

B 31 MAKING PAPER ARTICLES; WORKING PAPER (making layered products not composed wholly of paper or cardboard B 32 B; handling thin material, e.g. sheets, webs, B 65 H)

Notes

- (1) This class covers subject matter restricted to adaptations or associations of handling sheets, webs, or blanks peculiar to paper-working, e.g. bag or box making, machinery.
- (2) This class does not cover:
 - making articles directly from paper pulp, which is covered by D 21 J;
 - handling sheets, webs, or blanks of wider applicability, irrespective of whether described or claimed only for paper-working machinery, which is regarded as being of a more comprehensive nature and is covered by B 65 H.
- (3) In this class, the following term is used with the meaning indicated:
 - “paper” covers material worked in a manner analogous to paper, e.g. plastics sheet materials, laminated materials or metal foils.

B 31 B MAKING BOXES, CARTONS, ENVELOPES, OR BAGS (incising, scoring, in general B 26 D 3/08; combined making and filling B 65 B)

Notes

- (1) In this subclass, envelopes or bags are regarded as being essentially flexible containers, the final shape of which is determined by their contents.
- (2) In this subclass, the following expression is used with the meaning indicated:
 - “boxes or cartons” includes bags formed similarly to cartons, trays with upstanding side-walls, barrels, tubes and cups, other than articles formed by winding.
- (3) In groups 3/00 to 41/00, subgroups which have not been printed in the Classification but which correspond exactly in wording, hierarchical position and subgroup numbering to the relevant subgroups of group 1/00 may be used when classifying. For example, a machinery specifically for folding sheets around mandrels could be classified either in group 9/26 (which is printed) or in group 9/28 (which is not printed).

Subclass Index

<p>MAKING IN GENERAL..... 1/00, 47/00, 49/00</p> <p>MAKING BOXES OR CARTONS</p> <p style="padding-left: 20px;">Characterised by the method of making</p> <p style="padding-left: 40px;">by folding a single piece 3/00, 5/00</p> <p style="padding-left: 40px;">by assembling pieces 13/00, 17/00</p> <p style="padding-left: 40px;">by other shaping under pressure..... 43/00</p> <p style="padding-left: 20px;">Characterised by the kind of articles</p> <p style="padding-left: 40px;">lined or reinforced articles 7/00, 9/00, 15/00</p> <p style="padding-left: 40px;">other specified articles 11/00, 13/00, 45/00</p>	<p>MAKING ENVELOPES OR BAGS</p> <p style="padding-left: 20px;">Characterised by the method of making</p> <p style="padding-left: 40px;">from sheets21/00, 31/00 to 35/00</p> <p style="padding-left: 40px;">from webs23/00, 37/00</p> <p style="padding-left: 40px;">by other shaping under pressure43/00</p> <p style="padding-left: 20px;">Characterised by the kind of articles</p> <p style="padding-left: 40px;">flat rectangular articles19/00 to 23/00</p> <p style="padding-left: 40px;">articles with bases provided for thickness29/00 to 37/00</p> <p style="padding-left: 40px;">other specified articles25/00, 27/00, 39/00, 41/00, 45/00</p>
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<p>1/00 Box, carton, envelope or bag making machinery characterised by performing specific operations (machinery for performing operations of general application, <u>see</u> the appropriate subclasses)</p> <p>1/02 . Feeding or positioning sheets, blanks, or webs</p> <p>1/04 . . Feeding sheets or blanks</p> <p>1/06 . . . from stacks</p> <p>1/08 . . . during envelope- or bag-making operations</p> <p>1/10 . . Feeding or positioning webs</p> <p>1/12 . . by air pressure or suction</p>	<p>1/14 . Cutting, e.g. perforating, punching, slitting, trimming</p> <p>1/16 . . Cutting webs to form sheets or blanks</p> <p>1/18 . . Slitting webs longitudinally</p> <p>1/20 . . Cutting sheets or blanks</p> <p>1/22 . . . Notching; Trimming edges of flaps</p> <p>1/24 . . . Making window openings</p> <p>1/25 . Surface scoring (cutting through material 1/14) [2]</p> <p>1/26 . Folding sheets, blanks, or webs</p> <p>1/28 . . around mandrels, including bottom-forming operations</p>
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- 1/30 . . . the mandrels moving
- 1/32 in circular paths
- 1/34 about their own axes
- 1/36 . . by continuously feeding same to stationary members, e.g. plates, ploughs, cores
- 1/38 . . . the members being forming-tubes
- 1/40 acting internally
- 1/42 acting externally
- 1/44 . . by plungers moving through folding dies
- 1/46 . . . and interconnecting side walls during such movement
- 1/48 by folding or tucking in locking flaps
- 1/50 by interengaging tongues and slots
- 1/52 . . by reciprocating or oscillating members, e.g. fingers other than plungers and dies
- 1/54 . . . operating on moving material
- 1/56 . . by rotary members co-operating with blades
- 1/58 . . by moving endless belts
- 1/60 Uniting opposed surfaces or edges; Taping
- 1/62 by adhesives
- 1/64 by applying heat or pressure
- 1/66 high-frequency electric heating
- 1/68 by stitching, stapling, or riveting
- 1/70 by corner stapling
- 1/72 by applying and securing strips or sheets
- 1/74 Auxiliary operations
- 1/76 Opening and distending flattened articles
- 1/78 mechanically
- 1/80 pneumatically
- 1/82 Attaching windows
- 1/84 Forming valves or applying valve inserts (connection of valves to inflatable elastic bodies [B 60 C 29/00](#))
- 1/86 Forming integral handles or mounting separate handles (making separate handles by multi-step processes [B 31 D 1/06](#))
- 1/88 Printing or embossing
- 1/90 Attaching accessories not otherwise provided for, e.g. opening or closure devices, tear strings
- 1/92 Delivering
- 1/94 singly or in succession
- 1/96 in overlapping arrangement
- 1/98 in stacks or bundles

