

**B41 PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS** (reproduction or duplication of pictures or patterns by scanning and converting into electrical signals H04N) [4]

**B41B MACHINES OR ACCESSORIES FOR MAKING, SETTING, OR DISTRIBUTING TYPE; TYPE; PHOTOGRAPHIC OR PHOTOELECTRONIC COMPOSING DEVICES** (photographic devices in general G03)

|                                   |             |                                        |              |
|-----------------------------------|-------------|----------------------------------------|--------------|
| HAND COMPOSING.....               | 1/00        | Machines without means for             |              |
| MECHANICAL COMPOSING              |             | composing lines prior to               |              |
| Using prefabricated type; making  |             | photography.....                       | 17/00        |
| type.....                         | 3/00; 5/00  | Electronic machines .....              | 19/00        |
| By casting the type .....         | 7/00, 9/00, | Equipment for special work .....       | 13/00        |
|                                   | 11/00       | Details of machines; auxiliaries ..... | 21/00; 23/00 |
| PHOTOGRAPHIC COMPOSING            |             | PREPARATION OF RECORD CARRIERS .....   | 25/00        |
| Machines composing lines prior to |             | CONTROL, INDICATING, SAFETY .....      | 27/00        |
| photography .....                 | 15/00       |                                        |              |

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| <b>1/00 Elements or appliances for hand composition; Chases, quoins, or galleys</b>                                                                        | 7/04                                                                                                                                                                                    | . . for casting individual characters or spaces, e.g. "monotype" machines                                                    |
| 1/02 . Printing letters; Type                                                                                                                              | 7/06                                                                                                                                                                                    | . . for composing, justifying, and casting complete lines of matrices, e.g. "monoline" machines                              |
| 1/04 . Quadrats or quads; Spaces or other justifiers                                                                                                       | 7/08                                                                                                                                                                                    | . operating with separate matrices for individual characters or spaces which are selected and assembled (details B41B 11/00) |
| 1/06 . for special purposes                                                                                                                                | 7/10                                                                                                                                                                                    | . . in which a line is composed of matrices and in which single types or spaces are cast, e.g. stringer type                 |
| 1/08 . . for inserting latest news                                                                                                                         | 7/12                                                                                                                                                                                    | . . in which a justified line is composed of matrices and a type line is cast in one piece                                   |
| 1/10 . . for inserting advertisements                                                                                                                      | 7/14                                                                                                                                                                                    | . . . the matrices being composed by hand                                                                                    |
| 1/12 . . for setting musical notations                                                                                                                     | 7/16                                                                                                                                                                                    | . . . the lines of matrices being composed and justified by machine operation, e.g. "linotype", "intertype" machines         |
| 1/14 . Composing rules, e.g. of brass                                                                                                                      | 7/18                                                                                                                                                                                    | . . . . the matrices being guided by wires, e.g. "typograph" machines                                                        |
| 1/16 . Reglets                                                                                                                                             |                                                                                                                                                                                         |                                                                                                                              |
| 1/18 . Chases                                                                                                                                              |                                                                                                                                                                                         |                                                                                                                              |
| 1/20 . Quoins or other binding means                                                                                                                       |                                                                                                                                                                                         |                                                                                                                              |
| 1/22 . Composing tables; Type cases; Storage cabinets; Washing or cleaning devices therefor                                                                |                                                                                                                                                                                         |                                                                                                                              |
| 1/24 . . Washing or cleaning devices                                                                                                                       |                                                                                                                                                                                         |                                                                                                                              |
| 1/26 . Composing or setting sticks                                                                                                                         |                                                                                                                                                                                         |                                                                                                                              |
| 1/28 . Galleys                                                                                                                                             |                                                                                                                                                                                         |                                                                                                                              |
| <b><u>Machines or other mechanical apparatus for composing</u></b>                                                                                         |                                                                                                                                                                                         |                                                                                                                              |
| <b>3/00 Apparatus for mechanical composition using prefabricated type, i.e. without casting equipment</b>                                                  | <b>9/00 Details of, or accessories for, machines for mechanical composition using fixed combinations of matrices from which type is cast or moulded</b>                                 |                                                                                                                              |
| 3/02 . Mechanical composing machines using single types or logotypes and having slide magazines therefor, e.g. flat, cylindrical, radial, single magazines | 9/02 . Combinations of matrices                                                                                                                                                         |                                                                                                                              |
| 3/04 . Means for distributing type                                                                                                                         | 9/04 . Carriers for combinations of matrices, e.g. blocks, cylinders, wheels, bars                                                                                                      |                                                                                                                              |
| 3/06 . Justifying means                                                                                                                                    | 9/06 . Mechanisms for effecting relative movements of matrix carriers and moulds for character or space selection                                                                       |                                                                                                                              |
| <b>5/00 Devices for making type or lines</b> (for mechanical composition B41B 7/00, B41B 9/00, B41B 11/00)                                                 | 9/08 . Moulding or casting devices                                                                                                                                                      |                                                                                                                              |
| 5/02 . Matrices                                                                                                                                            | 9/10 . . Moulds                                                                                                                                                                         |                                                                                                                              |
| 5/04 . Casting devices                                                                                                                                     | 9/12 . . Justifying devices                                                                                                                                                             |                                                                                                                              |
| 5/06 . . mechanically operated                                                                                                                             | 9/14 . . Supply devices for molten metal                                                                                                                                                |                                                                                                                              |
| 5/08 . Tools or auxiliaries                                                                                                                                | 9/16 . Devices for handling type after casting                                                                                                                                          |                                                                                                                              |
| 5/10 . . for polishing or finishing type (polishing in general B24B)                                                                                       | 9/18 . . Ejector mechanisms                                                                                                                                                             |                                                                                                                              |
| 5/12 . . for making type in the form of lines, e.g. by drawing or casting                                                                                  | 9/20 . . Trimming devices                                                                                                                                                               |                                                                                                                              |
| 5/14 . . for cutting spaces                                                                                                                                |                                                                                                                                                                                         |                                                                                                                              |
| <b>7/00 Kinds or types of apparatus for mechanical composition in which the type is cast or moulded from matrices</b>                                      | <b>11/00 Details of, or accessories for, machines for mechanical composition using matrices for individual characters which are selected and assembled for type casting or moulding</b> |                                                                                                                              |
| 7/02 . operating with fixed combinations of matrices (details B41B 9/00)                                                                                   | 11/02 . Matrices                                                                                                                                                                        |                                                                                                                              |
|                                                                                                                                                            | 11/04 . Space bands                                                                                                                                                                     |                                                                                                                              |
|                                                                                                                                                            | 11/06 . Storage devices for matrices or space bands                                                                                                                                     |                                                                                                                              |
|                                                                                                                                                            | 11/08 . . Magazines for matrices                                                                                                                                                        |                                                                                                                              |
|                                                                                                                                                            | 11/10 . . . for composing by hand                                                                                                                                                       |                                                                                                                              |

