

B26D

CUTTING; DETAILS COMMON TO MACHINES FOR PERFORATING, PUNCHING, CUTTING-OUT, STAMPING-OUT OR SEVERING (soil-working [A01B](#); for growing crops or plants [A01D](#), [A01G](#); for fodder or straw [A01F](#); for bulk butter [A01J](#); for dough [A21C](#); slaughtering [A22B](#); for tobacco, cigars or cigarettes [A24](#); marking-out, perforating or making buttonholes [A41H 25/00](#); manufacturing footwear [A43D](#); brushmaking [A46D](#); surgery [A61B](#); disintegrating, mincing or shredding in general [B02C](#); cutting wire, making pins or nails [B21F](#), [B21G](#); of the kind used for metal [B23](#); cutting by abrasive fluid jets [B24C 5/02](#); hand-held cutting tools [B26B](#); perforating, cutting-out, stamping-out or punching, or severing by means other than cutting [B26F](#); for wood [B27](#); for stone [B28D](#); working of plastics or substances in a plastic state [B29](#); making boxes, cartons, envelopes or bags, of paper or similarly worked materials, e.g. metal foil, [B31B](#); article or web delivery apparatus incorporating cutting or line-perforating devices [B65H 35/00](#); for leather or upholstery [B68](#); [C14B](#); for glass [C03B](#); making matches [C06F](#); for peat [C10F](#); for sugar [C13B 45/00](#); for textile materials [D06H](#); civil engineering, building, mining, see [Section E](#); for light guides [G02B 6/25](#); cutting processed photographic material [G03D 15/04](#))

Definition statement

This place covers:

Cutting of non-metallic sheet material or metal foil in general and cutting other forms of non metallic materials not otherwise provided for; apparatus or machines therefor; cutting members therefor. Cutting is defined as a process of severing material with a sharp edge penetrating into material, e.g. a blade as cutting member, without removing material in form of chips.

- Characterised by the nature or movement of a cutting member which does not travel with the work, e.g. stationary or linearly movable cutting members reciprocating or rotating cutting members;
- Characterised by the nature or movement of a cutting member which travels with the work, i.e. flying cutter, e.g. mounted on a movable arm or carriage;
- Characterised by the nature of the cut made, e.g. beveling, grooving, scoring, forming notches, or splitting/separating layers by cutting; Apparatus therefore;

Arrangements for operating and controlling machines or devices for cutting, cutting-out, stamping out, punching, perforating and also for severing by means other than cutting, e.g.

- Means for moving the cutting member into its operative position for cutting, or for actuating the cutting member to effect the cut;
- Arrangements with interrelated action between the cutting member and work feed, or between work feed and clamp, or with means operable by the moving work to initiate the cutting action;
- Details of apparatus for cutting, cutting-out, stamping out, punching, perforating and also for severing by means other than cutting
- Means for holding, positioning, clamping or for removing cut-out material or waste;
- Means for mounting or adjusting the cutting member or the stroke of the cutting member;
- Means for treating work or cutting member to facilitate cutting, e.g. by sharpening the cutting member;
- Means for performing other operations combined with cutting, e.g. counting the number of cuts, conveying, weighting the cut product;
- Cutting beds;
- Safety devices specially adapted for cutting machines;

- Cutting apparatus combined with punching or perforating apparatus or with dissimilar cutting apparatus or combinations of several similar cutting apparatus

Relationships with other classification places

With regard to the aspect of cutting itself, irrespective of the material:

- The term cutting as used in groups of subclass [B26D](#) covers severing material with a sharp edge penetrating into the material, e.g. a blade as cutting member, without removing material in the form of chips. Therefore severing otherwise than by cutting, e.g. by shearing or tearing, and cutting whereby chips of material are removed, e.g. working material by turning, boring, milling, sawing is not covered by the subclass [B26D](#).
- Perforating, cutting-out, punching, stamping-out or severing by means other than cutting regardless of the material is covered by other places especially by [B26F](#) or [B21D](#).
- Hand- held cutting tools are covered by subclass [B26B](#), particularly hand- held motor- driven cutting tools.