Machinery for making boxes or cartons

Note

Attention is drawn to Note (3) following the subclass title. [4]

- 3/00 Machinery characterised by making boxes or cartons by folding single-piece sheets, blanks, or webs (5/00 takes precedence)**

- 3/02 . . and having means for feeding or positioning sheets, blanks, or webs
- 3/14 . . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 3/60 . . and having means for uniting opposed surfaces or edges, or for taping
- 3/74 . . and having means for effecting auxiliary operations
- 5/00 Machinery characterised by making boxes or cartons by folding single-piece sheets which can be set-up from a collapsed condition, including setting-up and recollapsing to break creases**
- 5/02 . . and having means for feeding or positioning sheets
- 5/14 . . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 5/60 . . and having means for uniting opposed surfaces or edges, or for taping
- 5/74 . . and having means for effecting auxiliary operations
- 7/00 Machinery characterised by making lined or internally-reinforced boxes or cartons (11/00 takes precedence)**
- 7/02 . . and having means for feeding or positioning sheets, blanks, or webs
- 7/14 . . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 7/26 . . and having means for folding sheets, blanks, or webs
- 7/60 . . and having means for uniting opposed surfaces or edges, or for taping
- 7/74 . . and having means for effecting auxiliary operations
- 9/00 Machinery characterised by making boxes or cartons having shouldered walls**
- 9/02 . . and having means for feeding or positioning sheets, blanks, or webs
- 9/14 . . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 9/26 . . and having means for folding sheets, blanks, or webs
- 9/60 . . and having means for uniting opposed surfaces or edges, or for taping
- 9/74 . . and having means for effecting auxiliary operations
- 11/00 Machinery characterised by making boxes or cartons having partitions or like inserts not integral with walls (making partitions, inserts, or reinforcements for boxes or cartons [B 31 D](#))**
- 11/02 . . and having means for feeding or positioning sheets, blanks, or webs
- 11/14 . . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 11/26 . . and having means for folding sheets, blanks, or webs
- 11/60 . . and having means for uniting opposed surfaces or edges, or for taping
- 11/74 . . and having means for effecting auxiliary operations

13/00 Machinery characterised by assembling drawer-and-shell boxes or cartons

- 13/02 . and having means for feeding or positioning sheets, blanks, or webs
- 13/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 13/26 . and having means for folding sheets, blanks, or webs
- 13/60 . and having means for uniting opposed surfaces or edges, or for taping
- 13/74 . and having means for effecting auxiliary operations

15/00 Machinery characterised by making covered or externally-reinforced boxes or cartons

