

SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B26 HAND CUTTING TOOLS; CUTTING; SEVERING

B26B HAND-HELD CUTTING TOOLS NOT OTHERWISE PROVIDED FOR (for harvesting A01D; for horticulture, for forestry A01G; for butchering or meat treatment A22; for manufacturing or repairing footwear A43D; nail clippers or cutters A45D 29/02; kitchen equipment A47J; for surgical purposes A61B 17/00; for metal B23D; cutting by abrasive fluid jets B24C 5/02; plier-like tools with cutting edges B25B 7/22; pincers B25C 11/02; handles for hand implements, in general B25G; guillotine-type cutters B26D; for erasing B43L 19/00; for textile materials D06H)

Subclass index

KNIVES

Structural features.....	1/00-7/00
Knife blades.....	9/00
Combinations with other articles.....	11/00
SHEARS, SCISSORS, NIPPERS, OR PINCERS WITH CUTTING ACTION.....	13/00, 15/00, 17/00
CLIPPERS OR RAZORS.....	19/00, 21/00
AXES OR HATCHETS.....	23/00
OTHER CUTTING TOOLS.....	25/00, 27/00
GUARDS, SHEATHS OR GUIDING ARRANGEMENTS.....	29/00

Hand knives

- 1/00 Hand knives with adjustable blade; Pocket knives**
(B26B 11/00 takes precedence)
- 1/02 • with pivoted blade
 - 1/04 • • lockable in adjusted position
 - 1/06 • • with loosely-inserted spring
 - 1/08 • with sliding blade
 - 1/10 • Handles [3]
- 3/00 Hand knives with fixed blades**
- 3/02 • Table-knives (B26B 9/02 takes precedence)
 - 3/03 • specially adapted for cutting-off slices one by one
 - 3/04 • for performing several incisions simultaneously;
Multiple-blade knives
 - 3/06 • Scout or similar sheath knives (sheaths therefor
B26B 29/02)
 - 3/08 • specially adapted for cutting cardboard, or wall, floor,
or like covering materials
- 5/00 Hand knives with one or more detachable blades**
(surgical scalpels or knives with detachable blades
A61B 17/3213)
- 7/00 Hand knives with reciprocating motor-driven blades**
- 9/00 Blades for hand knives**
- 9/02 • characterised by the shape of the cutting edge, e.g.
wavy
- 11/00 Hand knives combined with other implements, e.g.
with corkscrew, with scissors, with writing
implement** (combined table-ware A47G 21/06)

Hand shears; Scissors

- 13/00 Hand shears; Scissors**
- 13/02 • with moulded-in blades
 - 13/04 • with detachable blades
 - 13/06 • characterised by the shape of the blades
 - 13/08 • • with cutting edges wavy or toothed in the plane of
the blade
 - 13/10 • • for producing wavy, zig-zag, or like cuts
 - 13/12 • characterised by the shape of the handles
 - 13/14 • • without gripping bows in the handle
 - 13/16 • • • spring loaded, e.g. with provision for locking
the blades or the handles
 - 13/18 • • • without joint, i.e. having blades interconnected
by a resilient member
 - 13/20 • • with gripping bows in the handle
 - 13/22 • combined with auxiliary implements, e.g. with cigar
cutter, with manicure instrument (cigar cutters per se
A24F 13/24)
 - 13/24 • • to aid hair cutting
 - 13/26 • with intermediate links between the grips and the
blades, e.g. for remote actuation
 - 13/28 • Joints (B25B 7/06 takes precedence)
- 15/00 Hand-held shears with motor-driven blades**
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- 17/00 Hand cutting tools with two jaws which come into
abutting contact** (nail clippers or cutters A45D 29/02;
joints therefor B25B 7/06)
- 17/02 • with jaws operated indirectly by the handles, e.g.
through cams or toggle levers