With regard to the material to be cut:

- For the material aspect, subclass [B26D](#) covers cutting non-metallic sheet material or metal foil in general, whereby metal foils are covered in so far as they are workable in a manner analogous to paper (as typical non-metallic sheet material). Other forms of non-metallic materials not otherwise provided for are also covered by subclass [B26D](#).
- [B26D](#) does not cover cutting metal other than the aforementioned metal foils:
- Cutting by machine tools used for working metal by removing material is covered by class [B23](#), e.g. for turning, boring, milling, planing, slotting, sawing metal.
- Shearing or similarly severing metal is covered by [B23D 15/00](#) - [B23D 35/00](#).
- Cutting of sheet metal or other metal stock material like metal rods, metal tubes or metal profiles, is covered by subclass [B21D](#), e.g. press-cutting in [B21D 28/00](#). Cutting or splitting metal wire is covered by [B21F 11/00](#) and [B21F 13/00](#).
- Particular aspects of cutting other forms of non-metallic materials are covered by places within subclasses of [B27](#) for wood and similar materials and within main group [B28D 1/00](#) for stone or stone-like materials. [B27L](#) covers for example cutting veneer strips from trunks or splitting wood, [B28D 1/22](#) covers working stone by cutting, e.g. by incising with cutting discs.
- Cutting plastic material (or other non-metallic materials) is covered by places within subclasses of [B23](#), where the term 'metal working' covers other materials unless the context requires otherwise.

With regard to details common to machines for severing:

- This subclass also covers features specific to machines for cutting, perforating, punching, cutting-out, stamping-out, or severing by means other than cutting, which relate to a requirement or problem of a nature which is not peculiar to a machine for these purposes, that is, details of or arrangements for operating or controlling such machines, although the realisation of such features may differ according to the kind of machine concerned. This subclass covers such features in general even if the feature, in any particular case, is to some extent peculiar to, or is claimed only for, a machine designed for perforating, punching, cutting-out, stamping-out, or for severing other than by cutting.
- If the details or arrangements have no essential features specific to cutting, perforating, punching, cutting-out, stamping-out or severing machines, the more general classes, e.g. [F16](#), take precedence.

References

Limiting references

This place does not cover:

Disintegrating by knives or other cutting or tearing members which chop material into fragments	B02C 18/00
Punching or perforating of metal	B21D 28/00
Cutting of the kind used for metal-working	B23
Blast guns generating high velocity abrasive fluid jets for cutting materials	B24C 5/02
Hand-held cutting tools	B26B
Perforating, cutting out, stamping out or punching, or severing by means other than cutting	B26F

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:

Soil-working	A01B
Harvesting or mowing	A01D
Hand-operated implements for cutting-up straw, hay or the like	A01F 3/00
Cutting of straw, hay or the like	A01F 29/00
Cutting implements specially adapted for horticulture and forestry	A01G
Cutting of butter during butter manufacturing	A01J 21/02 , A01J 23/00
Cutting, stamping, slotting, slitting or perforating of dough and cutting or slicing of baked articles other than bread	A21C
Slaughtering	A22B
Processing meat, poultry, or fish	A22C
Cutting for tobacco, cigars or cigarettes	A24B 7/00 , A24C , A24F 13/24
Marking-out, perforating or making buttonholes	A41H 25/00
Manufacturing or repairing footwear	A43D
Brushmaking	A46D
Surgical instruments, devices or methods	A61B 17/32
Devices or methods specially adapted for bringing pharmaceutical products into particular physical or administering forms	A61J 3/00
Cutting of wood or similar material	B27B , B27C , B27D , B27F , B27L , B27M
Cutting shaped articles made of clay or other ceramic compositions	B28B 11/00
Cutting of stone	B28D
Working of plastics or substances in a plastic state	B29C
Making boxes, cartons, envelopes or bags, of paper or similarly worked materials, e.g. metal foil	B31B

