CPC field-specific training

B25C
Overview

- **Classification scheme**
- Definitions and related fields
- Examples
Classification scheme

B25C group has about **24 000 documents**.

The largest groups are:

- 3 069 documents – B25C1/08
- 2 054 documents – B25C1/06
- 1 930 documents – B25C1/008
- 1 200 documents – B25C1/00

The **average group** size is around **200-250 documents**.
Classification scheme

As the aim of classification is the retrieval of technical subject-matter, the search examiner in the field applies a mix of:

- **Figure-feature search**, i.e. a search of features shown in figures
- **Text-feature search**, i.e. a search for written features

When flipping through documents, in B25C, the search examiner mostly looks at the figures, i.e. classification of the figures is often more important than classification of the wording of broad and vague claims.
Classification scheme

B25C1/00 – **Hand-held nailing tools**; Nail feeding devices

- B25C1/001 – Nail feeding devices
- B25C1/008 – Safety devices
- B25C1/02 – operated by manual power
- B25C1/04 – operated by fluid pressure (e.g. by air pressure)
- B25C1/06 – operated by electric power
- B25C1/08 – operated by combustion pressure
- B25C1/10 – operated by combustion pressure generated by detonation of a cartridge
- B25C1/18 – Details and accessories, e.g. splinter guards, spall minimisers
Classification scheme

B25C3/00 – Portable devices for holding and guiding nails; Nail dispensers

B25C5/00 – Manually operated portable stapling tools; Hand-held power-operated stapling tools
   - B25C5/02 – with provision for bending the ends of the staples on to the work
   - B25C5/06 – without provision for bending the ends of the staples on to the work
   - B25C5/10 – Driving means
   - B25C5/16 – Staple-feeding devices (e.g. with feeding means, supports for staples or accessories concerning feeding devices)
Classification scheme

B25C7/00 – **Accessories for nailing or stapling tools**, e.g. supports

B25C9/00 – **Nail punches**

B25C11/00 – **Nail, spike, and staple extractors**

B25C13/00 – **Nail straightening devices**
Overview

- Classification scheme
- Definitions and related fields
- Examples
Definitions and related fields

B25C1/00 – **Hand-held nailing tools** (hammers per se B25D; nailing machines B27F7/02); Nail feeding devices

This place covers:

- Nail feeding devices;
- Safety devices;
- Tools operated by manual power;
- Tools operated by fluid pressure;
- Tools operated by electric power;
- Tools operated by combustion pressure.

This place does not cover B27F7/02 – Nailing machines.
## Definitions and related fields

### Related fields of B25C1 (1)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B25C5/00</td>
<td>Manually operated portable stapling tools; Hand-held power-operated stapling tools; Staple feeding devices</td>
</tr>
<tr>
<td>B25B21/00</td>
<td>Portable power-driven screw or nut setting or loosening tools</td>
</tr>
<tr>
<td>B25B23/00</td>
<td>Details of, or accessories for screwdrivers</td>
</tr>
<tr>
<td>B25D</td>
<td>Hammers per se</td>
</tr>
<tr>
<td>B27F7/00</td>
<td>Nailing or stapling; Nailed or stapled work</td>
</tr>
<tr>
<td>C10L3/00</td>
<td>Gaseous fuels; Natural gas; Synthetic natural gas; Liquefied petroleum gas</td>
</tr>
<tr>
<td>F02B63/02</td>
<td>Adaptations of engines for driving pumps, hand-held tools or electric generators; Portable combinations of engines with engine-driven devices, for hand-held tools</td>
</tr>
</tbody>
</table>
# Definitions and related fields

## Related fields of B25C1 (2)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F02P15/00</td>
<td>Electric spark ignition having characteristics not provided for</td>
</tr>
<tr>
<td>F16B1/00</td>
<td>Devices for securing together, or preventing relative movement between, constructional elements or machine parts</td>
</tr>
<tr>
<td>F16B15/00</td>
<td>Nails, staples</td>
</tr>
<tr>
<td>F17C13/003</td>
<td>Details of vessels or of the filling or discharging of vessels - Means for coding or identifying them and/or their contents</td>
</tr>
<tr>
<td>F17C13/04, F17C13/08</td>
<td>Details of vessels or of the filling or discharging of vessels – Arrangement or mounting of valves and Mounting arrangements for vessels</td>
</tr>
</tbody>
</table>
## Definitions and related fields

### Related fields of B25C1 (3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F23D14/28</td>
<td>Burners for combustion of a gas, e.g. of a gas stored under pressure as a liquid in association with a gaseous fuel source, e.g. acetylene generator, or a container for liquefied gas</td>
</tr>
<tr>
<td>F41A</td>
<td>Functional features or details both common to small arms and ordinance</td>
</tr>
<tr>
<td>F42B5/36</td>
<td>Cartridge ammunition, e.g. separately-loaded propellant charges – cartridge cases modified for housing an integral firing-cap</td>
</tr>
<tr>
<td>F42B8/04</td>
<td>Practice or training ammunition – cartridges</td>
</tr>
</tbody>
</table>

