

# CPC COOPERATIVE PATENT CLASSIFICATION

## D TEXTILES; PAPER

### TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

**D01** **NATURAL OR ARTIFICIAL THREADS OR FIBRES; SPINNING** ([metal threads B21](#); [fibres or filaments of softened glass, minerals, or slag C03B 37/00](#); [yarns D02](#))  
(NOTE omitted)

**D01H** **SPINNING OR TWISTING** ([unwinding, paying-out, forwarding, winding or coiling filamentary material not intimately associated with spinning or twisting B65H](#); [cores, formers, supports or holders for coiled or wound material, e.g. bobbins B65H](#); [twisting oakum D01G 35/00](#); [crimping or curling of fibres, filaments or yarns D02G 1/00](#); [making chenille D03D, D04D 3/00](#); [testing yarns, rovings, slivers, fibres, or fibre webs G01](#))

#### Kinds or types of spinning or twisting machines; Drafting machines or arrangements; Twisting arrangements

	1/16	. . Framework; Casings; Coverings {Removal of heat; Means for generating overpressure of air against infiltration of dust; Ducts for electric cables}
<b>1/00</b> Spinning or twisting machines in which the product is wound-up continuously (open-end spinning machines <a href="#">D01H 4/00</a> {; doubling of yarns <a href="#">B65H 54/00+T</a> ; doubled, plied or cabled threads <a href="#">D02G 3/28</a> , e.g. using hollow spindles <a href="#">D02G 3/283</a> ; spin-twisting <a href="#">D02G 3/281</a> ; threads with alternately "S" and "Z" direction of twist, e.g. self-twist process, <a href="#">D02G 3/286</a> ; wrapping strands of filaments or staple fibres by a binder yarn <a href="#">D02G 3/38</a> )	1/162	. . . {for ring type}
	1/164	. . . {for flyer type}
	1/166	. . . {for two-for-one type}
	1/168	. . . {Arrangements for the sound-dampening of the machines (in general <a href="#">G10K 11/00</a> )}
	1/18	. . Supports for supply packages
	1/183	. . . {Overhead suspension devices}
1/003 . {Twisting machines in which twist is imparted from the supply packages, e.g. uptwist}	1/186	. . . {for supplying from cans}
1/006 . {Twisting machines in which twist is imparted at the paying-out and take-up stations}	1/20	. . Driving or stopping arrangements (for open-end spinning machines <a href="#">D01H 4/12</a> , <a href="#">D01H 4/20</a> , <a href="#">D01H 4/42</a> ; safety devices <a href="#">D01H 13/14</a> )
1/02 . ring type {(arrangements with two or more spinning or twisting devices in combination <a href="#">D01H 7/90</a> )}	1/22	. . . for rollers {of drafting machines; Roller speed control} (regulating or varying draft <a href="#">D01H 5/32</a> )
1/025 . . {with a condensing device between drafting system and spinning unit}	1/24	. . . for twisting {or spinning} arrangements, e.g. spindles (braking arrangements for spindles <a href="#">D01H 7/22</a> ; interrelated flyer and bobbin drive mechanisms <a href="#">D01H 7/50</a> )
1/04 . flyer type		
1/06 . cap type		
1/08 . cup, pot or disc type, in which annular masses of yarn are formed by centrifugal action	1/241	. . . . driven by belt
1/10 . for imparting multiple twist, e.g. two-for-one twisting	1/242	. . . . driven by toothed wheels
	1/243	. . . . driven by friction discs
1/101 . . {in which multiple twist is imparted at the take-up stations}	1/244	. . . . each spindle driven by an electric motor
	1/26	. . . . with two or more speeds; with variable-speed arrangements
1/103 . . . {Two-for-one twisting}		
1/105 . . {Arrangements using hollow spindles, i.e. the yarns are running through the spindle of the unwound bobbins}	1/28	. . . for two or more machine elements possessing different characteristics but in operative association
1/106 . . . {Two-for-one twisting}	1/30	. . . . with two or more speeds; with variable-speed arrangements
1/108 . . . . {for two or more supply bobbins one on top of the other}	1/305	. . . . . {Speed control of the spindles in response to the displacements of the ring rail}
1/11 . Spinning by false-twisting {(twisting by false-twisting <a href="#">D01H 7/92</a> ; <a href="#">D02G 3/28</a> ; increasing the strength of a roving or sliver by false-twisting <a href="#">D01H 7/92</a> , during drafting <a href="#">D01H 5/28</a> )}	1/32	. . . for complete machines
	1/34	. . . . with two or more speeds; with variable-speed arrangements {, e.g. variation of machine speed according to growing bobbin diameter (responsive to reduction in material tension <a href="#">D01H 13/16</a> )}
1/115 . . using pneumatic means		
1/14 . Details (drafting arrangements <a href="#">D01H 5/00</a> ; twisting arrangements <a href="#">D01H 7/00</a> )		