Auxiliary cutting of sheets or webs in rotary printing presses	B41F 13/54
Cutting related to typewriters or selective printing mechanisms	B41J 3/24 , B41J 11/66
Cutting related to apparatus or devices for manifolding, duplicating, or printing or related to addressing machines or like series-printing machines	B41L
Sharpeners for pencils or leads	B43L 23/00
Devices for opening envelopes	B43M 7/00
Cutting for severing webs for packaging, or for separating joined packages	B65B 61/06
Cutting-off the web from the wound web roll, cutting of the web for changing web rolls	B65H 19/26 , B65H 19/20
Article or web delivery apparatus incorporating cutting or line-perforating devices	B65H 35/00
Hand- or power-operated cutting devices for opening closed containers	B67B 7/30 - B67B 7/385
Cutting of leather or upholstery	B68F , B68G , C14B
Cutting of glass	C03B
Cutting explosives	C06B 21/00
Making matches	C06F 1/00
Cutting of peat	C10F 7/00
Cutting of soap	C11D 13/22
Reducing the size of material from which sugars are to be extracted	C13B 5/00
Cutting of sugar	C13B 45/00
Cutting of textile material	D06H 7/00
Working rails, sleepers, baseplates, or the like	E01B 31/00
Forming cuts into roads or like surfaces	E01C 23/09
Cutting in connection with devices or accessories for making or mounting lamellar blinds or parts thereof	E06B 9/266
Cutting in earth or rock drilling and mining	E21B , E21C , E21D
Devices for withdrawing samples by cutting	G01N 1/04
Preparing the ends of light guides, e.g. cutting	G02B 6/25
Cutting processed photographic material	G03D 15/04
Cutting of a semiconductor body into separate parts	H01L 21/304
Cutting for removing insulation or armouring from cables	H02G 1/12

Informative references

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

Crushing, pulverising or disintegrating in general	B02C
Sharpening cutting edges	B24B 3/00
Blasting with jets acting as abrasive jets, but not containing particulate material in the case of jet milling of local recessions like e.g. grooves	B24C 1/04
Blasting with jets acting as abrasive jets, but not containing particulate material in the case of deburring	B24C 1/083

Blasting with jets acting as abrasive jets, but not containing particulate material in the case of removal of extended surface areas	B24C 1/086
--------------------------------------------------------------------------------------------------------------------------------------	----------------------------

Glossary of terms

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

guillotine	a cutter with a knife moving down and guided on both sides
Thin material	material that can be handled similar to paper, e.g. aluminium foils

B26D 1/00

Cutting through work characterised by the nature or movement of the cutting member {or particular materials not otherwise provided for}; Apparatus or machines therefor; Cutting members therefor

Definition statement

This place covers:

Cutting through work characterised by the nature or movement of the cutting member; Apparatus or machines therefor; Cutting members therefor. E.g. cutting blades, linearly moving blades, cutting members rotating about an axis or rotating about a movable axis.

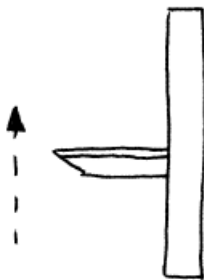
B26D 1/025

{for thin material, e.g. for sheets, strips or the like}

Definition statement

This place covers:

Cutting machines having a stationary cutting member; e.g. trimming the edges of a running web with a stationary cutting member.



B26D 1/04

having a linearly-movable cutting member ([B26D 1/46](#), [B26D 1/547](#) take precedence)

References**Limiting references**

This place does not cover:

Cutting by band knives	B26D 1/46
Cutting by wires	B26D 1/547
Involving a cutting member which travels with the work	B26D 1/56

B26D 1/045

{for thin material, e.g. for sheets, strips or the like}

Definition statement

This place covers:

Cutting device having a linearly-movable cutting member, e.g. photo cutter with a cutting member mounted on a carriage and cutting can be performed only in one direction.

References**Limiting references**

This place does not cover:

Paper cutters where the cutting is performed by moving the cutting element back and forth	B26D 1/065
-------------------------------------------------------------------------------------------	----------------------------

Informative references

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

Inserting blades in running web; e.g. for tearing goes to	B26F 3/002 or B26F 3/02
-----------------------------------------------------------	---------------------------------------------------------

B26D 1/06

wherein the cutting member reciprocates (cup or like cutting members [B26D 1/44](#))

Definition statement

This place covers:

Cutting device having a linearly-movable cutting member wherein the cutting member reciprocates, e.g. mechanics for oscillating cutters, cutting in both directions..

References

Informative references

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

Cutting by cup or disc cutter on a carriage	B26D 1/185
Cutting by cup or like cutting members	B26D 1/44

B26D 1/065

{for thin material, e.g. for sheets, strips or the like}

Definition statement

This place covers:

Cutting device having a linearly-movable cutting member wherein the cutting member reciprocates, e.g. paper cutters having a blade suitable for cutting in both directions.

