## CPC COOPERATIVE PATENT CLASSIFICATION

### D TEXTILES; PAPER

### TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

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

(NOTE omitted)

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

#### NOTE

Attention is drawn to the note following the title of class  $\underline{D02}$ 

#### **WARNING**

machine}

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

1/00	Producing crimped or curled fibres, filaments, yarns, or threads, giving them latent characteristics (yarns per se D02G 3/00; during	1/028	• • {by twisting or false-twisting at least two filaments, yarns or threads, fixing the twist and separating the filaments, yarns or threads}
	formation of artificial filaments, threads, or the like <u>D01D 5/22</u> ; general aspects of chemical treatment	1/0286	• • {characterised by the use of certain filaments, fibres or yarns}
	<u>D06M</u> )	1/0293	• • {composed, at least in part, of natural fibres}
	NOTE	1/04	Devices for imparting false twist
	In the context of this group, the terms "texturing" or "texturising" encompass curling and crimping	1/06 1/08 1/082	<ul><li> Spindles</li><li> Rollers {or other friction causing elements}</li><li> {with the periphery of at least one disc}</li></ul>
1/002	<ul> <li>{by knitting, weaving or tufting, fixing and then unravelling}</li> </ul>	1/085	• • • {between crossed belts}
		1/087	• • • {between the flanks of rotating discs}
1/004	• {by heating fibres, filaments, yarns or threads so as to create a temperature gradient across	1/10	<ul> <li>using knife edges, e.g. heated knife edges, for edge crimping</li> </ul>
	their diameter, thereby imparting them latent	1/12	<ul> <li>using stuffer boxes</li> </ul>
1/006	asymmetrical shrinkage properties} • {by impinging the yarn against an uneven surface	1/122	• • {introducing the filaments in the stuffer box by means of a fluid jet}
1/008	<ul><li>and thereby deforming it}</li><li>• {with provision for imparting irregular effects to the</li></ul>	1/125	<ul> <li>{including means for monitoring or controlling yarn processing}</li> </ul>
1/02	yarn)  • by twisting, fixing the twist and backtwisting, i.e. by	1/127	{including drawing or stretching on the same machine}
	imparting false twist	1/14	<ul> <li>using grooved rollers or gear-wheel-type members</li> </ul>
1/0206	• • {by false-twisting}	1/16	<ul> <li>using jets or streams of turbulent gases, e.g. air,</li> </ul>
1/0213	• • • {after drawing the yarn on the same machine}	1/10	steam {(interlacing filaments D02J 1/08)}
1/022	• • • {while simultaneously drawing the yarn}	1/161	• • {yarn crimping air jets}
1/0226	{multiple false-twisting}	1/162	• • {with provision for imparting irregular effects to
1/0233	• • • {with real twist being imparted to the yarn		the yarn}
	before or after false-twisting}	1/164	• • {in the presence of a liquid, e.g. a crimp finish}
1/024	• • • { with provision for imparting irregular effects to the yarn}	1/165	• • {characterised by the use of certain filaments or yarns}
1/0246	• • • {at least some of the filaments being simultaneously broken or cut, e.g. by stretching	1/167	<ul> <li>{including means for monitoring or controlling yarn processing}</li> </ul>
1/0253	<ul><li>or abrading }</li><li>• { while bonding at least some of the filaments</li></ul>	1/168	{including drawing or stretching on the same machine}
	or fibres together}	1/18	<ul> <li>by combining fibres, filaments, or yarns, having</li> </ul>
1/026 1/0266 1/0273	<ul><li> {in the presence of a crimp finish}</li><li> {false-twisting machines}</li><li> {threading up and starting the false-twisting</li></ul>		different shrinkage characteristics {(D02G 1/004 takes precedence)}
	machine		