- 1/36 . . Package-shaping arrangements, e.g. building motions {, e.g. control for the traversing stroke of ring rails; Stopping ring rails in a predetermined position}
- 1/365 . . . {for flyer type}
- 1/38 . . Arrangements for winding reserve lengths of yarn on take-up packages {or spindles}, e.g. transfer tails
- 1/385 . . . {Removing waste reserve lengths from spindles}
- 1/40 . . Arrangements for connecting continuously-delivered material to bobbins or the like
- 1/42 . . Guards or protectors for yarns or threads, e.g. separator plates, anti-ballooning devices (anti-ballooning devices on spindles [D01H 7/18](#))
- 1/422 . . . {Separator plates}
- 1/425 . . . {Anti-ballooning rings}
- 1/427 . . . {Anti-ballooning cylinders, e.g. for two-for-one twist machine (with combined cleaning effect [D01H 11/00](#))}
- 3/00 Spinning or twisting machines in which the product is wound-up intermittently, e.g. mules**
- 3/02 . Details (drafting arrangements [D01H 5/00](#); twisting arrangements [D01H 7/00](#))
- 3/04 . . Carriages; Mechanisms effecting carriage movements
- 3/06 . . . Carriages; Carriage rails; Squaring motions
- 3/08 . . . Drawing-out or taking-in motions
- 3/10 . . . Moving-creel arrangements, e.g. for twiners
- 3/12 . . Package-shaping motions; Faller arrangements
- 3/14 . . Roller-driving arrangements (drafting arrangements of general application in spinning machines [D01H 5/18](#))
- 3/16 . . Spindle-driving arrangements (spindles, spindle bearings, spindle supports [D01H 7/04](#))
- 3/18 . . . Tin rollers; Driving arrangements intimately associated with tin rollers
- 3/20 . . . Spindle-driving arrangements during drawing-out or backing-off
- 3/22 . . . Spindle-driving arrangements during taking-in
- 3/24 . . . . Quadrant motions; Nosing motions
- 3/26 . . Driving or stopping arrangements not otherwise provided for; Locking motions (safety devices [D01H 13/14](#)) {; Control of machines}
- 4/00 Open-end spinning machines or arrangements for imparting twist to independently moving fibres separated from slivers; Piecing arrangements therefor; Covering endless core threads with fibres by open-end spinning techniques {(arrangements with two or more spinning or twisting devices of different types in combination [D01H 7/90](#))}**
- NOTE**
- In this group, the expression "open-end spinning" covers such expressions as "break spinning", "ringless spinning", "rotor spinning" and "friction spinning", but does not cover the expression "spinning by false-twisting"
- 4/02 . imparting twist by a fluid, e.g. air vortex
- 4/04 . imparting twist by contact of fibres with a running surface
- 4/06 . . co-operating with suction means ([D01H 4/08](#), [D01H 4/16](#) take precedence)
- 4/08 . . Rotor spinning, i.e. the running surface being provided by a rotor
- 4/10 . . . Rotors
- 4/12 . . . Rotor bearings; Arrangements for driving or stopping (control therefor [D01H 4/42](#))
- 4/14 . . . . Rotor driven by an electric motor
- 4/16 . . Friction spinning, i.e. the running surface being provided by a pair of closely spaced friction drums, e.g. at least one suction drum {(false twisting with friction drums [D01H 1/11](#))}
- 4/18 . . . Friction drums, e.g. arrangement of suction holes
- 4/20 . . . Drum bearings; Arrangements for driving or stopping (control therefor [D01H 4/42](#))
- 4/22 . . Cleaning of running surfaces
- 4/24 . . . in rotor spinning
- 4/26 . . . in friction spinning
- 4/28 . using electrostatic fields
- 4/30 . Arrangements for separating slivers into fibres; Orienting or straightening fibres {, e.g. using guide-rolls}
- 4/32 . . using opening rollers {(stopping of rovings or slivers [D01H 13/18](#))}
- 4/34 . . using air-jet streams
- 4/36 . . with means for taking away impurities
- 4/38 . Channels for feeding fibres to the yarn forming region
- 4/40 . Removing running yarn from the yarn forming region, e.g. using tubes
- 4/42 . Control of driving or stopping
- 4/44 . . in rotor spinning
- 4/46 . . in friction spinning
- 4/48 . Piecing arrangements; Control therefor {(stopping roving [D01H 13/18](#))}
- 4/50 . . for rotor spinning
- 4/52 . . for friction spinning
- 5/00 Drafting machines or arrangements {Threading of roving into drafting machine} (arrangements in which draft is dependent on linear movement of take-up spindles, e.g. in mules, [D01H 3/00](#); devices for combing or orienting fibres for open-end spinning machines [D01H 4/30](#) {; increasing the strength of a roving or sliver by false-twisting [D01H 7/92](#), during drafting [D01H 5/28](#), after drafting and before spinning according to groups [D01H 1/02](#) - [D01H 1/08](#), [D01H 7/90](#); depositing materials in cans after drafting [B65H 54/76 + T](#))}**
- 5/005 . {Arrangements for feeding or conveying the slivers to the drafting machine}
- 5/02 . Gill boxes or other drafting machines employing fallers or like pinned bars (lubricating fibres in gill boxes [D01G 29/00](#))
- 5/04 . . with pinned bars actuated by screw members
- 5/06 . . . Intersecting gill boxes
- 5/08 . . with bars connected by links, chains, or the like
- 5/10 . . with pinned bars unconnected with each other but actuated through pressure of one against another
- 5/12 . . Details
- 5/14 . . . Pinned bars
- 5/16 . . . Framework; Casings; Coverings
- 5/18 . Drafting machines or arrangements without fallers or like pinned bars

