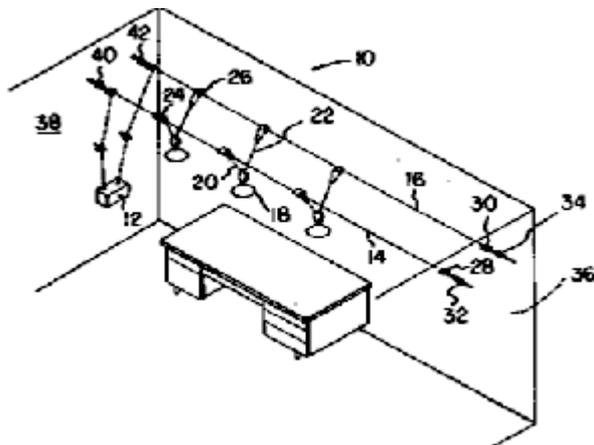
Definition statement

This subclass/group covers:

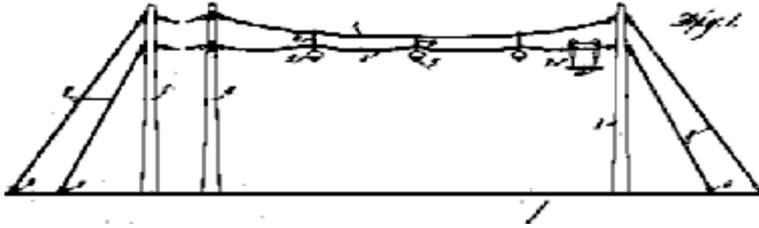
Ex.: US2008175011 - A suspended cable lighting system



Ex.: US5158360



Ex.: US3033978 - Catenary lighting apparatus



Informative references

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

| | |
|--|-----------------------------|
| Details of lighting devices suspended from a cable or suspension lines | F21V 21/008 |
|--|-----------------------------|

F21S 8/08

with standard, [N: e.g. street lamp]

References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|----------------------------|
| Free standing lighting devices with a lamp housing distant from the floor or the ground via a support, e.g. standing lamp for ambient light | F21S 6/005 |
| Spring-loaded poles fixed at both ends | F21V 21/13 |

Informative references

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

| | |
|---------------------------------------|----------------------------|
| Lighting device from a stretched wire | F21S 8/068 |
|---------------------------------------|----------------------------|

Special rules of classification within this group

In this group, it is desirable to add the Indexing Codes of [F21W 2131/10](#) whenever applicable

Synonyms and Keywords

| | |
|----------|---|
| Standard | Mast (De, En), pole (En), pillar (En), stem (En), Pfosten (De), Pfahl (De), Pfeiler (De), Stenge (De), mât (Fr), pylone (Fr), pieu (Fr), jalon (Fr), tuteur (Fr), pilier (Fr), poteau (Fr), tige (Fr) |
|----------|---|

F21S 8/10

specially adapted for vehicles

Special rules of classification within this group

This group must not to be used. Documents have to be classified in the group of [F21S 48/00](#) instead.

F21S 9/00

Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply

Informative references

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

| | |
|--|---------------------------|
| - Electric portable lighting devices with self-contained electric batteries or cells | F21L 4/00 |
|--|---------------------------|

F21S 9/02

the power supply being a battery or accumulator

Informative references

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

| | |
|---|---------------------------|
| - Alarm systems using visible light sources | G08B 5/36 |
| Alarm systems using flashing light | G08B 5/38 |
| Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries | H02J 7/00 |

| | |
|--|-----------------------------|
| Batteries forming a whole with or incorporated in or fixed to the electronic appliance | H01M 2/1055 |
|--|-----------------------------|

F21S 9/03

rechargeable by exposure to light

Definition statement

This subclass/group covers:

- Lighting devices comprising solar cells and rechargeable batteries or capacitors
- Lighting devices using solar cells to get electric power supply from an artificial light, i.e. not using solar energy
- Lighting devices having nor power supply or accumulator but directly powered by the energy produced by solar cells, i.e. device not using electricity storing means

