

B42B

PERMANENTLY ATTACHING TOGETHER SHEETS, QUIRES OR SIGNATURES OR PERMANENTLY ATTACHING OBJECTS THERETO (nailing or stapling in general B25C, B27F; machines for both collating or gathering and permanently attaching together sheets or signatures B42C1/12 ; temporarily attaching sheets together B42F)

Definition statement

This subclass/group covers:

Machines, devices and methods for permanently attaching together all kinds of flat or folded sheets, e.g. quires or signatures, to obtain book sections, book blocks or fillings, booklets, pads or blocks.

The permanent attachment can be performed by continuous or discontinuous stitching or otherwise, e.g. by adhesive or with binding elements like clips or finger, claw, or ring-like elements passing through the sheets. Usually, continuous stitching unites several quires or signatures to a book block with a single piece of thread. Discontinuous stitching usually uses wire staples to unite a single set of flat or folded sheets, usually comprising already a back or cover sheet, to a block or booklet.

The binding of collated flat sheets is usually performed by block stitching in a binding margin, the binding of folded sheets is usually performed by saddle stitching along the fold.

Machines, devices and methods for permanently attaching objects to sheets, quires or signatures, e.g. map sections or extensions thereto.

Relationship between large subject matter areas

Permanent and temporary attachment

Devices and methods for temporarily attaching sheets together and filing appliances are covered by subclass [B42F](#). Temporary attachment means can be repeatedly applied to, and released from, collections of papers, sheets, cards, or units thereof. Filing appliances allow to individually insert and extract each paper, sheet, card, or unit into resp. from the collection.

Subclass [B42F](#) covers as well devices and methods for temporarily attaching together sheets and objects and especially the filing aspects of albums.

Binding and bookbinding

Bookbinding subclass [B42C](#) covers particular complex binding processes typical for bookbinding:

- Processes for permanently attaching together sheets or signatures

combined with sheet collating or gathering operations, e.g. machines for both, collating or gathering and permanently attaching together the sheets or signatures or processes for making booklets, pads, or form sets from multiple webs,

- Bookbinding operations involving the association of a cover with a loose or bound set of sheets, e.g. for applying paper covers to sets of sheets to obtain paper-covered booklets by perfect binding or for casing-in fillings and bookbinding cases to obtain books,
- Multi-step processes and arrangements for making books starting with single sheets, signatures, webs or the like.

Informative references

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

Box, carton, envelope or bag making machinery having means for uniting opposed surfaces, e.g. by adhesive, stitching or stapling	B31B 1/60 , B31B 19/60
Rotary presses or machines with auxiliary folding, cutting, collecting, or depositing of sheets or webs, e.g. with devices for collecting and stapling	B41F 13/54
Article or web delivery apparatus incorporating devices for securing together articles or webs, e.g. by adhesive, stitching or stapling	B65H 37/04

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Sheet	Piece of paper or cardboard, usually rectangular, flat and printed
Quire	Set of a predetermined number of flat or folded sheets, usually 24 or 25 flat sheets or 12 folded sheets comprising 48 print pages
Signature	Printed sheet that consists of a number of print pages of a book, so

	laid out, that they will fold, usually with several folds, and bind together as a section of a book
--	---

B42B 2/00

Permanently attaching together sheets, quires or signatures by stitching with filamentary material, e.g. textile threads (discontinuously B42B4/00)

Informative references

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

Yarns or threads characterised by the materials from which they are made, by constructional features or by the purpose for which they are designed	D02G 3/02 , D02G 3/22 , D02G 3/44
Sewing in general	D05B

B42B 4/00

Permanently attaching together sheets, quires or signatures by discontinuous stitching with filamentary material, e.g. wire [N: (by stapling B25C5/00; staples F16B15/00)]

Informative references

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

Wire-working in the manufacture of staples	B21F 45/24
Manually operated portable stapling tools; Hand-held power-operated stapling tools; Staple feeding devices therefor	B25C 5/00
Stapling machines	B27F 7/17
Box, carton, envelope or bag making machinery having means for uniting opposed surfaces or edges of paper sheets, blanks or webs by stitching or	B31B 1/68 , B31B 19/68

stapling	
Rotary printing presses with auxiliary collecting and stapling	B41F 13/66
Staples	F16B 15/00
Binding sets of sheets, e.g. by stapling or stitching, adapted to electrographic charge pattern printers	G03G 15/00

B42B 5/00

Permanently attaching together sheets, quires or signatures otherwise than by stitching (by deformation thereof B31F; by adhesive peculiar to bookbinding B42C9/00)

Informative references

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

Joining, e.g. welding, plastic sheets by heating, with or without pressure	B29C 65/02
Attaching together paper or cardboard sheets, strips, or webs, e.g. by crimpling	B31F 5/00
Applying glue or adhesive peculiar to bookbinding	B42C 9/00

B42B 7/00

Permanently attaching objects, e.g. map sections, to sheets

Informative references

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

Sheets or cards attached to a continuous form set strip or web	B42D 5/02
Postcards, menu, business or like cards, letter-sheets combined with permanently fastened other articles,	B42D 15/02

e.g. photographs	
Sheets and objects temporarily attached together; Means therefor	B42F 5/00

B42B 9/00

Devices common to machines for carrying out the processes according to more than one of the preceding main groups (auxiliary equipment in making paper articles B31F; auxiliary equipment in printing machines B41; conveyers in general B65G; [N: handling sheets in general B65H])

Informative references

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

Devices performing auxiliary operations in box, carton, envelope or bag making machinery	B31C 1/74
Auxiliary equipment in printing machines, e.g. indicating, counting or control devices	B41, e.g. B41F 1/56 , B41F 3/84 , B41F 33/00
Opening devices for folded sheets or signatures, in general	B65H 5/30
Saddle-like members over which partially-unfolded sheets or signatures are fed to signature-gathering, stitching, or like machines	B65H 5/32