- 5/20 . . . in which fibres are controlled by contact with stationary or reciprocating surfaces
- 5/22 . . . in which fibres are controlled by rollers only
- 5/24 . . . with porcupines or like pinned rotary members
- 5/26 . . . in which fibres are controlled by one or more endless aprons
- 5/28 . . . in which fibres are controlled by inserting twist during drafting ([spinning by false-twisting D01H 1/11](#); [mules D01H 3/00](#) ; [twisting by false-twisting D01H 7/92](#)); [constructions of false-twist devices D02G 1/04](#))
- 5/30 . . . incorporating arrangements for severing continuous filaments, e.g. in direct spinning ([converting tows to slivers or yarns D01G 1/06](#))
- 5/32 . . . Regulating or varying draft
- 5/34 . . . by manual adjustments
- 5/36 . . . according to a pre-arranged pattern, e.g. to produce slubs
- 5/38 . . . in response to irregularities in material { ; [Measuring irregularities](#) }
- 5/385 . . . . { [employing hydraulic or pneumatic time-delay devices](#) }
- 5/40 . . . . [employing mechanical time-delay devices](#)
- 5/42 . . . . [employing electrical time-delay devices](#)
- 5/44 . . . Adjusting drafting elements, e.g. altering ratch
- 5/46 . . . Loading arrangements
- 5/48 . . . using weights
- 5/50 . . . using springs
- 5/505 . . . . { [for top roller arms](#) }
- 5/52 . . . using fluid pressure
- 5/525 . . . . { [for top roller arms](#) }
- 5/54 . . . using magnetic arrangements
- 5/56 . . . Supports for drafting elements ([saddles or top roller arms forming essential components of weighting arrangements D01H 5/48](#))
- 5/565 . . . . { [Top roller arms](#) }
- 5/58 . . . Arrangements for traversing drafting elements ([traversing arrangements for roving guides D01H 13/06](#))
- 5/60 . . . Arrangements maintaining drafting elements free of fibre accumulations
- 5/62 . . . Non-rotary cleaning pads or plates; Scrapers
- 5/625 . . . . { [in cooperation with suction or blowing means](#) }
- 5/64 . . . Rollers or aprons with cleaning surfaces
- 5/645 . . . . { [in cooperation with suction or blowing means](#) }
- 5/66 . . . Suction devices { [exclusively; \(D01H 5/625 and D01H 5/645 take precedence; in cooperation with thread breakage detecting means D01H 13/1691\)](#) }
- 5/68 . . . . Suction end-catchers
- 5/70 . . . Constructional features of drafting elements
- 5/72 . . . Fibre-condensing guides ([guides for slivers, rovings, or yarns applicable solely for spinning, twisting, curling, or crimping purposes D01H 13/04](#) ; [combined with false twisting before drafting or before spinning according to groups D01H 1/02 - D01H 1/08 : D01H 7/92](#) )
- 5/74 . . . Rollers { [or roller bearings](#) }
- 5/76 . . . . Loose-boss assemblies
- 5/78 . . . . with flutes or other integral surface characteristics
- 5/80 . . . . with covers; Cots or covers
- 5/82 . . . . Arrangements for coupling roller sections
- 5/84 . . . . Porcupines
- 5/86 . . . Aprons; Apron supports; Apron tensioning arrangements
- 5/88 . . . . Cradles; Tensors
- 7/00 Spinning or twisting arrangements (for open-end spinning [D01H 4/00](#))**
- 7/02 . . . for imparting permanent twist
- 7/04 . . . Spindles ([bearings for hollow spindles D01H 7/88](#)); [spindle bearings, supports therefor, in general F16C](#))
- 7/041 . . . . { [Spindles with sliding contact bearings \(D01H 7/045 takes precedence\)](#) }
- 7/042 . . . . { [Spindles with rolling contact bearings \(D01H 7/045 takes precedence\)](#) }
- 7/044 . . . . { [Spindles with fluid bearings](#) }
- 7/045 . . . . { [Spindles provided with flexible mounting elements for damping vibration or noise, or for avoiding or reducing out-of-balance forces due to rotation \(in general F16F 15/00\)](#) }
- 7/047 . . . . . { [with springs](#) }
- 7/048 . . . . . { [with means using plastic deformation of members](#) }
- 7/06 . . . Stationary spindles with package-holding sleeves
- 7/08 . . . Mounting arrangements
- 7/10 . . . . Spindle supports; Rails; Rail supports, e.g. poker guides
- 7/12 . . . . Bolsters; Bearings
- 7/14 . . . . Holding-down arrangements
- 7/16 . . . Arrangements for coupling bobbins or like to spindles
- 7/18 . . . Arrangements on spindles for suppressing yarn balloons ([thread guards or protectors D01H 1/42](#))
- 7/20 . . . Lubricating arrangements
- 7/22 . . . Braking arrangements
- 7/2208 . . . . { [using mechanical means](#) }
- 7/2216 . . . . . { [with one or two manually actuated shoe-brakes acting on a part of the whorl](#) }
- 7/2225 . . . . . { [the braking means surrounding nearly the whole periphery of the whorl](#) }
- 7/2233 . . . . . { [by suppressing the driving means, e.g. by declutching](#) }
- 7/2241 . . . . . . { [the belt being moved off the driven whorl](#) }
- 7/225 . . . . . . . { [and the spindle being braked simultaneously](#) }
- 7/2258 . . . . . . . { [the pivoted spindle being pulled off the belt](#) }
- 7/2266 . . . . . . . . { [and braked simultaneously](#) }
- 7/2275 . . . . . { [using hydraulically or pneumatically operated brakes](#) }
- 7/2283 . . . . . { [using electromagnetically operated brakes](#) }
- 7/2291 . . . . . { [characterised by the control of braking means, e.g. operated by a yarn break-detector or tension device](#) }
- 7/24 . . . Flyer or like arrangements ([multiple-twist arrangements D01H 7/86](#))
- 7/26 . . . Flyer constructions
- 7/28 . . . . arranged to guide material over exterior of legs