- 15/02 . and having means for feeding or positioning sheets, blanks, or webs
- 15/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 15/26 . and having means for folding sheets, blanks, or webs
- 15/60 . and having means for uniting opposed surfaces or edges, or for taping
- 15/74 . and having means for effecting auxiliary operations

17/00 Machinery characterised by making other boxes or cartons by assembling several separate sheets, blanks, or webs

- 17/02 . and having means for feeding or positioning sheets, blanks, or webs
- 17/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 17/26 . and having means for folding sheets, blanks, or webs
- 17/60 . and having means for uniting opposed surfaces or edges, or for taping
- 17/74 . and having means for effecting auxiliary operations

Machinery for making envelopes or bags**Notes**

- (1) Attention is drawn to Note (3) following the subclass title. [4]
- (2) Machinery for making boxes or cartons as well as envelopes or bags is classified in groups 3/00 to 17/00.

19/00 Machinery characterised by making rectangular envelopes or bags of flat form, i.e. without structural provision at the base for thickness of contents (21/00, 23/00 take precedence)

- 19/02 . and having means for feeding or positioning sheets, blanks, or webs
- 19/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 19/26 . and having means for folding sheets, blanks, or webs
- 19/60 . and having means for uniting opposed surfaces or edges, or for taping
- 19/74 . and having means for effecting auxiliary operations

21/00 Machinery characterised by making rectangular envelopes or bags of flat form, i.e. without structural provision at the base for thickness of contents, from sheets or blanks, e.g. from flattened tubes

- 21/02 . and having means for feeding or positioning sheets or blanks
- 21/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 21/26 . and having means for folding sheets or blanks
- 21/60 . and having means for uniting opposed surfaces or edges, or for taping
- 21/74 . and having means for effecting auxiliary operations

23/00 Machinery characterised by making rectangular envelopes or bags of flat form, i.e. without structural provision at the base for thickness of contents, from webs, e.g. from flattened tubular webs (machinery characterised by cutting sheets or blanks from webs and working them to form such envelopes or bags 21/00)

- 23/02 . and having means for feeding or positioning webs
- 23/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 23/26 . and having means for folding webs
- 23/60 . and having means for uniting opposed surfaces or edges, or for taping
- 23/74 . and having means for effecting auxiliary operations

25/00 Machinery characterised by making pointed or tapered envelopes or bags

- 25/02 . and having means for feeding or positioning sheets, blanks, or webs
- 25/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 25/26 . and having means for folding sheets, blanks, or webs
- 25/60 . and having means for uniting opposed surfaces or edges, or for taping
- 25/74 . and having means for effecting auxiliary operations

27/00 Machinery characterised by making interconnected envelopes or bags

- 27/02 . and having means for feeding or positioning sheets, blanks, or webs
- 27/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 27/26 . and having means for folding sheets, blanks, or webs
- 27/60 . and having means for uniting opposed surfaces or edges, or for taping
- 27/74 . and having means for effecting auxiliary operations