19/00	Clippers or shavers operating with a plurality of cutting edges, e.g. hair clippers, dry shavers	21/06	• • Safety razors with fixed blade, e.g. with moulded-in blade
19/02	• of the reciprocating-cutter type	21/08	• involving changeable blades
19/04	• • Cutting heads therefor; Cutters therefor; Securing equipment thereof	21/10	• • Safety razors with one or more blades arranged longitudinally to the handle
19/06	• • • involving co-operating cutting elements both of which have shearing teeth	21/12	• • • combined with combs or other means for hair trimming
19/08	• • • • of nipper type	21/14	• • Safety razors with one or more blades arranged transversely to the handle
19/10	• • • involving two or more different types of reciprocating cutting elements, e.g. a pair of toothed shearing elements combined with a pair of perforated cutting elements or a combined toothed and perforated cutting assembly	21/16	• • • involving blades with only one cutting edge (B26B 21/22-B26B 21/38 take precedence)
19/12	• of the oscillating-cutter type; Cutting heads therefor; Cutters therefor (B26B 19/04 takes precedence)	21/18	• • • involving blades with two cutting edges (B26B 21/22-B26B 21/38 take precedence)
19/14	• of the rotary-cutter type; Cutting heads therefor; Cutters therefor (B26B 19/04 takes precedence)	21/20	• • • involving blades with more than two cutting edges; involving disc blades (B26B 21/22-B26B 21/38 take precedence)
19/16	• • involving a knife cylinder or a knife cone or separate cutting elements moved like a rotating cylinder or a rotating cone	21/22	• • • involving several blades to be used simultaneously
19/18	• • • in combination with a fixed razor-blade without shearing perforations	21/24	• • • of the magazine type; of the injector type (containers for storing razor-blades A45D 27/24)
19/20	• with provision for shearing hair of preselected or variable length	21/26	• • • of the continuous ribbon type
19/22	• with provision for thinning-out hair	21/28	• • • of the drawing cut type, i.e. with the cutting edge of the blade arranged obliquely to the handle
19/24	• specially adapted for shearing animals, e.g. sheep	21/30	• • • of the type carrying pivotally-mounted caps
19/26	• of the type performing different methods of operation simultaneously, e.g. reciprocating and oscillating; of the type having two or more heads of differing mode of operation	21/32	• • • • in razors involving double-edged blades
19/28	• Drive layout for hair clippers or dry shavers, e.g. providing for electromotive drive (electric motors <u>per se</u> H02)	21/34	• • • of the type carrying rollers
19/30	• • providing for muscle drive, e.g. by rolling over the skin	21/36	• • • • with provision for reciprocating the blade (reciprocating the cutting elements of clippers or dry shavers B26B 19/00)
19/32	• • providing for mechanical drive, e.g. installation of a spring motor	21/38	• • • with provision for reciprocating the blade by means other than rollers (reciprocating the cutting elements of clippers or dry shavers B26B 19/00)
19/34	• • providing for fluid drive	21/40	• Details or accessories
19/36	• • providing for remote drive by means of a flexible shaft; Transmission means therefor	21/42	• • for cutting hair of preselected or variable length (combs, stencils or guides specially adapted for hair trimming devices A45D 24/36)
19/38	• Details of, or accessories for, hair clippers, or dry shavers, e.g. housings, casings, grips, guards (cutters, cutting heads B26B 19/04, B26B 19/12, B26B 19/14; cleaning or disinfecting devices A45D 27/46; drying devices A45D 27/48; casings for electric apparatus in general H05K)	21/44	• • Means integral with, or attached to, the razor for storing shaving-cream, styptic, or the like
19/40	• • Lubricating	21/46	• • for illuminating the skin (B26B 19/46 takes precedence)
19/42	• • providing for straightening the hair to be cut, e.g. by means of bristles; providing for tensioning the skin, e.g. by means of rollers, ledges (skin-stretchers for shaving <u>per se</u> A45D 27/38)	21/48	• • Heating means
19/44	• • Suction means for collecting severed hairs or for the skin to be shaved	21/50	• • Means integral with, or attached to, the razor for stropping the blade
19/46	• • providing for illuminating the area to be shaved or clipped	21/52	• • Handles, e.g. tiltable, flexible
19/48	• • Accessory implements for carrying out a function other than cutting hair, e.g. attachable appliances for manicuring (massage means <u>per se</u> A61H 7/00-A61H 23/00)	21/54	• Razor-blades
21/00	Razors of the open or knife type; Safety razors or other shaving implements of the planing type; Hair-trimming devices involving a razor-blade; Equipment therefor	21/56	• • characterised by the shape [3]
21/02	• involving unchangeable blades	21/58	• • characterised by the material [3]
21/04	• • Razors of the knife type	21/60	• • • by the coating material [3]
		23/00	Axes; Hatchets
		25/00	Hand cutting tools involving disc blades, e.g. motor-driven (details or components, e.g. casings, bodies, of portable power-driven tools not particularly related to the operation performed B25F 5/00) [4]
		27/00	Hand cutting tools not provided for in groups B26B 1/00-B26B 25/00, e.g. finger rings for cutting string, devices for cutting by means of wires
		29/00	Guards or sheaths for hand cutting tools; Arrangements for guiding hand cutting tools (guards for hair clippers or dry shavers B26B 19/38) [5]
		29/02	• Guards or sheaths for knives