- 11/12 . . . Attachment of magazines to machines; Magazine-selection or magazine-shift mechanisms (controlling selection or shifting B41B 27/42)
- 11/14 . . . with escapement devices
- 11/16 . . Boxes for space bands; Escapements or guides for releasing space bands
- 11/18 . Devices or arrangements for assembling matrices and space bands (control devices therefor B41B 27/44)
- 11/20 . . Assembler guide channels
- 11/22 . . Assembler cover plates or framework
- 11/24 . . Belt conveyers co-operating with assembler guides
- 11/26 . . Devices for feeding or guiding space bands into association with matrices
- 11/28 . . Star wheels or other stacking devices for matrices and space bands; Guides associated therewith
- 11/30 . . Assembler elevators or associated mechanisms, e.g. braking devices, retaining pawls, line resistants, delivery slides
- 11/32 . . Transfer channels or line-delivery carriages
- 11/34 . . First elevators or associated mechanisms
- 11/36 . . for presenting matrices or space bands directly to moulds
- 11/38 . Devices for aligning or clamping lines of matrices and space bands
- 11/40 . . Jaw clamps; Operating devices therefor
- 11/42 . . . for quadding and centring
- 11/44 . . . for justifying
- 11/46 . . Aligning devices
- 11/48 . . Cleaning devices for aligning jaws (cleaning matrices B41B 11/96)
- 11/50 . . Vice frames; Devices for releasing or locking
- 11/52 . Moulding or casting devices or associated mechanisms
- 11/54 . . Moulds; Liners therefor
- 11/56 . . . Mould wheels; Slides or driving gear therefor
- 11/58 . . . . with locking wedges
- 11/60 . . . . adjustable or removable
- 11/62 . . . . with interchangeable moulds
- 11/64 . . . . with a series of moulds and mechanism for selecting individual moulds
- 11/66 . . . mounted on reciprocable carriages
- 11/68 . . . with provision for adjusting length or width of slot; with a plurality of slots
- 11/70 . . . for casting type-bars of special form, e.g. with projections
- 11/72 . . Devices for trimming type-bars; Cleaning devices for trimming knives; Ejectors for type-bars
- 11/74 . . Devices for supplying molten metal
- 11/76 . . . Pots (melting pots for casting stereotype plates B41D 3/20)
- 11/78 . . . . movable towards, and away from, mould
- 11/80 . . . . with stirrers or means for removing dross
- 11/82 . . . . associated with mechanisms for introducing metal in solid form
- 11/84 . . . . Throats or mouthpieces; Wipers for mouthpieces
- 11/86 . . . . Heaters for pots; Temperature-control devices
- 11/88 . . . Pumps; Stop-motions or safety devices therefor
- 11/90 . Arrangements or devices for distributing matrices or space bands after casting or moulding
- 11/92 . . Second elevators
- 11/94 . . Screw conveyers
- 11/96 . Devices for cooling or cleaning matrices

