

SECTION D — TEXTILES; PAPER

D02 YARNS; MECHANICAL FINISHING OF YARNS OR ROPES; WARPING OR BEAMING

Note(s)

In this class, the following terms are used with the meanings indicated:

- "fibre" means a relatively-short, elongated member of natural or man-made material;
- "filament" means an endless or quasi-endless, elongated member of natural or man-made material;
- "yarn" means a unitary assembly of fibres, usually produced by spinning;
- "thread" means an assembly of yarns or filaments, usually produced by twisting;
- "synthetic" fibres or filaments means fibres or filaments or the like manufactured from synthesising polymers or small molecules. Examples are polyamide, acrylic, polyester or carbon fibres;
- "artificial" fibres or filaments means fibres or filaments or the like manufactured by man from natural polymers or their derivatives. Examples are regenerated cellulosic fibres or semi-synthetic fibres;
- "man-made" fibres or filaments means fibres or filaments which are manufactured by man including "synthetic" or "artificial" fibres.

D02G CRIMPING OR CURLING FIBRES, FILAMENTS, YARNS, OR THREADS; YARNS OR THREADS

Note(s)

Attention is drawn to the Note following the title of class D02.

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| <p>1/00 Producing crimped or curled fibres, filaments, yarns or threads, giving them latent characteristics (yarns <i>per se</i> D02G 3/00; during formation of man-made filaments, threads or the like D01D 5/22; general aspects of chemical treatment D06M)</p> | <p>3/10</p> <p>3/12</p> <p>3/14</p> <p>3/16</p> <p>3/18</p> <p>3/20</p> <p>3/22</p> <p>3/24</p> <p>3/26</p> <p>3/28</p> <p>3/30</p> <p>3/32</p> <p>3/34</p> <p>3/36</p> <p>3/38</p> <p>3/40</p> <p>3/42</p> <p>3/44</p> <p>3/46</p> <p>3/48</p> | <ul style="list-style-type: none"> • • Yarns or threads formed from collagenous materials, e.g. catgut • • Threads containing metallic filaments or strips • • Horse-hair threads • • Yarns or threads made from mineral substances • • • from glass or the like • • • from asbestos • Yarns or threads characterised by constructional features • • Bulked yarns or threads, e.g. formed from staple fibre components with different relaxation characteristics • • with characteristics dependent on the amount or direction of twist • • • Doubled, plied, or cabled threads • • • Crêped or other highly-twisted yarns or threads • • Elastic yarns or threads • • Yarns or threads having slubs, knops, spirals, loops, tufts, or other irregular or decorative effects, i.e. effect yarns • • Cored or coated yarns or threads (elastic yarns or threads D02G 3/32) • • Threads in which fibres, filaments, or yarns are wound with other yarns or filaments (covering endless core threads with fibres by using open-end spinning techniques D01H 4/00) • • Yarns in which fibres are united by adhesives; Impregnated yarns or threads • • Chenille threads • Yarns or threads characterised by the purpose for which they are designed • • Sewing-cottons or the like • • Tyre cords |
| <p>1/02 • by twisting, fixing the twist and backtwisting, i.e. by imparting false twist</p> <p>1/04 • • Devices for imparting false twist</p> <p>1/06 • • • Spindles</p> <p>1/08 • • • Rollers</p> <p>1/10 • using knife edges, e.g. heated knife edges, for edge crimping</p> <p>1/12 • using stuffer boxes</p> <p>1/14 • using grooved rollers or gear-wheel-type members</p> <p>1/16 • using jets or streams of turbulent gases, e.g. air, steam</p> <p>1/18 • by combining fibres, filaments, or yarns, having different shrinkage characteristics</p> <p>1/20 • Combinations of two or more of the above-mentioned operations or devices; After-treatments for fixing crimp or curl</p> | | |
| <p>3/00 Yarns or threads, e.g. fancy yarns; Processes or apparatus for the production thereof, not otherwise provided for (for producing crimped or curled yarns D02G 1/00)</p> | | |
| <p>3/02 • Yarns or threads characterised by the material or by the materials from which they are made</p> <p>3/04 • • Blended or other yarns or threads containing components made from different materials</p> <p>3/06 • • Threads formed from strip material other than paper</p> <p>3/08 • • Paper yarns or threads</p> | | |

D02G

D02H WARPING, BEAMING, OR LEASING

Note(s)

Attention is drawn to the Note following the title of class D02.