- 29/04 • Guards or sheaths for scissors, e.g. combined with manicuring appliances (manicuring implements per se A45D 29/00)

- 29/06 • Arrangements for guiding hand cutting tools (guiding equipment or arrangements for specific cutting tools, see the particular places, e.g. for hair trimming devices A45D 24/36, for saw blades B27B 11/02, B27B 13/10) [5]

B26D CUTTING; DETAILS COMMON TO MACHINES FOR PERFORATING, PUNCHING, CUTTING-OUT, STAMPING-OUT OR SEVERING (disintegrating by knives or other cutting or tearing members which chop material into fragments B02C 18/00; cutting by abrasive fluid jets B24C 5/02; hand-held cutting tools B26B) [2, 5]

Note(s)

- This subclass covers :
 - cutting non-metallic sheet material or metal foil in general;
 - cutting other forms of non-metallic material not otherwise provided for;
 - 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.

Subclass index

CUTTING CHARACTERISED BY THE CUTTING MEMBER OR BY THE NATURE OF THE CUT PERFORMED.....1/00, 3/00
 ARRANGEMENTS FOR OPERATING AND CONTROLLING; DETAILS OF APPARATUS FOR SEVERING.....5/00, 7/00
 COMBINED APPARATUS.....9/00, 11/00

1/00 Cutting through work characterised by the nature or movement of the cutting member; Apparatus or machines therefor; Cutting members therefor [3]

- 1/01 • involving a cutting member which does not travel with the work [3]
 1/02 • • having a stationary cutting member (B26D 1/547 takes precedence) [3]
 1/03 • • • with a plurality of cutting members [3]
 1/04 • • having a linearly-movable cutting member (B26D 1/46, B26D 1/547 take precedence) [3]
 1/06 • • • wherein the cutting member reciprocates [3]
 1/08 • • • • of the guillotine type [3]
 1/09 • • • • • with a plurality of cutting members [3]
 1/10 • • • • in, or substantially in, a direction parallel to the cutting edge [3]
 1/11 • • • • • with a plurality of cutting members [3]
 1/12 • • having a cutting member moving about an axis (B26D 1/547 takes precedence) [3]
 1/14 • • • with a circular cutting member, e.g. disc cutter [3]
 1/143 • • • • rotating about a stationary axis (B26D 1/20-B26D 1/24 take precedence) [3]
 1/147 • • • • • with horizontal cutting member [3]
 1/15 • • • • • with vertical cutting member [3]
 1/153 • • • • • with inclined cutting member [3]
 1/157 • • • • rotating about a movable axis (B26D 1/20-B26D 1/24 take precedence) [3]
 1/16 • • • • • mounted on a movable arm or the like [3]
 1/18 • • • • • mounted on a movable carriage [3]
 1/20 • • • • • coacting with a fixed member [3]
 1/22 • • • • • coacting with a movable member, e.g. a roller (B26D 1/24 takes precedence) [3]