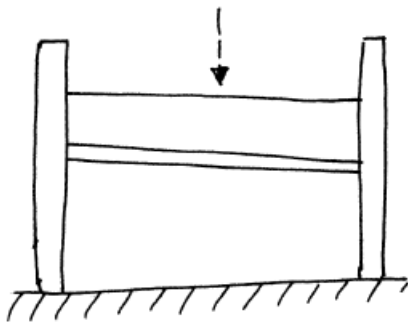
B26D 1/08

of the guillotine type

Definition statement

This place covers:

guillotines in general



References

Limiting references

This place does not cover:

Blind cutters for metal	B23D 23/00
-------------------------	----------------------------

B26D 1/09**with a plurality of cutting members****Definition statement***This place covers:*

Cutting device having a plurality of linearly-movable cutting members wherein the cutting members reciprocate, e.g. so-called three side trimmers for printed products.

References**Informative references**

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

Bookbinding in general	B42C
------------------------	----------------------

B26D 1/10**in, or substantially in, a direction parallel to the cutting edge****Definition statement***This place covers:*

Cutting device having a plurality of linearly-movable cutting members wherein the cutting members reciprocate like a "jig saw".

B26D 1/12

having a cutting member moving about an axis ([B26D 1/547](#) takes precedence; cup or like cutting members [B26D 1/44](#))

References**Informative references**

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

Cutting by cup or like cutting members	B26D 1/44
----------------------------------------	---------------------------

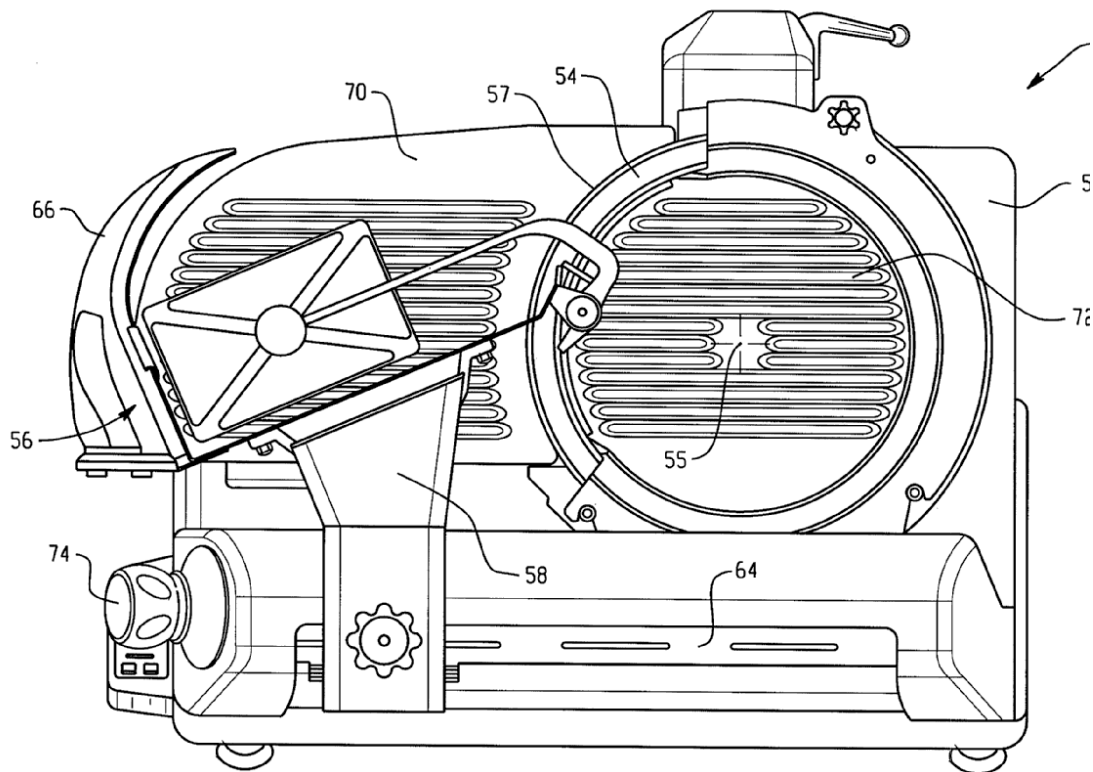
B26D 1/143

rotating about a stationary axis ([B26D 1/20](#) - [B26D 1/24](#) take precedence)

Definition statement

This place covers:

Cutting machines having a cutting member moving about a stationary axis, e.g. a food slicer as shown below.