Relationship between large subject matter areas

- Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries are not covered by this group, they could be found in [H02J 7/00](#)

Special rules of classification within this group

- Contrary to the title, documents having no power supply nor accumulator but directly powered by the electric energy produced by solar cells, i.e. device not using electricity storing means, are classified in this group

Synonyms and Keywords

| | |
|------------|---|
| Solar cell | Photovoltaic cell (En), cellule photovoltaïque (Fr), panneau solaire (Fr), Solarpaneel (De) |
|------------|---|

F21S 9/04

the power supply being a generator

Definition statement

This subclass/group covers:

- Lighting devices with power supply being a wind turbine
- Lighting devices with power supply being manual actuators being an electric generator

Informative references

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

| | |
|---------------------------|----------------------|
| - Dynamo-electric machine | H02K |
|---------------------------|----------------------|

F21S 10/00

Lighting devices or systems producing a varying lighting effect

Informative references

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

| | |
|--|------------------------------|
| Christmas tree decorations | A47G 33/08 |
| Designs or pictures characterised by special or unusual light effects | B44F 1/00 |
| Decorative lighting devices | F21W 2121/00 |
| Changing the characteristics or distribution of the light emitted by adjustment of parts | F21V 14/00 |

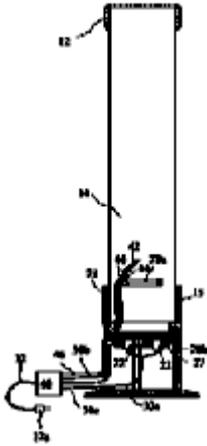
F21S 10/002

[N: using liquids, e.g. water]

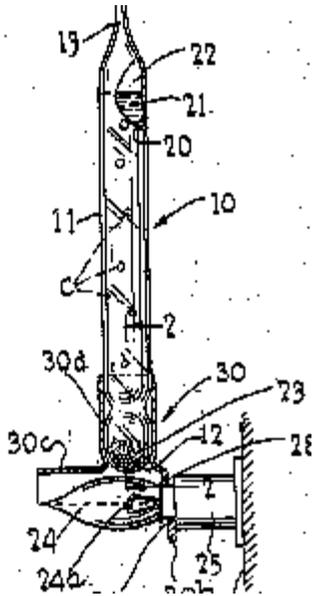
Definition statement

This subclass/group covers:

Ex.: US2011050104 or US2378934 - Decorative lamp with a lighted water container/reservoir.



or



References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|--|
| Decorative lighting devices intended for fixed installation for fountain lighting; for swimming pool lighting | F21W 2121/02 , F21W 2131/401 |
|---|--|

Informative references

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

| | |
|--|-----------------------------|
| Lighting devices structurally combined with water taps or shower heads | F21V 33/004 |
|--|-----------------------------|

Special rules of classification within this group

- In this group, it is desirable to add the Indexing Code of [F21W 2121/00](#), when the varying lighting effect is decorative

F21S 10/005

[N: using light guides (light guides specially adapted for lighting devices G02B6/0001)]

References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|-----------------------------|
| Light guides specially adapted for lighting devices | G02B 6/0001 |
|---|-----------------------------|

F21S 10/02

changing colors [N: (F21S10/002 to F21S10/007, F21S10/04 take precedence)]

References relevant to classification in this group

This subclass/group does not cover:

| | |
|--|-----------------------------|
| Lighting devices or systems producing a varying lighting effect using liquids | F21S 10/002 |
| Lighting devices or systems producing a varying lighting effect using rotating disks | F21S 10/007 |
| Lighting devices or systems producing a varying lighting effect simulating flames | F21S 10/04 |

Informative references

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

| | |
|---|---------------------------|
| Light filter for producing coloured light | F21V 9/08 |
|---|---------------------------|

