## CPC - COOPERATIVE PATENT CLASSIFICATION

### B PERFORMING OPERATIONS; TRANSPORTING

**NOTES omitted**

### PRINTING

**B41** PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS

**B41L** APPARATUS OR DEVICES FOR MANIFOLDING, DUPLICATING, OR PRINTING FOR OFFICE OR OTHER COMMERCIAL PURPOSES; ADDRESSING MACHINES OR LIKE SERIES-PRINTING MACHINES (printing presses or machines for industrial purposes B41F; stamps, stamping or numbering devices B41K)

**NOTES**

1. This subclass **does not cover** constituent parts common to manifolding by means of pressure-sensitive layers or intermediaries, to apparatus or machines for duplicating or printing for office or other commercial purposes, or to addressing machines or like series-printing machines, which are covered by subclass B41F.

2. In this subclass, as indicated by the references, groups B41L 15/00 and B41L 17/00 are intended to cover letterpress and lithographic printing apparatus only in so far as it is specially adapted for office or other commercial purposes; the general constructions or features of apparatus of these types are classified in subclass B41F. Constructions or features determining classification in these groups are, for example: ease of operation by clerical staff, cleanliness of operation in non-industrial environments, the use of printing surfaces constructed for the production of a limited number of copies.

3. In this subclass, the following terms are used with the meanings indicated:
   - “manifolding” means the obtaining of several copies simultaneously by means of pressure-sensitive layers when making an original;
   - “duplicating” means the obtaining of successive copies from a master, e.g. a hectographic image;
   - “stencilling” involves the use of a printing surface which is perforated to form the image, the ink flowing through the perforations on the copy material.

**WARNING**

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<table>
<thead>
<tr>
<th>Manifolding by means of pressure-sensitive layers or intermediaries</th>
<th>1/00</th>
<th>Devices for performing operations in connection with manifolding by means of pressure-sensitive layers or intermediaries, e.g. carbons; Accessories for manifolding purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/02</td>
<td></td>
<td>Devices for preparatory operations, e.g. for bringing together sheets or webs and interposed carbons; Devices combined with devices for printing, for coating with carbon, for folding</td>
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<tr>
<td>1/04</td>
<td></td>
<td>Devices for performing operations subsequent to manifolding, e.g. for separating single sheets or webs from single form sets, continuous manifold assemblies from carbons</td>
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<td>1/06</td>
<td></td>
<td>. . . on single form sets</td>
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<td>1/08</td>
<td></td>
<td>. . . on continuous manifold assemblies</td>
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<tr>
<td>1/10</td>
<td></td>
<td>. . . Separate folding or disposition of single webs</td>
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<tr>
<td>1/12</td>
<td></td>
<td>. . . Severing webs to obtain single sheets or forms, e.g. by cutting, by bursting</td>
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<td>1/14</td>
<td></td>
<td>. . . Severing edge perforations from webs</td>
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<tr>
<td>1/16</td>
<td></td>
<td>. Carriers or supply devices for pressure-sensitive material, e.g. for carbon sheets; Carbon gloves</td>
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<tr>
<td>1/18</td>
<td></td>
<td>. . for carbon webs; Continuous carbon supply mechanisms</td>
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<tr>
<td>1/20</td>
<td></td>
<td>. . . Manifolding assemblies, e.g. book-like assemblies</td>
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<td>1/22</td>
<td></td>
<td>. . . made up of single sheets or forms</td>
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<tr>
<td>1/24</td>
<td></td>
<td>. . . Pads or books</td>
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<tr>
<td>1/26</td>
<td></td>
<td>. . . Continuous assemblies made up of webs</td>
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<tr>
<td>1/28</td>
<td></td>
<td>. . . in rolled or wound form</td>
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<tr>
<td>1/30</td>
<td></td>
<td>. . . folded longitudinally</td>
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<tr>
<td>1/32</td>
<td></td>
<td>. . . folded transversely</td>
</tr>
<tr>
<td>1/321</td>
<td></td>
<td>. . . [Stacks of sheets attached to a carrier strip or web]</td>
</tr>
<tr>
<td>1/323</td>
<td></td>
<td>. . . [Uniting several webs, e.g. transversely]</td>
</tr>
<tr>
<td>1/325</td>
<td></td>
<td>. . . [longitudinally]</td>
</tr>
<tr>
<td>1/326</td>
<td></td>
<td>. . . [Severance lines; Perforations]</td>
</tr>
<tr>
<td>1/328</td>
<td></td>
<td>. . . [Removing carbon sheets]</td>
</tr>
<tr>
<td>1/34</td>
<td></td>
<td>. . . for making masters for hectographic duplicators</td>
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<tr>
<td>1/36</td>
<td></td>
<td>. . . with pressure-sensitive layers or coating other than carbon (sheet materials B41M 5/00)</td>
</tr>
</tbody>
</table>