- 29/00 Machinery characterised by making envelopes or bags with structural provision at the base for thickness or contents (31/00 to 37/00 take precedence)**
- 29/02 . and having means for feeding or positioning sheets, blanks, or webs
- 29/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 29/26 . and having means for folding sheets, blanks, or webs
- 29/60 . and having means for uniting opposed surfaces or edges, or for taping
- 29/74 . and having means for effecting auxiliary operations
- 31/00 Machinery characterised by making envelopes or bags with structural provision at the base for thickness of contents, from sheets or blanks, e.g. from flattened tubes (33/00, 35/00 take precedence)**
- 31/02 . and having means for feeding or positioning sheets or blanks
- 31/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 31/26 . and having means for folding sheets or blanks
- 31/60 . and having means for uniting opposed surfaces or edges, or for taping
- 31/74 . and having means for effecting auxiliary operations
- 33/00 Machinery characterised by making envelopes or bags with structural provision at the base for thickness of contents, from sheets or blanks, e.g. from flattened tubes, the longitudinal axes of the envelopes or bags being parallel to the direction in which the sheets or blanks are fed**
- 33/02 . and having means for feeding or positioning sheets or blanks
- 33/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 33/26 . and having means for folding sheets or blanks
- 33/60 . and having means for uniting opposed surfaces or edges, or for taping
- 33/74 . and having means for effecting auxiliary operations
- 35/00 Machinery characterised by making envelopes or bags with structural provision at the base for thickness of contents, from sheets or blanks, e.g. from flattened tubes, the longitudinal axes of the envelopes or bags being perpendicular to the direction in which the sheets or blanks are fed**
- 35/02 . and having means for feeding or positioning sheets or blanks
- 35/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 35/26 . and having means for folding sheets or blanks
- 35/60 . and having means for uniting opposed surfaces or edges, or for taping
- 35/74 . and having means for effecting auxiliary operations
- 37/00 Machinery characterised by making envelopes or bags with structural provision at the base for thickness of contents, from webs, e.g. from tubular webs (machinery characterised by cutting sheets or blanks from webs and working them to form such envelopes or bags 31/00)**
- 37/02 . and having means for feeding or positioning webs
- 37/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 37/26 . and having means for folding webs
- 37/60 . and having means for uniting opposed surfaces or edges, or for taping
- 37/74 . and having means for effecting auxiliary operations
- 39/00 Machinery characterised by making lined envelopes or bags**
- 39/02 . and having means for feed or positioning sheets, blanks, or webs
- 39/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 39/26 . and having means for folding sheets, blanks or webs
- 39/60 . and having means for uniting opposed surfaces or edges, or for taping
- 39/74 . and having means for effecting auxiliary operations
- 41/00 Machinery characterised by making envelopes or bags of other specific form or construction**
- 41/02 . and having means for feeding or positioning sheets, blanks, or webs
- 41/14 . and having means for cutting, e.g. perforating, punching, slitting, trimming
- 41/26 . and having means for folding sheets, blanks or webs
- 41/60 . and having means for uniting opposed surfaces or edges, or for taping
- 41/74 . and having means for effecting auxiliary operations
- 43/00 Machinery characterised by making containers by shaping, otherwise than by folding, sheet material under pressure**
- 45/00 Machinery characterised by making containers having corrugated or pleated walls**
- 47/00 Hand tools for making envelopes, bags, boxes or cartons**
- 47/02 . for making envelopes or bags without preshaped bottoms
- 47/04 . for making envelopes or bags with preshaped bottoms
- 49/00 Machinery, accessories or processes not provided for in groups 1/00 to 47/00 (forms or constructions of boxes, cartons, envelopes or bags B 65 D) [2]**

Note

Processes dependent on the use of specific machinery provided for in groups 1/00 to 45/00 are classified in those groups. [2]

- 49/02 . for making boxes or cartons
- 49/04 . for making envelopes or bags

B 31 C MAKING WOUND ARTICLES, e.g. WOUND TUBES (characteristics relating to the working of plastics B 29; shaping of plastics or substances in a plastic state B 29 C)

Note

In this subclass, the following term is used with the meaning indicated:
 – “winding” means forming two or more complete convolutions.

Subclass Index

MAKING WOUND ARTICLES CHARACTERISED BY THE METHOD USED

- Winding around mandrels..... 1/00, 3/00
- Winding without mandrels 5/00
- Winding separate webs..... 9/00

MAKING WOUND ARTICLES CHARACTERISED BY THE SHAPE OF THE ARTICLES PRODUCED

- Tubes.....1/00, 3/00, 5/00
- Cones7/00
- Other shapes.....9/00, 13/00
- AFTER-TREATMENTS, COMBINED MACHINERY..... 11/00**

1/00 Forming paper tubes or pipes by feeding at right angles to the winding mandrel centre line

- 1/02 . Machines therefor having additional mandrels
- 1/04 . and forming a tube end into a container bottom
- 1/06 . and inserting into a tube end a bottom to form a container
- 1/08 . Accessories of machines therefor not otherwise provided for

3/00 Forming paper tubes or pipes by feeding obliquely to the winding mandrel centre line

- 3/02 . and inserting into a tube end a bottom to form a container
- 3/04 . Seam processing

5/00 Forming paper tubes or pipes without mandrels

7/00 Forming conical paper articles by winding (winding blanks B 31 B)

- 7/02 . Forming truncated cones
- 7/04 . . on two or more mandrels
- 7/06 . . . and inserting into a cone end a bottom to form a container
- 7/08 . Forming pointed cones
- 7/10 . . on two or more mandrels

9/00 Simultaneous forming of cylindrical and conical shapes by winding separate webs, e.g. forming bottles (winding blanks B 31 B)