- 1/24 • • • • coacting with another disc cutter [3]
 1/25 • • • with a non-circular cutting member [3]
 1/26 • • • • moving about an axis substantially perpendicular to the line of cut [3]
 1/28 • • • • • and rotating continuously in one direction during cutting [3]
 1/29 • • • • • • with cutting member mounted in the plane of a rotating disc, e.g. for slicing beans [3]
 1/30 • • • • • with limited pivotal movement to effect cut [3]
 1/34 • • • • moving about an axis parallel to the line of cut [3]
 1/36 • • • • • and rotating continuously in one direction during cutting, e.g. mounted on a rotary cylinder [3]
 1/38 • • • • • and coacting with a fixed blade or other fixed member [3]
 1/40 • • • • • and coacting with a rotary member [3]
 1/42 • • • • • and slidably mounted in a rotary member [3]
 1/43 • • • • moving about another axis, e.g. mounted on the surface of a cone or curved body [3]
 1/44 • • having a cup or like cutting member [3]
 1/45 • • having a cutting member the movement of which is not covered by any preceding group [3]
 1/46 • • having an endless band-knife or the like [3]
 1/48 • • • with tensioning means [3]
 1/50 • • • with a plurality of band-knives or the like [3]
 1/52 • • • • having adjustable spacing between knives [3]
 1/54 • • • Guides for band-knives or the like [3]

- 1/547 • • having a wire-like cutting member (endless wire B26D 1/46; severing using a heated wire B26F 3/12) [3]
- 1/553 • • • with a plurality of wire-like cutting members [3]
- 1/56 • involving a cutting member which travels with the work, i.e. flying cutter [3]
- 1/58 • • and is mounted on a movable arm or the like [3]
- 1/60 • • and is mounted on a movable carriage [3]
- 1/62 • • and is rotating about an axis parallel to the line of cut, e.g. mounted on a rotary cylinder [3]

3/00 Cutting work characterised by the nature of the cut made; Apparatus therefor [3]

- 3/02 • Bevelling
- 3/06 • Grooving involving removal of material from the surface of the work
- 3/08 • Making a superficial cut in the surface of the work without removal of material, e.g. scoring, incising
- 3/10 • Making cuts of other than simple rectilinear form (cutting-out or stamping-out B26F 1/38)
- 3/11 • • to obtain pieces of spiral or helical form [3]
- 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
- 3/14 • Forming notches in marginal portion of work by cutting
- 3/16 • Cutting rods or tubes transversely
- 3/18 • to obtain cubes or the like [3]
- 3/20 • • using reciprocating knives
- 3/22 • • using rotating knives
- 3/24 • to obtain segments other than slices, e.g. cutting pies
- 3/26 • • specially adapted for cutting fruit or vegetables, e.g. for onions
- 3/28 • Splitting layers from work; Mutually separating layers by cutting (B26D 3/30 takes precedence) [3]
- 3/30 • Halving devices, e.g. for halving buns [3]

Note(s)

In groups B26D 5/00 and B26D 7/00, the following term is used with the meaning indicated:

- "cutting" includes cutting-out, stamping-out, punching, perforating or severing by means other than cutting.

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

- 5/02 • Means for moving the cutting member into its operative position for cutting
- 5/04 • • by fluid pressure
- 5/06 • • by electrical means
- 5/08 • Means for actuating the cutting member to effect the cut
- 5/10 • • Hand or foot actuated means
- 5/12 • • Fluid-pressure means
- 5/14 • • Crank and pin means
- 5/16 • • Cam means

- 5/18 • • Toggle-link means (B26D 5/10-B26D 5/16 take precedence)
- 5/20 • with interrelated action between the cutting member and work feed
- 5/22 • • having the cutting member and work feed mechanically connected
- 5/24 • • • including a metering device
- 5/26 • • wherein control means on the work feed means renders the cutting member operative
- 5/28 • • • the control means being responsive to presence or absence of work
- 5/30 • • having the cutting member controlled by scanning a record carrier
- 5/32 • • • with the record carrier formed by the work itself
- 5/34 • • • scanning being effected by a photosensitive device
- 5/36 • • • scanning being effected by magnetic means
- 5/38 • with means operable by the moving work to initiate the cutting action
- 5/40 • • including a metering device
- 5/42 • with interrelated action between work feed and clamp

7/00 Details of apparatus for cutting, cutting-out, stamping-out, punching, perforating, or severing by means other than cutting [5]