### 3/00 Platens or like sheet supports for manifolding using pressure-sensitive layers or intermediaries, e.g. for book-keeping purposes

| 3/02 | . with stationary clamping means for holding the manifolding assembly in registered position, e.g. resilient clamps for holding non-perforated sheets (clamps for platens B41F 1/36) |
3/04 . Bars provided with pins engaging perforations in the elements
3/06 . with movable clamping or guiding means for the elements of the manifolding assembly
3/08 . with non-mechanical means for holding the elements in registered position, e.g. magnetic means
3/10 . with means for moving assembled elements step by step relative to platen or support, e.g. for column or line selection; Means for locating assembled elements when stationary
3/12 . Auxiliary devices
3/14 . Magazines or storage compartments, e.g. for slips
3/16 . Web-feeding arrangements
3/18 . Displaceable covers, e.g. with windows
3/20 . for facilitating manifolding in books
3/22 . Applications of ink ribbons; Holding, feeding, or guiding means therefor

5/00 Autographic registers or like manifolding apparatus using movable strips or webs (movable strip writing or reading apparatus B42D 19/00)
5/02 . with means for limiting movements of webs fed by hand
5/04 . with mechanisms for feeding webs or for arranging web feed; with web storage arrangements (in general B65H)
5/06 . by means of rollers, wheels, or chains (e.g. with pins) transversely
5/08 . by reciprocating mechanisms
5/10 . with mechanisms for feeding the pressure-sensitive web or webs separately from the other webs, e.g. transversely
5/12 . with means for indicating exhaustion of web supply
5/14 . with auxiliary means for printing, perforating, or severing the web
5/16 . Accessories, e.g. drawers for storing forms, for money (cash registers G07G)

Apparatus or machines for duplicating or printing for office or other commercial purposes

7/00 Apparatus for directly duplicating from hectographic originals, i.e. for obtaining copies in mirror image
7/02 . by passing original and copy-sheet or -web between rollers
7/04 . with means for guiding original or copy-sheet or -web
7/06 . with means for severing copy-sheet or -web
7/08 . with means for moistening or drying

9/00 Apparatus for indirectly duplicating from hectographic originals by means of hectographic intermediaries or transfer surfaces, i.e. "dry duplicators"
9/02 . Containers for clay or gelatin
9/04 . with flat supports over which gelatin-paper is stretched
9/06 . and with carriages for feeding the sheets
9/08 . and with devices for rolling-in and securing hectographic gelatin-paper webs
9/10 . with rotary cylinders carrying sheets of hectographic gelatin-paper

11/00 Apparatus for directly duplicating from hectographic masters in mirror image, i.e. "wet duplicators" for producing positive copies
11/02 . with a flat support carrying the masters
11/04 . and with carriages for feeding the sheets
11/06 . for stack duplicating with pressure rollers
11/08 . with rotary cylinders carrying the masters
11/10 . with two rollers between which master is stretched
11/12 . Driving gear; Control thereof
11/14 . Constructional features of masters (chemical aspects B41M)

13/00 Stencilling apparatus for office or other commercial use (screen printing B41F 15/00; stencils, stencil materials, carriers therefor B41N 1/24)
13/02 . with flat stencil carriers
13/04 . with curved or rotary stencil carriers
13/06 . with a single cylinder carrying the stencil
13/08 . with stencil carried by two or more cylinders, e.g. through the intermediary of endless bands
13/10 . Clips or clamps for securing stencils to stencil carriers
13/12 . for special purposes, e.g. for reproducing Braille characters (typewriters for Braille B41J 3/32)
13/14 . Attachments, e.g. for punching, cutting, severing
13/16 . Driving gear; Control thereof
13/18 . Inking units

15/00 Letterpress printing apparatus specially adapted for office or other commercial purposes (in general B41F; printing plates or foils, materials therefor B41N 1/00)
15/02 . with flat printing surfaces, e.g. with flat type-beds, surfaces made of thin sheet material or moulded from plastics or rubber
15/04 . of composed type locked in chases
15/06 . with curved printing surfaces, e.g. cylinders
15/08 . with stereotypes
15/10 . for multicolour printing; for perfecting
15/12 . Driving gear; Control thereof
15/14 . Attachments, e.g. for punching, cutting, severing