F21S 10/04

simulating flames

Relationship between large subject matter areas

[F24C 7/004](#): Stoves or ranges heated by electrical energy (electric heating elements or arrangements [H05B](#)); Stoves ([F24C 7/02](#) to [F24C 7/10](#) take precedence) simulating flames

Auxiliaries for producing special effects on stages, or in circuses or arenas are classified in [A63J 5/023](#), but illuminating arrangements therefor are classified in [F21W 2131/406](#) - [A63J 5/02](#) further covers arrangements for making stage effects and auxiliary stage appliances for making fire and flame simulations

Informative references

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

| | |
|----------------------------|----------------------------|
| - Electric candle lamps | F21S 6/001 |
| - Stoves simulating flames | F24C 7/004 |

Special rules of classification within this group

In this group, it is desirable to add the Indexing Code of [F21W 2121/00](#)

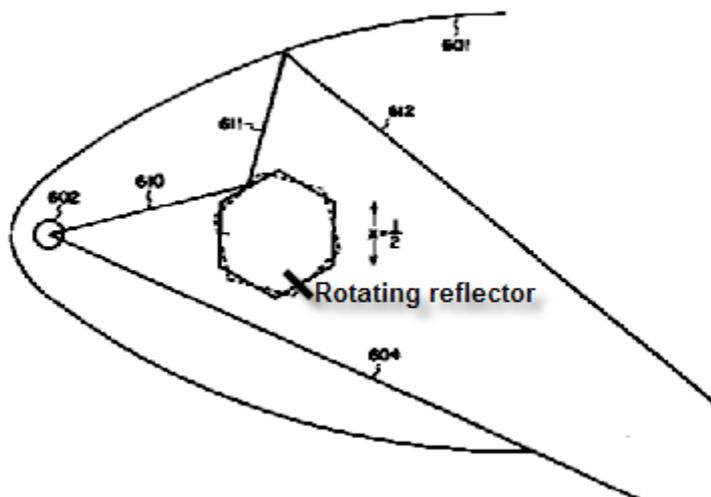
F21S 10/06

flashing, e.g. with rotating reflector or light source

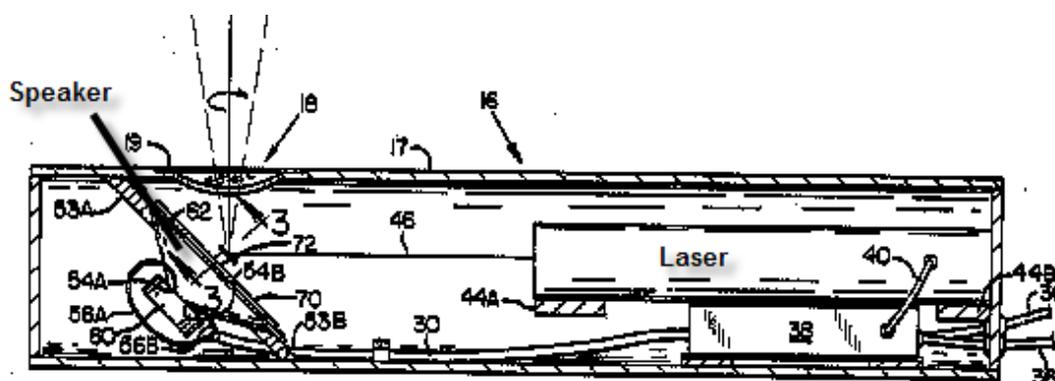
Definition statement

This subclass/group covers:

Ex.: US5954416 - Rotating reflector flashlight



Ex.: US4887197 - Apparatus for generating light patterns responsive to audio frequency input signals



Informative references

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

| | |
|--|---|
| Changing the characteristics or distribution of the light emitted by movement of light sources | F21V 14/02 F21V 14/04 |
| Changing the characteristics or distribution of the light emitted by movement of reflectors | F21V 14/04 |