**B26D 1/185**

{for thin material, e.g. for sheets, strips or the like}

Definition statement

This place covers:

Cutting machine having a cutting member moving about an axis and mounted on a movable carriage for thin material; e.g. a disc cutter mounted on a carriage and operating on a cutting mat.

References**Limiting references**

This place does not cover:

The disc cutter cooperates with a fixed member	B26D 1/205
------------------------------------------------	----------------------------

B26D 1/205

{for thin material, e.g. for sheets, strips or the like}

Definition statement

This place covers:

Cutting machine having a cutting member moving about an axis and mounted on a movable carriage for thin material and coacting with a fixed member like a counter blade.

B26D 1/22

coacting with a movable member, e.g. a roller ([B26D 1/24](#) takes precedence)

Definition statement

This place covers:

Cutting machine having a cutting member moving about an axis coacting with a movable member, e.g. a slitter with an anvil drum.

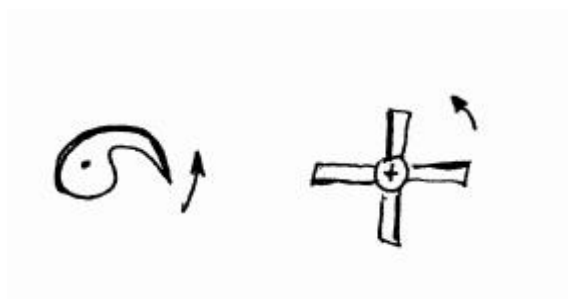
B26D 1/28

and rotating continuously in one direction during cutting

Definition statement

This place covers:

Cutting machine with a non-circular cutting member and rotating continuously in one direction during cutting; even when the cutting member is rotated manually.



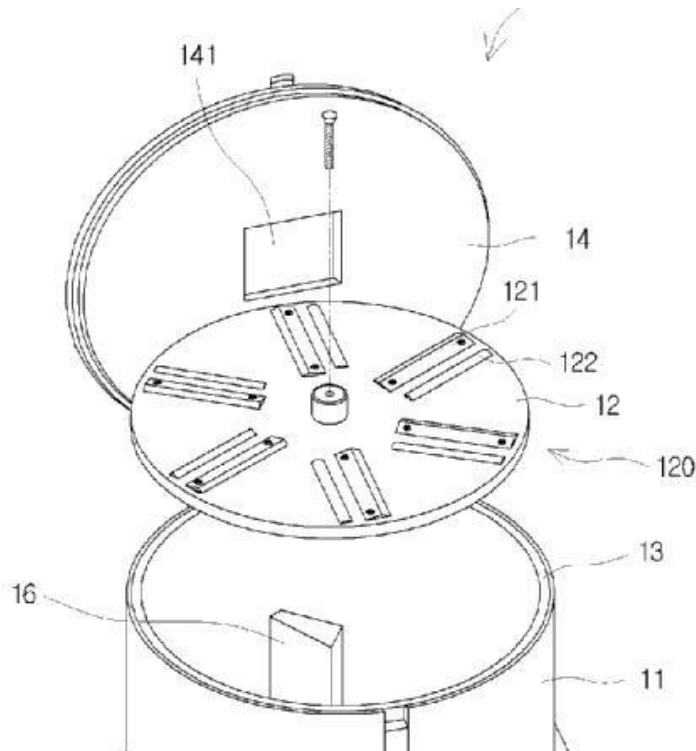
B26D 1/29

with cutting member mounted in the plane of a rotating disc, e.g. for slicing beans

Definition statement

This place covers:

Cutting machine with a non-circular cutting member and rotating continuously in one direction during cutting with cutting member mounted in the plane of a rotating disc.

**References****Informative references**

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

Miscellaneous implements for preparing or holding food with grating discs or drums.	A47J 43/255
-------------------------------------------------------------------------------------	-----------------------------

B26D 1/30

with limited pivotal movement to effect cut

Definition statement

This place covers:

Cutting machine with a non-circular cutting member with limited pivotal movement to effect cut, e.g. a paper cutting knife.

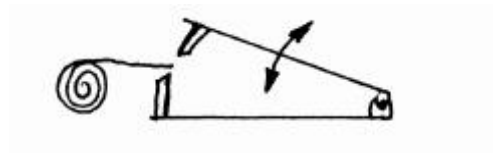
B26D 1/34

moving about an axis parallel to the line of cut

Definition statement

This place covers:

Cutting machine with a cutting member moving about an axis parallel to the line of cut.