Subclass index

CREELS..... 1/00
WARPING; BEAMING; WARPING AND BEAMING COMBINED..... 3/00, 5/00, 7/00
LEASING..... 9/00
OTHER MACHINES AND METHODS..... 11/00
DETAILS OF MACHINES..... 13/00

1/00	Creels, i.e. apparatus for supplying a multiplicity of individual threads	13/08	• • • electrical
		13/10	• • responsive to thread-measuring devices, e.g. stopping the machine when required length of warp has been wound
3/00	Warping machines		
5/00	Beaming machines	13/12	• Variable-speed driving mechanisms
5/02	• combined with apparatus for sizing or other treatment of warps (sizing <u>per se</u> D06B)	13/14	• • controlled automatically by tension in the warp
		13/16	• Reeds, combs, or other devices for determining the spacing of threads
7/00	Combined warping and beaming machines	13/18	• • with adjustable spacing
		13/20	• • with fixed spacing
9/00	Leasing	13/22	• Tensioning devices
9/02	• Lease rods or bands	13/24	• • for individual threads
11/00	Methods or apparatus not provided for in groups D02H 1/00-D02H 9/00, e.g. for cleaning the warp	13/26	• • for threads in warp form (controlling the driving of beams, or the like, to keep tension constant D02H 13/14)
13/00	Details of machines of the other groups of this subclass	13/28	• Warp beams (cloth beams D03D 49/20)
		13/30	• • with flanges
13/02	• Stop motions	13/32	• • • adjustable
13/04	• • responsive to breakage, slackness, or excessive tension of threads, with detectors for individual threads or small groups of threads	13/34	• • sectional
		13/36	• • Means for attaching warp to beam
13/06	• • • mechanical	13/38	• Storage racks for beams

D02J FINISHING OR DRESSING OF FILAMENTS, YARNS, THREADS, CORDS, ROPES, OR THE LIKE (curling or crimping D02G; by treatment with liquids, gases or vapours D06B; finishing other than by liquid treatment, of yarns in warp or sheet form D06C; for chemical matters, see D06L, D06M, D06P, D06Q; treatment during rope-making, apparatus for treating ropes auxiliary to rope-making D07B)

Note(s)

Attention is drawn to the Note following the title of class D02.

Subclass index

MODIFYING THE STRUCTURE, FORM, OR SURFACE..... 1/00, 3/00
REMOVING UNDESIRABLE BODIES..... 7/00
COMBINATIONS OF ABOVE PROCESSES NOT COVERED BY ONE SINGLE GROUP..... 11/00
HEATING OR COOLING OPERATIONS NOT SPECIFIC TO ONE OF THE ABOVE PROCESSES..... 13/00

1/00	Modifying the structure or properties resulting from a particular structure; Modifying, retaining, or restoring the physical form or cross-sectional shape, e.g. by use of dies or squeeze rollers (modifying only the surface D02J 3/00)	1/06	• Imparting irregularity, e.g. slubbing or other non-uniform features, e.g. high- and low-shrinkage or strengthened and weakened sections
		1/08	• Interlacing constituent filaments without breakage thereof, e.g. by use of turbulent air streams
1/02	• Bulking, e.g. looping (by crimping, by curling D02G)	1/12	• Modifying stretch/bulk properties of textured yarns or the like by after-treatment
1/04	• Compacting	1/14	• Rendering uniform or evening non-uniform features

- 1/16 • Rubbing or similar working, e.g. to redistribute or remove fibres
- 1/18 • Separating or spreading
- 1/20 • Stressing or stress-relieving, e.g. by vibration or subjection to electrostatic stress or electric discharge
- 1/22 • Stretching or tensioning, shrinking or relaxing, e.g. by use of overfeed and underfeed apparatus, or preventing stretch (stretch spinning D01D 5/12)
- 3/00 Modifying the surface**
- 3/02 • by abrading, scraping, scuffing, cutting, or nicking (preliminary roughening of fibres, e.g. for spinning, D01G 3/00)
- 3/04 • by brushing
- 3/06 • by polishing, e.g. glazing, glossing
- 3/08 • • by compressing, e.g. by calendaring or ironing
- 3/10 • by indenting
- 3/12 • by removing projecting ends of fibres
- 3/14 • • by shearing
- 3/16 • • by singeing
- 3/18 • Treating with particulate, semi-solid, or solid substances, e.g. wax (during package formation B65H 71/00; waxing yarns or the like as incidental measures during spinning or twisting D01H 13/30)
- 7/00 Cleaning, e.g. removing dust, loose fibres, charred ends** (in combination with the shearing, singeing, or otherwise removing of projecting fibre ends D02J 3/12, D02J 3/14, D02J 3/16)
- 11/00 Combinations, not covered by any one of groups D02J 1/00-D02J 7/00, of processes provided for in such groups; Plant for carrying-out such combinations of processes**
- 13/00 Heating or cooling the yarn, thread, cord, rope, or the like, not specific to any one of the processes provided for in this subclass** (heating, cooling, or drying during spinning or twisting D01H; drying of yarns, or the like, in general F26B)