17/00 Lithographic printing apparatus for office or other commercial purposes (in general B41F; printing plates or foils, materials therefor B41N 1/00)
17/02 . for direct impression printing
17/04 . with flat printing surfaces
17/06 . with curved printing surfaces, e.g. cylinders
17/08 . for offset printing
17/10 . with flat printing surfaces, e.g. co-operating with travelling offset cylinders
17/12 . with curved printing surfaces, e.g. forme cylinders
17/14 . of two-cylinder type, e.g. co-operating forme and impression cylinders
17/16 . of three-cylinder type
17/18 . for multicolour printing, e.g. tandem machines; for perfecting
17/20 . without damping means, e.g. using heat-activatable inks, refrigerated printing surfaces
17/22 . Driving gear; Control thereof
17/24 . Attachments, e.g. for punching, cutting, severing
Apparatus or machines for duplicating or printing for office or other commercial purposes

19/00  Duplicating or printing apparatus or machines for office or other commercial purposes, of special types or for particular purposes and not otherwise provided for (addressographs B41L 45/00)
19/003  . [using heat, e.g. wax transfer]
19/006  . [Auxiliary numerical devices]
19/02  . having forme cylinders carrying a plurality of printing surfaces, or for performing letterpress and lithographic processes selectively or in combination (in general B41F 11/00)
19/04  . for printing from selected parts of one or more printing surfaces in one cycle, e.g. line printing (by inking selected areas B41L 27/20)
19/06  . . with co-operating forme and impression cylinders
19/08  . . . by effecting relative movement of forme and impression cylinders during printing cycle
19/10  . . . by projecting and retracting parts of the surfaces of the forme cylinders
19/12  . . . by masking parts of the printing surfaces on the forme cylinders
19/14  . . . by selective damping of the copy material
19/16  . . . by selective tripping of impression cylinders

Common details of, or accessories for, apparatus or machines for manifolding, duplicating, or printing for office or other commercial purposes

19/20  Devices for conveying sheets or webs of copy material through the apparatus or machines for manifolding, duplicating, or printing (mechanisms for conveying copy material through addressographs or like series-printing machines B41L 47/24; (feeding sheets or webs to or from printing apparatus or machines B65H; in printing presses in general B41F 21/00))
19/21  . for conveying sheets
19/24  . . Grippers
19/28  . . Combinations of endless conveyors and grippers
19/30  . . for conveying webs

20/00  Devices for treating the surfaces of sheets, webs, or other articles in connection with printing (as a final step in the manufacture of such articles, see the relevant places, e.g. B29C 71/00; D21H 23/00 or D21H 25/00; after-treatment of prints B41M 7/00)
20/02  . by dapping, e.g. by moistening copy sheets in connection with hectographic printing
20/04  . . using friction rollers
20/06  . . using brushes
20/08  . . using spray elements
20/10  . . using endless bands
20/12  . . using absorbent pads
20/14  . . Ducts, containers, or like supply devices for liquids
20/16  . . Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor
20/18  . . Construction of damping rollers
20/20  . . by heat drying, by cooling, by applying powders
20/22  . . Powdering devices, e.g. for preventing set-off
20/24  . . Print-finishing devices, e.g. for glossing prints

25/00  Devices for damping printing surfaces, e.g. moistening printing surfaces in connection with lithographic printing (applying liquids or other fluent materials to surfaces in general B05)
25/003  . [Pre-damping etching devices]
25/006  . using friction rollers
25/008  . using brushes
25/006  . using spraying elements
25/008  . using endless bands
25/010  . using absorbent pads
25/012  . Ducts, containers, or like supply devices for liquids
25/014  . Inking rollers serving also to apply ink repellent (in rotary lithographic machines B41F 7/36)
25/016  . Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor (in rotary lithographic machines B41F 7/40)
25/018  . Construction of damping rollers

27/00  Inking arrangements or devices (inking units for stencilling apparatus B41L 13/18; applying liquids or other fluent materials to surfaces, in general B05)
27/02  . adapted for inking by hand
27/04  . Ducts, containers, or supply devices or ink-level control devices (level control in general G05D 9/00)
27/06  . . Duct blades or like supply devices
27/08  . . Troughs or like reservoirs with immersed, or partly immersed rollers
27/10  . . with ink-ejecting means, e.g. pumps
27/12  . . Feed or duct rollers (messenger or moving transfer rollers B41L 27/16)
27/14  . . . adjustable for regulating supply
27/16  . . . Messenger or other moving transfer rollers
27/18  . . Continuous, e.g. endless-band apparatus
27/20  . . for inking selected parts of printing forms
27/22  . . Ink removing or collecting devices
27/24  . . for inking from interior of cylinder
27/26  . . Absorbent pads
27/28  . . Construction of inking rollers
27/30  . . Spray apparatus
27/32  . . Arrangements for tripping, lifting, adjusting, or removing inking rollers; Supports, bearings or forks therefor
27/34  . . . Lifting or adjusting devices
27/36  . . . Cams, eccentrics, wedges, or the like devices
27/38  . . . Fluid-pressure operated
27/40  . . . magnetically operated