### **Photographic or photoelectronic composing devices**

#### **13/00 Equipment specially adapted for photographing mounted characters or the like, e.g. advertisements, lines**

- 13/02 . the characters being composed or mounted by hand, and photographed simultaneously
- 13/04 . . with means for justifying
- 13/06 . . . by elastic or extensible type-line carriers
- 13/08 . . . by optical line correction
- 13/10 . the characters being progressively photographed one by one

#### **15/00 Photographic composing machines with movable character carriers for composing lines of characters prior to photography**

- 15/02 . with means for photographing complete lines
- 15/04 . . and with carriers for individual characters
- 15/06 . . and with carriers for complete sets of characters, e.g. slidable elongated members, rotary wheels
- 15/08 . with means for photographing composed characters in succession
- 15/10 . Details
- 15/12 . . Character carriers; Cleaning devices therefor
- 15/14 . . . with a single character, or with combinations of different styles of a single character
- 15/16 . . . with combinations of different characters
- 15/18 . . . with parts of characters for building up complex characters, e.g. oriental characters
- 15/20 . . Devices for handling or storing character carriers
- 15/22 . . . Magazines
- 15/24 . . . for justifying purposes
- 15/26 . . . for repeating a character
- 15/28 . . . Photographic devices (in general G03)
- 15/30 . . . Composing cameras
- 15/32 . . . Film-handling mechanisms
- 15/34 . . . Adjusting enlargement or register; Correcting exposure time

#### **17/00 Photographic composing machines having fixed or movable character carriers and without means for composing lines prior to photography**

- 17/02 . with manually-adjustable character carriers to enable characters to be photographed in succession
- 17/04 . with a carrier for all characters in at least one font
- 17/06 . . with an adjustable carrier
- 17/08 . . with a fixed carrier
- 17/10 . . with a continuously-movable carrier
- 17/12 . . with means for moving the optical path for photographing characters, e.g. intermittently
- 17/14 . . . continuously
- 17/16 . . with means for moving the film in its plane for photographing characters in succession
- 17/18 . Details
- 17/20 . . Character carriers; Cleaning devices therefor
- 17/22 . . . with a single character; with a single character in more than one style
- 17/24 . . . with all characters
- 17/26 . . . . on belts
- 17/28 . . . . on polygonal rods
- 17/30 . . . . on a sheet of square or rectangular shape
- 17/32 . . . . on a flat disc
- 17/34 . . . . on a cylinder
- 17/36 . . . with selection indicators
- 17/38 . . . with means for indicating the width