The group B25C1/18 does not apply only to combustion nailing tools, but is used also for details of other types of nailing (B25C1) or stapling (B25C5) devices.
Definitions and related fields

B25C3/00 – Portable devices for holding and guiding nails;
Nail dispensers

This place covers:

▪ nail dispensers with provision for holding and guiding nails;
▪ devices only for holding and guiding nails.
# Definitions and related fields

## Related fields of B25C3

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B25C9/00</td>
<td>Nail punches</td>
</tr>
<tr>
<td>B25D1/04, B25D1/06</td>
<td>Hand hammers with provision for withdrawing or holding nails or spikes</td>
</tr>
<tr>
<td>F16B15/00</td>
<td>Nails, staples</td>
</tr>
</tbody>
</table>
Definitions and related fields

B25C5/00 – Manually operated portable stapling tools; Hand-held power-operated stapling tools

This place covers:

- tools with provision for bending the ends of the staples on to the work;
- tools without provision for bending the ends of the staples on to the work;
- tool driving means;
- staple-feeding devices (e.g. with feeding means, supports for staples or accessories concerning feeding devices)
Definitions and related fields

B25C5/00 – Manually operated portable stapling tools; Hand-held power-operated stapling tools

This place does not cover:

- B25B27/146 – Hand-held power-operated stapling tools clip clamping hand tools
- B25F5/00 – Details or components of portable power-driven tool not particularly related to the operation performed
- B27F7/17 – Stapling machines
- F16B15/00 – Staples
Definitions and related fields

B25C5/00 – Manually operated portable stapling tools; Hand-held power-operated stapling tools

In this group the following term is used with the meaning indicated:

"stapling tools" covers tools for driving U-shaped loops, e.g. of metallic material, into a surface to fix an object thereto, or through layers of relatively thin material to hold them together, e.g. by clinching
### Definitions and related fields

#### Related fields of B25C5 (1)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A41H37/00</td>
<td>Machines, appliances or methods for setting fastener-elements on garments</td>
</tr>
<tr>
<td>B21D53/26</td>
<td>Clips, clamps, or like fastening or attaching devices, e.g. for electric installation</td>
</tr>
<tr>
<td>B25B31/00</td>
<td>Hand tools for applying fasteners</td>
</tr>
<tr>
<td>B27F7/02</td>
<td>Nailing machines</td>
</tr>
<tr>
<td>B27F7/19</td>
<td>Stapling machines with provision for bending the ends of the staples on to the work</td>
</tr>
<tr>
<td>B42B5/00</td>
<td>Permanently attaching together sheets, quires or signatures otherwise than by stitching</td>
</tr>
</tbody>
</table>
### Definitions and related fields

#### Related fields of B25C5 (2)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B65C5/06</td>
<td>Labelling fabrics or comparable materials or articles with deformable surface, e.g. paper, fabric rolls, stockings, shoes using staples</td>
</tr>
<tr>
<td>B65C7/00</td>
<td>Affixing tags</td>
</tr>
<tr>
<td>E04F21/00</td>
<td>Implements for finishing work on buildings</td>
</tr>
<tr>
<td>F16B15/00</td>
<td>Nails, staples</td>
</tr>
<tr>
<td>G09F3/16</td>
<td>Fastening or securing by means not forming part of the material of the label itself by clamps</td>
</tr>
</tbody>
</table>
Definitions and related fields

B25C7/00 – Accessories for nailing or stapling tools, e.g. supports

This place covers:

- Accessories and supports for nailing or stapling tools.

This place does not cover:

- B25C1/18 – Accessories and supports for tools operated by detonation of a cartridge
- B25C5/1693 – Staple feeding devices coordinating with feeding of a second item (i.e. cap feeding means)
# Definitions and related fields

## Related fields of B25C7

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F16B15/08</td>
<td>Nails or staples formed in integral series but easily separable</td>
</tr>
<tr>
<td>F16B43/00</td>
<td>Washers or equivalent devices; Other devices for supporting bolt-heads or nuts</td>
</tr>
<tr>
<td>F16L3/04</td>
<td>Supports for pipes, cables or protective tubing, partly surrounding the pipes, cables or protective tubing and pressing it against a wall or other support</td>
</tr>
</tbody>
</table>
Definitions and related fields

B25C9/00 – Nail punches

This place covers:

- Nail punches
- Tools with provision to drive nails flush with or below a working surface
Definitions and related fields

B25C11/00 – **Nail, spike, and staple extractors**

This place covers:

- Nail, spike and staple extractors
- Manual and power actuated tools that remove nails, spikes, and staples from a working member