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1/20	Combinations of two or more of the above- mentioned operations or devices; After-treatments	3/288	• • • { with same direction of twist, but with an amount of twist varying along the thread}
	for fixing crimp or curl	3/30	Crêped or other highly-twisted yarns or threads
1/205	• • {After-treatments for fixing crimp or curl}	3/32	• Elastic yarns or threads {; Production of plied or cored yarns, one of which is elastic}
3/00	Yarns or threads, e.g. fancy yarns; Processes or apparatus for the production thereof, not otherwise provided for (for producing crimped or	3/322	• • • {using hollow spindles (details of spindles, e.g. bearings D01H 7/86)}
	curled yarns D02G 1/00)	3/324	• • • {using a drawing frame}
		3/326	• • • {the elastic properties due to the construction
	<u>NOTE</u>		rather than to the use of elastic material}
	In this main group, further classification in	3/328	{containing elastane}
	indexing scheme D10B for aspects relating to yarns is required.	3/34	• Yarns or threads having slubs, knops, spirals, loops, tufts, or other irregular or decorative effects, i.e. effect yarns {(carding machines for
3/02	<ul> <li>Yarns or threads characterised by the material or by the materials from which they are made</li> </ul>		producing decorative or fancy effects in products <u>D01G</u> ; drafting machines with varying draft
3/025	• • {Yarns or threads formed from hair (horse-hair threads <u>D02G 3/14</u> )}	3/343	according to a pre-arranged pattern <u>D01H 5/36</u> )}  • • {using hollow spindles (details of spindles, e.g.
3/04	Blended or other yarns or threads containing components made from different materials		bearings <u>D01H 7/86</u> )}
3/042	• • • {all components being made from natural	3/346	<ul> <li>• { with coloured effects, i.e. by differential dyeing process}</li> </ul>
3/045	<ul><li>material \( \)</li><li> \( \) {all components being made from artificial or synthetic material \( \)</li></ul>	3/36	<ul> <li>Cored or coated yarns or threads ({D02G 3/34, D02G 3/40 take precedence}; elastic yarns or threads D02G 3/32)</li> </ul>
3/047	• • · {including aramid fibres}	3/362	• • • {using hollow spindles (details of spindles, e.g.
3/06	Threads formed from strip material other than		bearings <u>D01H 7/86</u> )}
3/08	paper  Paper yarns or threads	3/365	• • • {around which a reel supporting feeding spool rotates}
3/10	Yarns or threads formed from collagenous	3/367	• • • {using a drawing frame}
3/10	materials, e.g. catgut {(surgical threads or yarns	3/38	
	A61L)	3/38	<ul> <li>Threads in which fibres, filaments, or yarns are wound with other yarns or filaments, {e.g.</li> </ul>
3/12	Threads containing metallic filaments or strips		wrap yarns, i.e. strands of filaments or staple
3/14	Horse-hair threads		fibres are wrapped by a helically wound binder
			yarn; (D02G 3/32 takes precedence)); (covering
3/16	• Yarns or threads made from mineral substances		endless core threads with fibres by using open-
3/18	from glass or the like		end spinning techniques <u>D01H 4/00</u> )
3/182	• • • { the glass being present only in part of the structure }	3/385	. • {using hollow spindles, e.g. making coverspun yarns}
3/185	{in the core}	3/40	• • Yarns in which fibres are united by adhesives;
3/187	• • • • {in the sheath}	3/40	Impregnated yarns or threads
3/20	from asbestos	3/402	• • • {the adhesive being one component of the yarn,
3/22	<ul> <li>Yarns or threads characterised by constructional features {, e.g. blending, filament/fibre (piecing of</li> </ul>		i.e. thermoplastic yarn}
3/24	yarns or threads <u>D01H 15/00</u> )}  • Bulked yarns or threads, e.g. formed from staple	3/404	• • { Yarns or threads coated with polymeric solutions}
	fibre components with different relaxation characteristics	3/406	• • • {where the polymeric solution is removable at a later stage, e.g. by washing}
3/26	with characteristics dependent on the amount or	3/408	• • • {Flocked yarns}
3/20	direction of twist	3/42	Chenille threads
3/28	<ul> <li>Doubled, plied, or cabled threads {(D02G 3/32, D02G 3/36 take precedence; effect yarns D02G 3/34; details of spindles, e.g. bearings D01H 7/86)}</li> </ul>	3/44	• Yarns or threads characterised by the purpose for which they are designed {(protective gloves A41D 19/00; protective clothing A62B 17/00; ropes D07B 1/02)}
3/281	• • • {using one drawing frame for two slivers	3/441	• • { Yarns or threads with antistatic, conductive or
	and twisting of the slivers to a single yarn, i.e. spin-twisting (guides having associated actuators with mutual action D01H 13/1658)}		radiation-shielding properties (electroconductive, anti-static or radiation-shielding filaments D01F 1/09, D01F 1/106; anti-static fabrics D03D 15/533; conducting, insulating or anti-static layers for floor coverings D06N 7/0042)}
3/283	• • • { using hollow spindles through which one yarn is running}	3/442	• • {Cut or abrasion resistant yarns or threads}
3/285	• • • { one yarn running over the feeding spool of another yarn }	3/443	• • {Heat-resistant, fireproof or flame-retardant yarns or threads (fire- or flame-proof filaments
3/286	• • • { with alternatively "S" and "Z" direction of twist, e.g. Self-twist process }		<u>D01F 1/07</u> ; woven fabrics using heat-resistant or fireproof threads <u>D03D 15/513</u> )}

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3/444	• • {Yarns or threads for use in sports applications
	(strings for tennis rackets A63B 51/02)}
3/445	• • {Yarns or threads for use in floor fabrics (floor
	fabrics A47G 27/00; floor coverings on textile
	basis <u>D06N 7/0005</u> )}
3/446	• • {Yarns or threads for use in automotive
	applications}
3/447	{Yarns or threads for specific use in general
	industrial applications, e.g. as filters or
	reinforcement}
3/448	{Yarns or threads for use in medical applications
	(D02G 3/449 takes precedence; surgical suture
	materials <u>A61L 17/00</u> )}
3/449	{Yarns or threads with antibacterial properties
	(filaments containing agents inhibiting growth of
	microorganisms D01F 1/103)}
3/46	Sewing-cottons or the like
3/48	• Tyre cords {(tyre reinforcements <u>B60C 9/00</u> ;
	metal cords for reinforcing rubber or plastic
	articles <u>D07B 1/0606</u> )}

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