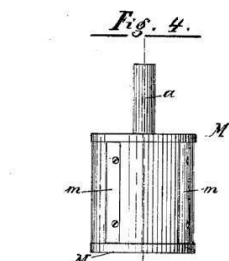
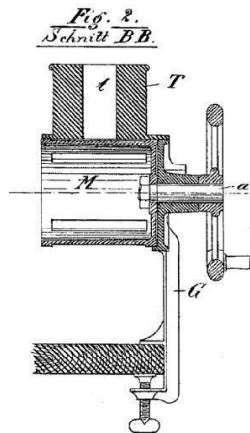
**B26D 1/36**

and rotating continuously in one direction during cutting, e.g. mounted on a rotary cylinder (for flying cutting [B26D 1/62](#))

Definition statement

This place covers:

Cutting machine with a cutting member moving about an axis parallel to the line of cut and rotating continuously in one direction during cutting, e.g. mounted on a rotary cylinder.

**References****Limiting references**

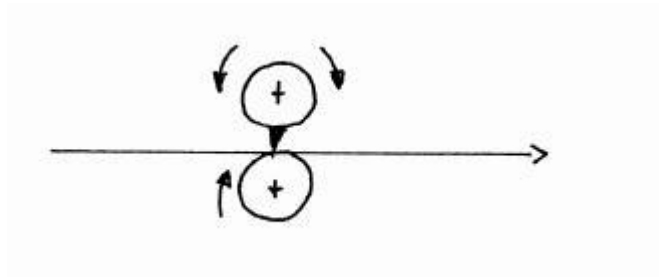
This place does not cover:

Cutting by flying cutting	B26D 1/62
---------------------------	---------------------------

B26D 1/40**and coating with a rotary member****Definition statement**

This place covers:

Cutting machine with a cutting member moving about an axis parallel to the line of cut and rotating continuously in one direction during cutting, and coating with a rotary member; e.g. a cutter coating with an anvil drum.

**B26D 1/405**

{for thin material, e.g. for sheets, strips or the like}

References**Limiting references**

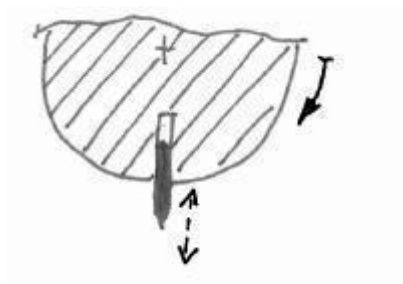
This place does not cover:

Cutting by two cooperating rotary blades (e.g. flying shears on drums)	B26D 1/626
------------------------------------------------------------------------	----------------------------

B26D 1/42**and slidably mounted in a rotary member****Definition statement**

This place covers:

Cutting machine with a cutting member moving about an axis parallel to the line of cut and rotating continuously in one direction during cutting, and slidably mounted in a rotary member, e.g. a drum with a linearly in radial direction moving blade in the drum.



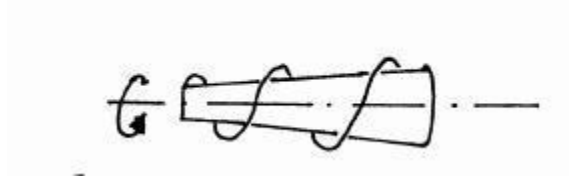
B26D 1/43

moving about another axis, e.g. mounted on the surface of a cone or curved body

Definition statement

This place covers:

Cutting machine with a cutting member moving about another axis, e.g. mounted on the surface of a cone or curved body

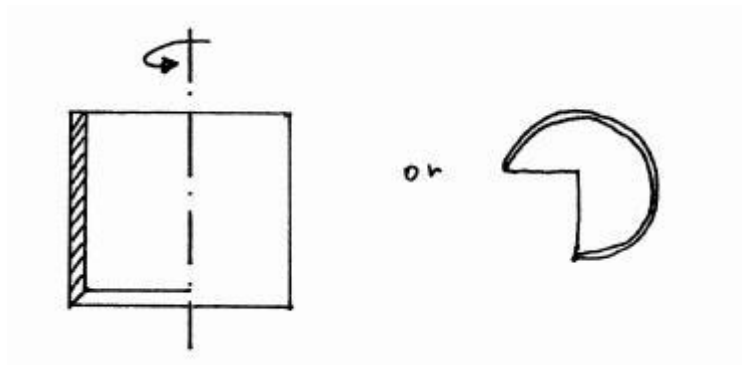
**B26D 1/44**

having a cup or like cutting member

Definition statement

This place covers:

Cutting machines having a cup or like cutting member.