- 7/01 • Means for holding or positioning work [3]
- 7/02 • • with clamping means [3]
- 7/04 • • • providing adjustable clamping pressure [3]
- 7/06 • Arrangements for feeding or delivering work of other than sheet, web, or filamentary form
- 7/08 • Means for treating work or cutting member to facilitate cutting (tensioning band cutters B26D 1/48)
- 7/10 • • by heating (severing with heated members B26F 3/08)
- 7/12 • • by sharpening the cutting member
- 7/14 • • by tensioning the work
- 7/18 • Means for removing cut-out material or waste
- 7/20 • Cutting beds
- 7/22 • Safety devices specially adapted for cutting machines
- 7/24 • • arranged to disable the operating means for the cutting member
- 7/26 • Means for mounting or adjusting the cutting member; Means for adjusting the stroke of the cutting member
- 7/27 • Means for performing other operations combined with cutting (B26D 9/00 takes precedence) [3]
- 7/28 • • for counting the number of cuts or measuring cut lengths (B26D 5/24, B26D 5/40 take precedence) [3]
- 7/30 • • for weighing cut product [3]
- 7/32 • • for conveying or stacking cut product (means for removing cut-out material or waste B26D 7/18) [3]
- 7/34 • • for applying a coating, such as butter, to cut product [3]

9/00 Cutting apparatus combined with punching or perforating apparatus or with dissimilar cutting apparatus

11/00 Combinations of several similar cutting apparatus

B26F PERFORATING; PUNCHING; CUTTING-OUT; STAMPING-OUT; SEVERING BY MEANS OTHER THAN CUTTING (marking-out, perforating or making buttonholes A41H 25/00; manufacturing footwear A43D; surgery A61B; punching metal B21D; drilling metal B23B; cutting of metal by applying heat locally, e.g. flame cutting, B23K; cutting by abrasive fluid jets B24C 5/02; details common to machines for severing B26D; drilling wood B27C; drilling 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; of glass C03B; of leather C14B; of textile materials D06H; for light guides G02B 6/25; of tickets G07B) [2, 5]

Note(s)

1. This subclass covers:
 - perforating, punching, cutting-out, stamping-out;
 - severing, by means other than cutting, non-metallic sheet material or metal foil in general;
 - severing, by means other than cutting, other forms of non-metallic materials not otherwise provided for.
2. Attention is drawn to Notes (1) and (2) following the title of subclass B26D.

1/00 Perforating; Punching; Cutting-out; Stamping-out;

Apparatus therefor (perforating by laser beam B23K 26/00; subjecting the grinding tools or the abrading medium to vibration, e.g. grinding with ultrasonic frequency, B24B 1/04; perforating by sand-blasting B24C; punching cards or tapes for statistical and record purposes G06K 1/00)

- 1/02 • Perforating by punching, e.g. with relatively-reciprocating punch and bed
- 1/04 • • with selectively-operable punches
- 1/06 • • with punching tools moving with the work
- 1/08 • • • wherein the tools are carried by, and in operation move relative to, a rotative drum or similar support
- 1/10 • • • Roller type punches
- 1/12 • • to notch margins of work
- 1/14 • • Punching tools; Punching dies
- 1/16 • Perforating by tool or tools of the drill type
- 1/18 • Perforating by slitting, i.e. forming cuts closed at their ends without removal of material
- 1/20 • • with tools carried by a rotating drum or similar support (B26F 1/22 takes precedence)
- 1/22 • • to form non-rectilinear cuts, e.g. for tabs
- 1/24 • Perforating by needles or pins
- 1/26 • Perforating by non-mechanical means, e.g. by fluid jet

- 1/28 • • by electrical discharges
- 1/31 • • by radiation [3]
- 1/32 • Hand-held perforating or punching apparatus, e.g. awls
- 1/34 • • power actuated (details or components, e.g. casings, bodies, of portable power-driven tools not particularly related to the operation performed B25F 5/00) [4]
- 1/36 • • Punching or perforating pliers
- 1/38 • Cutting-out; Stamping-out
- 1/40 • • using a press, e.g. of the ram type (presses in general B30B)
- 1/42 • • • having a pressure roller
- 1/44 • • Cutters therefor; Dies therefor
- 1/46 • • • Loose press knives

3/00 Severing by means other than cutting; Apparatus therefor

(severing by grinding B24B 27/06)

- 3/02 • Tearing
- 3/04 • Severing by squeezing (B26F 3/08 takes precedence)
- 3/06 • Severing by using heat (severing by laser beam B23K 26/00)
- 3/08 • • with heated members
- 3/10 • • • with heated rollers or discs
- 3/12 • • • with heated wires
- 3/16 • • by radiation [3]