29/00  Devices for attaching printing elements or formes to supports (in printing presses in general B41F 27/00)

29/02  . magnetic
29/04  . for attaching printing elements to flat type-beds
29/06  . for attaching elements to forme cylinders
29/08  . for attaching print formes to flat type-beds
29/10  . for attaching non-deformable curved printing formes to forme cylinders
29/12  . for attaching flexible printing formes
29/14  . Clamping devices
29/16  . . . operating automatically during operation of rotary machines to attach the printing formes to the forme cylinders
29/18  . . . electromagnetic, pneumatic, or hydraulic
Common details of, or accessories for, apparatus or machines for manifolding, duplicating, or printing for office or...

39/16 Programming systems for automatic control of sequence of operations

41/00 Cleaning arrangements or devices {(for printing presses in general B41F 35/00)}

41/02 . for forme cylinders
41/04 . for inking rollers
41/06 . for offset cylinders

43/00 Auxiliary folding, collecting, or depositing of sheets or webs (in general B65H)

43/02 . Folding
43/04 . lengthwise
43/06 . crosswise
43/08 . Folding-cylinders or drums
43/10 . Collecting
43/12 . and stapling
43/14 . Adding inserts
43/16 . Depositing

Addressing machines or like series-printing machines

45/00 Kinds or types of addressing machines or of like series-printing machines

45/02 . using printing plates
45/04 . composed on type-setting machines
45/06 . for addressing combined with other operations, e.g. franking, collating documents
45/08 . with printing surfaces in the form of belts, or carried by chains
45/10 . for addressing combined with other operations, e.g. franking, collating documents
45/12 . with separate devices for printing additional texts or images, e.g. for printing receipts on blank sheets or webs

47/00 Details of addressographs or like series-printing machines (common details of printing machines B41F 21/00 - B41F 35/00)

47/02 . Applications of printing surfaces in addressing machines or like series-printing machines (printing surfaces in general B41N)

47/04 . of flat or curved plates for relief printing
47/06 . of flat or curved stencils
47/08 . of flat or curved plates for hectographic printing
47/10 . of printing surfaces in the form of belts or chains
47/12 . Auxiliary devices, e.g. for flattening plates, for assembling plates in predetermined order, for wetting stencils

47/14 . Devices or arrangements for storing or handling plates

47/16 . Magazines
47/18 . Devices for feeding the plates in their plane
47/20 . Devices for feeding the plates otherwise than in their plane, e.g. transversely thereto
47/22 . with means for presenting plates for repeated printing operations
47/24 . Mechanisms for conveying copy material through addressographs or like series-printing machines (in general B65)

47/26 . for conveying or positioning single sheetlike articles, e.g. envelopes
47/28 . with gauging-rulers or the like, e.g. for facilitating hand-printing of copy material fed from stacks
47/30 . for conveying webs
47/32 . . . combined with devices for other purposes, e.g. for cutting, severing, gluing
47/34 . . . specially adapted for conveying chains of forms
47/36 . . . for conveying sheets or webs for tabulating purposes; Tabulating mechanisms combined with sheet or web conveyors
47/38 . . . with clamping means for head or margin
47/40 . . . with means for automatically reciprocating sheet or web transversely to enable addresses to be printed in columns side by side
47/42 . Printing mechanisms
47/44 . . . using flat platens
47/46 . . . using line-contact members, e.g. rollers, cylinders
47/48 . . . with inking or ink-ribbon devices
47/50 . . . using multiple impression-members or -surfaces, e.g. for printing series of addresses with standing context, for printing from selected parts of printing surfaces (applications of counting, numbering, or dating apparatus B41L 49/02)
47/52 . . . with movable counter-pressure plates for printing from selected areas of printing surfaces
47/54 . . . with means for automatically reciprocating printing plate transversely to enable addresses to be printed in columns side by side
47/56 . Indicating, warning, control, or safety devices (B41L 47/58 takes precedence)
47/58 . Arrangements or devices for selecting, or for facilitating selection of, text or image to be printed
47/60 . . . Markings applied to printing plates, e.g. code marks, colours, clips, perforations, edge notches, projections
47/62 . . . Selecting devices, e.g. cams, windows, positions indicators
47/64 . . . Automatic selecting devices with or without overriding manual control, e.g. with scanning-fingers, with presetting controls operable by push-buttons, with programme control by punched tapes

49/00 Accessories or attachments for addressographs or like series-printing machines
49/02 . Counting, numbering, or dating devices
49/04 . Devices for applying selection markings to printing plates