11/00 Paper-winding machinery combined with other machinery

- 11/02 . for additionally shaping the articles
- 11/04 . for applying impregnating by coating-substances during the winding
- 11/06 . for drying the wound and impregnated articles

13/00 Making wound articles not otherwise provided for

B 31 D MAKING OTHER PAPER ARTICLES (manufacture by dry processes of articles made from particles or fibres consisting of wood or other lignocellulosic or like organic material [B 27 N](#); making layered products not composed wholly of paper or cardboard [B 32 B](#); making cardboard or paper [D 21 F, H](#), making articles from wood pulp [J](#))

Note

This subclass covers the making, otherwise than by winding, of articles other than boxes, cartons, envelopes, bags, and tubes from paper, other than from paper pulp.

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| <p>1/00 Multiple-step processes for making flat articles</p> <p>1/02 . the articles being labels or tags (means or processes for attaching threads D 05)</p> <p>1/04 . the articles being napkins, handkerchiefs, towels, doilies, or the like</p> <p>1/06 . the articles being handles</p> <p>3/00 Making articles of cellular structure, e.g. insulating board</p> <p>3/02 . honeycombed structures</p> | <p>3/04 . cellular packaging articles, e.g. for bottles</p> <p>5/00 Multiple-step processes for making three-dimensional articles (assembly of garlands A 41 G 1/00; making receptacles or containers B 31 B; making tubes B 31 B, C)</p> <p>5/02 . including pressing</p> <p>5/04 . including folding or pleating, e.g. Chinese lanterns</p> |
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B 31 F MECHANICAL WORKING OR DEFORMATION OF PAPER OR CARDBOARD (cutting, trimming, in general [B 26](#); incising, scoring, in general [B 26 D 3/08](#); making layered products not composed wholly of paper or cardboard [B 32 B](#); multi-ply material of paper or cardboard, its manufacture [D 21 H](#))

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| <p>1/00 Mechanical deformation of paper or cardboard without removing material including combined deformation and laminating (embossing combined with application of ink, type marking presses, selective embossing machines B 41 F, J, K, M; machines or apparatus for embossing decorations or marks B 44 B 5/00; artists hand tools for embossing B 44 B 11/04; producing decorative effects by processes for stamping ornamental designs on surfaces B 44 C 1/24; mechanical deformation during paper or board making, kinds of paper or board D 21) [2]</p> <p>1/07 . Embossing (corrugating 1/20) [3]</p> <p>1/08 . Creasing (corrugating 1/20; zig-zag folding B 65 H 45/20) [2]</p> <p>1/10 . . by rotary tools</p> <p>1/12 . Crêping paper</p> <p>1/14 . . by doctor blades arranged crosswise to the web</p> <p>1/16 . . by elastic belts</p> <p>1/18 . . by tools arranged in the direction of web feed</p> <p>1/20 . Corrugating; Corrugating combined with laminating to other paper or cardboard layers (corrugating veneer B 27 D) [2]</p> <p>1/22 . . Making webs in which the channel of each corrugation is longitudinal with the web feed</p> <p>1/24 . . Making webs in which the channel of each corrugation is transverse to the web feed</p> | <p>1/26 . . . by interengaging toothed cylinders [2]</p> <p>1/28 combined with uniting the corrugated webs to flat webs</p> <p>1/29 . . . by making use of rods, e.g. co-operating with a toothed cylinder [2]</p> <p>1/30 . . . Tools secured to endless chains</p> <p>1/32 . . Corrugating already corrugated webs</p> <p>1/36 . Moistening and heating webs to facilitate mechanical deformation and drying deformed webs</p> <p>5/00 Attaching together paper or cardboard sheets, strips, or webs; Reinforcing edges of paper or cardboard (means for applying adhesive or glue B 05 C; stapling in box or like making B 31 B; attaching the replacement web to the expiring web during web-roll changing B 65 H 19/18; apparatus for splicing webs during handling B 65 H 21/00)</p> <p>5/02 . by crimpling or slotting</p> <p>5/04 . by exclusive use of adhesives</p> <p>5/06 . by adhesive tape</p> <p>5/08 . . for reinforcing edges</p> <p>7/00 Processes for working paper not otherwise provided for</p> <p>7/02 . Breaking the coating on paper</p> |
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