- 17/40 . . . . in caliper form
- 17/42 . . . . in coded form
- 19/00 Photoelectronic composing machines [3]**
  - 19/01 . having electron-beam tubes producing an image of at least one character which is photographed [3]
  - 19/02 . . the characters appearing on the screen in succession [3]
  - 19/04 . . . at the same place [3]
  - 19/06 . . . at different predetermined places [3]
  - 19/08 . . with combinations of characters appearing on the screen at the same time [3]
  - 19/10 . . . in unbroken lines or columns [3]
  - 19/12 . . . in broken lines or columns [3]
  - 19/14 . . . and presenting a text of more than one line [3]
  - 19/16 . . Character carriers associated with electron-beam tubes [3]
- 21/00 Common details of photographic composing machines of the kinds covered in groups B41B 17/00 and B41B 19/00**
  - 21/02 . Shutters in optical systems (in general G03B)
  - 21/04 . . for selecting characters
  - 21/06 . . for adjusting exposures
  - 21/08 . Light sources; Devices associated therewith, e.g. control devices
    - 21/10 . . Single light sources
    - 21/12 . . Stroboscopic light sources
    - 21/14 . . Combinations of light sources
  - 21/16 . Optical systems (shutters B41B 21/02; light sources B41B 21/08)
    - 21/18 . . defining a single optical path
    - 21/20 . . . with means for moving stepwise
    - 21/22 . . . with means for moving continuously
    - 21/24 . . defining multiple optical paths
    - 21/26 . . . with means for selecting individual optical paths (means for moving the optical path B41B 17/12)
    - 21/28 . . . with means for fount selection
  - 21/30 . Electron-beam tubes or charactrons (in general H01J 31/00)
  - 21/32 . Film carriers; Film-conveying or -positioning devices (film-handling means in line-composing photographic devices B41B 15/32; machines with means for moving the film in its plane for photographing characters in succession B41B 17/16)
    - 21/34 . . with positioning mechanisms
    - 21/36 . . . for feeding films stepwise in line direction
    - 21/38 . . . for feeding films continuously in line direction
    - 21/40 . . . for line spacing
    - 21/42 . . . for subscript or superscript notation
    - 21/44 . . adjustable for enlarging purposes
- 23/00 Auxiliary devices for modifying, mixing, or correcting text or layout in connection with photographic or photoelectronic composing**
  - 23/02 . for mixing by line-by-line projection of parts of texts from a number of films on to another
  - 23/04 . for facilitating hand correction of texts
  - 23/06 . for correcting texts by removing incorrect lines from one film and splicing-in corrected lines from another film

**Marking record carriers used for controlling composing machines; Control, indicating, or safety devices or systems for composing machines of various kinds or types**

- 25/00 Apparatus specially adapted for preparation of record carriers for controlling composing machines** (for casting individual characters or spaces, e.g. in "monotype" machines, B41B 7/04; methods for marking or reproducing record carriers having digital data thereon in general G06K 1/00)
  - 25/10 . incorporating devices for line justification, e.g. counting and indicating devices for length of line
  - 25/12 . . comprising elements which circulate from and to magazines
  - 25/14 . . operating without space bands
  - 25/16 . . using a binary code for the width of the matrices
  - 25/18 . combined with type-setting machines
  - 25/20 . Auxiliary devices; Devices serving special purposes
  - 25/22 . . for indicating length of line
  - 25/24 . . for error correction
  - 25/26 . . for changing the fount of type
- 27/00 Control, indicating, or safety devices or systems for composing machines of various kinds or types** (computers in general G06F)
  - 27/02 . Systems for controlling all operations
  - 27/04 . . Keyboards
  - 27/06 . . . operable by input of recorded or stored information, e.g. on punched tapes
  - 27/08 . . . . from several sources
  - 27/10 . . with direct control of all operations by input of recorded or stored information
    - 27/12 . . . on tapes
    - 27/14 . . . . on punched tapes
    - 27/16 . . . . on magnetic tapes
    - 27/18 . . . from memory devices
    - 27/20 . . . . from electromagnetic devices, e.g. memory matrices
    - 27/22 . . . from several sources
    - 27/24 . . of several associated machines
    - 27/26 . . with means for temporarily arresting input of recorded or stored information to introduce time delays
  - 27/28 . Control, indicating, or safety devices for individual operations or machine elements (in devices for supplying molten metal B41B 11/86, B41B 11/88; for light sources B41B 21/08)
  - 27/30 . . for arresting or varying speed of one operation in response to failure or variation in speed of another operation
  - 27/32 . . for line-justification operations
  - 27/34 . . . without the use of space bands
  - 27/36 . . . using electronic devices
  - 27/38 . . for measuring length of composed lines; for reading composed characters
  - 27/40 . . for proof-printing operations
  - 27/41 . . Printing mechanisms coupled to typographical composing machines
  - 27/42 . . for controlling selection of shifting of matrix magazines
  - 27/44 . . for controlling assembly of matrices and space bands
  - 27/46 . . . for controlling insertion of space bands (for line justification B41B 27/32)

**B41B**

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for deleting errors or inserting corrections  
(devices, non-fluid media or methods for
- 27/50

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cancelling or correcting errors in typewriters or  
selective printing mechanisms B41J 29/26)  
operated by coupled machines