F21S 11/00

Non-electric lighting devices or systems using daylight (building arrangements in general, building details E04; windows or the like E06B

Definition statement

This subclass/group covers:

Ex.: DE102008055857 - Daylight deflecting device for use in double glass window for illuminating of building room

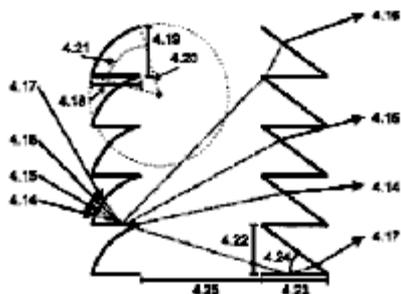
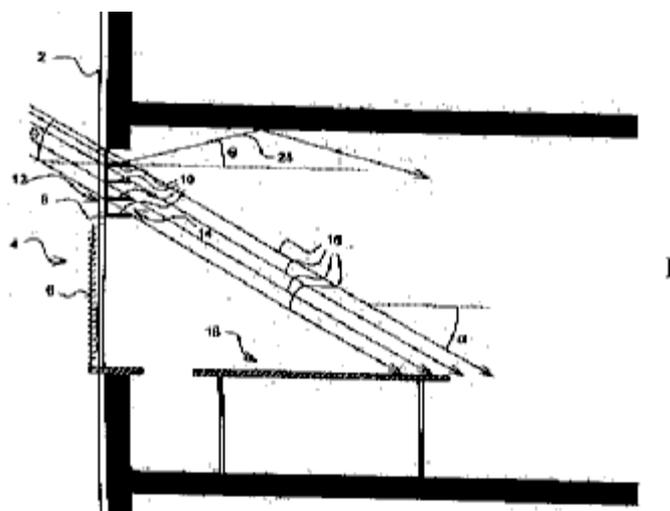


Fig. 4a

Ex.: DE10324852 - Daylight illumination system



Informative references

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

| | |
|--|-----------------------------|
| Building arrangements in general, building details | E04 |
| Sky-lights; Domes; Ventilating sky-light | E04D 13/03 |
| Windows or the like | E06B |
| Light guides specially adapted for lighting devices or systems | G02B 6/0001 |

F21S 13/00

**Non-electric lighting devices or systems employing a point-like light source (candle holders F21V35/00);
Non-electric lighting devices or systems employing a light source of unspecified shape**

Informative references

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

| | |
|---------------|---|
| Candle per se | C11C 5/006 , C11C 5/008 |
| Candle holder | F21V 35/00 |

F21S 15/00

Non-electric lighting devices or systems employing light sources not covered by main groups F21S11/00, F21S13/00 or F21S19/00

F21S 19/00

Lighting devices or systems employing combinations of electric and non-electric light sources; Replacing or exchanging electric light sources with non-electric light sources or vice-versa

F21S 48/00

[N: Lighting devices or systems specially adapted for vehicles (arrangements or adaptations for ships or waterborne vessels B63B45/00)]

Definition statement

This subclass/group covers:

This group is not part of the IPC. It replaces the group [F21S 8/10](#)

- Lighting devices adapted to be mounted on the front part of an automotive vehicle characterised by the shape or the kind of light emitter
- Lighting devices adapted to be mounted on the rear part of an automotive vehicle characterised by the shape or the kind of light emitter.

References relevant to classification in this group

This subclass/group does not cover:

| | |
|---|----------------------------|
| Cycles | B62J |
| Arrangements or adaptations of signalling or lighting devices for ships or waterborne vessels | B63B 45/00 |
| Aircraft signal or lighting devices | B64D 47/02 |

Informative references

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

| | |
|--|----------------------------|
| Arrangements of lighting devices on vehicles in general, the mounting or supporting thereof or circuits therefor | B60Q |
| Details of lighting devices | F21V |
| Testing alignment of electric head-lighting or spot-lighting devices or systems for vehicles | G01M 11/06 |