SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B31 MAKING PAPER ARTICLES; WORKING PAPER

B31B MAKING BOXES, CARTONS, ENVELOPES, OR BAGS (incising, scoring, in general B26D 3/08; combined making and filling B65B)

Note(s)

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.

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MAKING BOXES OR CARTONS
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MAKING ENVELOPES OR BAGS
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1/00 Box, carton, envelope or bag making machinery characterised by performing specific operations (machinery for performing operations of general application, see the appropriate subclasses)

1/02 • Feeding or positioning sheets, blanks, or webs
1/04 • • Feeding sheets or blanks
1/06 • • • from stacks
1/08 • • • during envelope- or bag-making operations
1/10 • • Feeding or positioning webs
1/12 • • by air pressure or suction
1/14 • Cutting, e.g. perforating, punching, slitting, trimming
1/16 • • Cutting webs to form sheets or blanks
1/18 • • Slitting webs longitudinally
1/20 • • Cutting sheets or blanks
1/22 • • • Notching; Trimming edges of flaps
1/24 • • • Making window openings
1/25 • Surface scoring (cutting through material B31B 1/14) **[2]**
1/26 • Folding sheets, blanks, or webs
1/28 • • around mandrels, including bottom-forming operations
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 B60C 29/00)
1/86 • • Forming integral handles or mounting separate handles (making separate handles by multi-step processes B31D 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

<u>Machinery for making boxes or cartons</u>

3/00 Machinery characterised by making boxes or cartons by folding single-piece sheets, blanks, or webs (B31B 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
3/26 • and having means for folding sheets, blanks, or webs
3/28 • • around mandrels, including bottom-forming operations
3/30 • • • the mandrels moving
3/32 • • • • in circular paths
3/34 • • • • about their own axes
3/36 • • by continuously feeding same to stationary members, e.g. plates, ploughs, cores
3/44 • • by plungers moving through folding dies
3/46 • • • and interconnecting side walls during such movement
3/48 • • • • by folding or tucking in locking flaps
3/50 • • • • • by interengaging tongues and slots
3/52 • • by reciprocating or oscillating members, e.g. fingers other than plungers and dies
3/60 • and having means for uniting opposed surfaces or edges, or for taping
3/64 • • by applying heat or pressure
3/72 • • by applying and securing strips or sheets
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
5/26 • and having means for folding sheets, blanks, or webs
5/36 • • by continuously feeding same to stationary members, e.g. plates, ploughs, cores
5/60 • and having means for uniting opposed surfaces or edges, or for taping
5/74 • and having means for effecting auxiliary operations
5/76 • • Opening and distending flattened articles
5/78 • • • mechanically
5/80 • • • pneumatically

7/00 Machinery characterised by making lined or internally-reinforced boxes or cartons (B31B 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
7/28 • • around mandrels, including bottom-forming operations
7/30 • • • the mandrels moving
7/32 • • • • in circular paths
7/44 • • by plungers moving through folding dies
7/46 • • • and interconnecting side walls during such movement
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 B31D)
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
13/28 • • around mandrels, including bottom-forming operations
13/30 • • • the mandrels moving
13/32 • • • • in circular paths
13/34 • • • • about their own axes
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
17/28 • • around mandrels, including bottom-forming operations
17/30 • • • the mandrels moving
17/32 • • • • in circular paths
17/44 • • by plungers moving through folding dies
17/46 • • • and interconnecting side walls during such movement
17/52 • • by reciprocating or oscillating members, e.g. fingers other than plungers and dies
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

Note(s)

Machinery for making boxes or cartons as well as envelopes or bags is classified in groups B31B 3/00-B31B 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 (B31B 21/00, B31B 23/00 take precedence)

19/02 • and having means for feeding or positioning sheets, blanks, or webs
19/10 • • Feeding or positioning webs
19/14 • and having means for cutting, e.g. perforating, punching, slitting, trimming
19/16 • • Cutting webs to form sheets or blanks
19/18 • • Slitting webs longitudinally
19/20 • • Cutting sheets or blanks
19/26 • and having means for folding sheets, blanks, or webs
19/36 • • by continuously feeding same to stationary members, e.g. plates, ploughs, cores
19/52 • • by reciprocating or oscillating members, e.g. fingers other than plungers and dies
19/60 • and having means for uniting opposed surfaces or edges, or for taping
19/62 • • by adhesives
19/64 • • by applying heat or pressure
19/66 • • • high-frequency electric heating
19/68 • • by stitching, stapling, or riveting
19/74 • and having means for effecting auxiliary operations
19/82 • • Attaching windows
19/84 • • Forming valves or applying valve inserts (connection of valves to inflatable elastic bodies B60C 29/00)
19/86 • • Forming integral handles or mounting separate handles (making separate handles by multi-step processes B31D 1/06)
19/88 • • Printing or embossing
19/90 • • Attaching accessories not otherwise provided for, e.g. opening or closure devices, tear strings
19/92 • • Delivering
19/94 • • • singly or in succession
19/96 • • • • in overlapping arrangement
19/98 • • • in stacks or bundles

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 B31B 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 (B31B 31/00-B31B 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
29/84 • • Forming valves or applying valve inserts (connection of valves to inflatable elastic bodies B60C 29/00)

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 (B31B 33/00, B31B 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 B31B 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
39/84 • • Forming valves or applying valve inserts (connection of valves to inflatable elastic bodies B60C 29/00)

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 B31B 1/00-B31B 47/00 (forms or constructions of boxes, cartons, envelopes or bags B65D) **[2]**

Note(s)

Processes dependent on the use of specific machinery provided for in groups B31B 1/00-B31B 45/00 are classified in those groups.

49/02 • for making boxes or cartons
49/04 • for making envelopes or bags