This place does not cover B25D1/00 – Hammers (incorporating extractors).
# Definitions and related fields

## Related fields of B25C11

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B66F15/00</td>
<td>Crowbars or levers</td>
</tr>
<tr>
<td>E01B29/00</td>
<td>Laying, rebuilding, or taking-up tracks; Tools or machines therefore</td>
</tr>
<tr>
<td>E02D9/00</td>
<td>Removing sheet piles bulkheads, piles, mould-pipes or other moulds</td>
</tr>
<tr>
<td>E04F21/20</td>
<td>Implements for finishing work on buildings for laying flooring</td>
</tr>
<tr>
<td>E04G23/08</td>
<td>Wrecking of buildings</td>
</tr>
<tr>
<td>E04H15/32</td>
<td>Parts, components, construction details, accessories, interior equipment,</td>
</tr>
<tr>
<td></td>
<td>specially adapted for tents, e.g. guy-line equipment, skirts, thresholds</td>
</tr>
<tr>
<td>E04H17/26</td>
<td>Devices for erecting or removing fences</td>
</tr>
</tbody>
</table>
Definitions and related fields

B25C13/00 – **Nail straightening devices**

This place covers:

- Nail straightening devices
- Devices used to correct the shape of nails, with or without extracting means for nails
Definitions and related fields

Workflow summary

- When flipping through documents, in B25C, the search examiner mostly looks at the figures, i.e. classification of the figures is often more important than classification of the wording of broad and vague claims.

- Abstract and summary of the invention are usually enough to receive additional “text” information.

- The group B25C1/18 does not apply only to combustion nailing tools, but is used also for details of other types of nailing (B25C1) or stapling (B25C5) devices. Similarly, the use of classes from the staple “guns” for nail “guns” and vice-versa is practiced, as there is no duplication of sub-groups between them (e.g. only one safety class in B25C1/008 also used for safety of staple “guns”; only one description for incremental feeding of staples in B25C5/1627, used also for nails).
Overview

- Classification scheme
- Definitions and related fields
- Examples
Examples

Example 1

US2018009097

A powered fastener driver comprising: a magazine containing fasteners therein; a drive blade movable in a reciprocating manner to discharge a fastener from the magazine for each drive cycle of the drive blade; a first trigger operable to initiate a drive cycle of the drive blade; and a second trigger movable between a first position, in which the first trigger is inhibited from moving to initiate the drive cycle, and a second position, in which the first trigger is movable to initiate the drive cycle.
Example 2

WO2018005778

A **cordless electric nailer** comprising:

- a battery-powered **electric motor driven flywheel** selectively engageable against a nail driver to fire the nail driver along a driver axis extending through a barrel of a nosepiece;

- a **removable contact trip** received in an aperture of the barrel and slidable between a retracted position and an extended position relative to an end of the barrel, the removable contact trip defining a muzzle aperture aligned with the driver axis and through which a fastener is driven by the nail driver, and the removable contact trip including latch pocket;

- a removable contact trip latch coupled to the barrel and biased toward a latched position in which the removable contact trip latch extends through a window of the barrel and is receivable in the latch pocket to latch the removable contact trip to the barrel...
Examples

Example 3

US2013082085

A driver tool powered by compressed gas, comprising:

- a magazine associated with said tool for storing and supplying fasteners to a tool nose;
- a cylinder in said tool with a reciprocating piston attached to a driver blade sequentially engaging fasteners from the magazine as they are fed into said tool nose; and

a compressed gas container in fluid communication with said reciprocating piston and having an anti-siphon tube.
Examples
Example 4

EP2651605
A method for driving in fasteners (1) on a cartridge belt (4), in particular nails or staples, in driving cycles by means of a driving tool, wherein a driving cycle is combined with a conveying cycle for the cartridge belt (4) along a conveying path, wherein a sensing point (9) in the conveying path senses whether the cartridge belt (4) is present, wherein, after the cartridge belt is no longer present at the sensing point (9) following a conveying cycle, deactivation of the driving tool is initiated ...

[35] It is, however, fundamentally important here that an in particular pneumatic conveying drive means 11 is provided for conveying the fasteners 1 to the driving channel 2, wherein a conveying cycle here preferably results from a back-and-forth movement of a conveying piston 12 ...
Examples
Example 5

US2009114696
A safety is incorporated in a nailing device, which ensures operation safety of the nailing device. The nailing device includes a housing in which a striker plate is mounted and movable to a ready-to-strike position for subsequently striking a nail out of the housing. The safety includes a retainer pivoted to the housing with an inner end engaging the striker plate to retain the striker plate against movement to the ready-to-strike position and an opposite outer end engaging a release plate that is biased by a spring to partially projecting beyond the housing. When the nailing device is properly set on a work piece, the release plate is forced against the biasing spring back into the housing and the inner end of the retainer is caused to disengage from and thus freeing the striker plate.
Thank you for your attention!