**References****Limiting references**

This place does not cover:

cutting out discs	B26F 1/3846
-------------------	-----------------------------

B26D 1/46

having an endless band-knife or the like

References**Informative references**

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

Strap saw sawing machines	B23D 55/00
---------------------------	----------------------------

B26D 1/56

involving a cutting member which travels with the work {otherwise than in the direction of the cut}, i.e. flying cutter (flying shears for metal [B23D 25/00](#); flying saws for metal [B23D 45/18](#))

Definition statement

This place covers:

Cutting machine involving a cutting member which travels with the work, e.g. flying cutter.

References**Informative references**

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

Flying shears for metal	B23D 25/00
Flying saws for metal	B23D 45/18

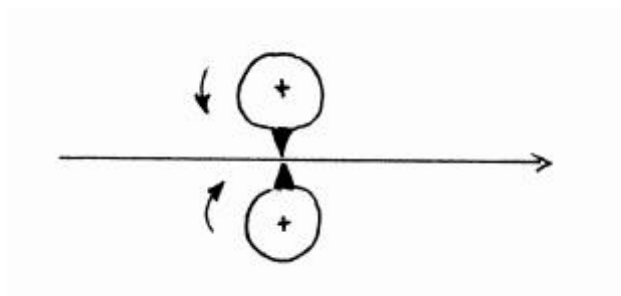
B26D 1/62

and is rotating about an axis parallel to the line of cut, e.g. mounted on a rotary cylinder

Definition statement

This place covers:

Cutting machine involving a cutting member which travels with the work and is rotating about an axis parallel to the line of cut, e.g. mounted on a rotary cylinder.

**References****Limiting references**

This place does not cover:

Rotary cutting cylinders cooperating with an anvil drum	B26D 1/40
---------------------------------------------------------	---------------------------

B26D 3/00**Cutting work characterised by the nature of the cut made; Apparatus therefor****Definition statement***This place covers:*

Cutting work characterised by the nature of the cut made, apparatus therefore, e.g. cutting tubes, making grooves on surfaces, splitting layers from work, halving devices etc.

B26D 3/003**{specially adapted for cutting rubber}****Definition statement***This place covers:*

Cutting through work of particular materials not otherwise provided for; cutting rubber strips, e.g. for tire production or so-called reinforced strips.

References**Limiting references***This place does not cover:*

Cutting profile in tyres	B29D 30/68
--------------------------	----------------------------

B26D 3/006**{specially adapted for cutting blocs of plastic material}****Definition statement***This place covers:*

Cutting through work of particular materials not otherwise provided for; cutting of plastic blocks e.g. cutting foam blocs like styropor.

B26D 3/008**{by sliding}****Definition statement***This place covers:*

Cutting through work of particular materials not otherwise provided for; where the material slides along the cutting member, e.g. cutting of plastic blocks e.g. cutting foam blocs like styropor.

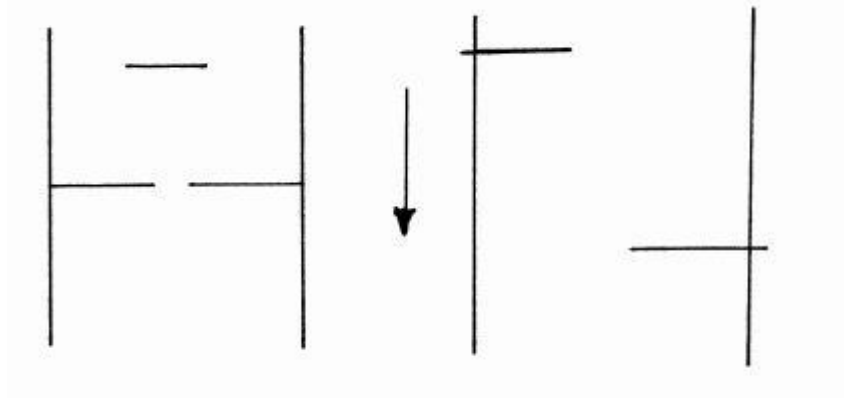
B26D 3/12

Slitting marginal portions of the work, i.e. forming cuts, without removal of material, at an angle, e.g. a right angle, to the edge of the work

Definition statement

This place covers:

Cutting machines for slitting marginal portions of the work, i.e. forming cuts, without removal of material, at an angle, e.g. a right angle, to the edge of the work.

**References****Limiting references**

This place does not cover:

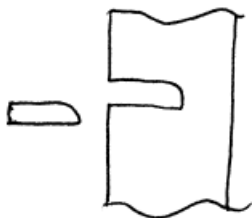
Making a superficial cut in the surface of the work without removal of material, e.g. scoring, incising.	B26D 3/08
----------------------------------------------------------------------------------------------------------	---------------------------

B26D 3/14

Forming notches in marginal portion of work by cutting (by punching [B26F 1/12](#))

Definition statement

This place covers:



References

Informative references

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

Cutting by punching	B26F 1/12
---------------------	---------------------------

B26D 3/18

to obtain cubes or the like (ice harvesting [F25C 5/02](#))

Definition statement

This place covers:

Cutting machines to obtain cubes or the like.

References

Informative references

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

Ice harvesting	F25C 5/02
----------------	---------------------------

B26D 3/28

Splitting layers from work; Mutually separating layers by cutting ([B26D 3/30](#) takes precedence; Recovery of plastics or other constituents of waste material containing plastics [B29B 17/00](#))

Definition statement

This place covers:

Cutting for splitting layers from work; separating layers by cutting.

References

Informative references

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

Recovery of plastics or other constituents of waste material containing plastics	B29B 17/00
----------------------------------------------------------------------------------	----------------------------

B26D 5/00

Arrangements for operating and controlling machines or devices for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting

Definition statement

This place covers:

Arrangements for operating and controlling machines or devices for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting. This includes all kind of electronic or computer control devices but also mechanical actuating mechanisms to effect the cut.

B26D 5/42

with interrelated action between work feed and clamp (work clamping arrangements [B26D 7/02](#))

Definition statement

This place covers:

Arrangements for operating and controlling machines or devices for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting with means operable by the moving work to initiate the cutting action with interrelated action between work feed and clamp.

B26D 7/00

Details of apparatus for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting (cutters [B26D 1/00](#); arrangements for guiding hand cutting tools [B26B 29/06](#); punching tools or dies, cutting-out knives or dies [B26F](#))

Definition statement

This place covers:

Details of apparatus for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting. All kind of devices dedicated to cutting machines such as hoods, safety devices, feeding arrangements, means for mounting the cutting member.

References

Limiting references

This place does not cover:

Cutting blades, or cutting elements	B26D 1/0006
-------------------------------------	-----------------------------

Informative references

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

Arrangements for guiding hand cutting tools	B26B 29/06
Punching tools or dies	B26F 1/44

B26D 7/06

Arrangements for feeding or delivering work of other than sheet, web, or filamentary form (feeding or discharging sheets, webs, or filaments [B65H](#))

Definition statement

This place covers:

Arrangements for feeding or delivering work of other than sheet, web, or filamentary form, e.g. pushers, carriages.

References

Informative references

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

Feeding or discharging sheets, webs, or filaments	B65H
---------------------------------------------------	----------------------

B26D 7/08

Means for treating work or cutting member to facilitate cutting (tensioning band cutters [B26D 1/48](#))

Definition statement

This place covers:

Means for treating work or cutting member to facilitate cutting, e.g. vibrating the cutting blade ultrasonically.

References

Limiting references

This place does not cover:

Tensioning band cutters	B26D 1/48
-------------------------	---------------------------

B26D 7/22

Safety devices specially adapted for cutting machines (safety devices in general [F16P](#))

Definition statement

This place covers:

Safety devices specially adapted for cutting machines.

References

Informative references

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

Safety devices in general	F16P
---------------------------	----------------------

B26D 9/00

Cutting apparatus combined with punching or perforating apparatus or with dissimilar cutting apparatus

Definition statement

This place covers:

Cutting apparatus combined with punching or perforating apparatus or with dissimilar cutting apparatus, e.g. production processes with punching and cutting stations arranged sequentially or in parallel.

B26D 11/00

Combinations of several similar cutting apparatus

Definition statement

This place covers:

Combinations of several similar cutting apparatus, being identical or working with the same cutting principle.

E.g. production processes with similar cutting stations arranged sequentially or in parallel.