7/30	. . . . with guide channels formed in legs, e.g. slubbing flyers	7/88	. . Hollow-spindle arrangements ( <a href="#">D01H 7/86</a> takes precedence)
7/32	. . . . . with pressing devices	7/90	. . Arrangements with two or more {spinning or} twisting devices {of different types} in combination ({ <a href="#">D01H 1/006</a> }, <a href="#">D01H 7/86</a> , <a href="#">D01H 7/88</a> take precedence)
7/34	. . . . with haul pulleys or like arrangements		
7/36	. . . . with traversing devices		
7/38	. . . . Ring flyers		
7/40	. . . Flyer supports, e.g. rails	7/92	. for imparting transient twist {, i.e. false twist ( <a href="#">D01H 1/11</a> takes precedence)}
7/42	. . . Arrangements coupling flyers to spindles	7/923	. . {by means of rotating devices}
7/44	. . . Drag arrangements for bobbins or flyers	7/926	. . {by means of traversing devices}
7/46	. . . Devices attached to, or integral with, flyers for temporarily increasing twist in material passing to them		
7/48	. . . Eyes or like guiding arrangements ( <a href="#">D01H 7/46</a> takes precedence)		
7/50	. . . Interrelated flyer and bobbin drive mechanisms, e.g. winding-on motions for cotton-roving frames ({variation of machine speed according to growing bobbin diameter <a href="#">D01H 1/34</a> }; package-building mechanisms <a href="#">D01H 1/36</a> )	<b>9/00</b>	<b>Arrangements for replacing or removing bobbins, cores, receptacles, or completed packages at paying-out or take-up stations (arrangements of general interest in the winding of filamentary material {<a href="#">B65H 67/00</a> } ) {; Combination of spinning-winding machine}</b>
7/52	. . Ring-and-traveller arrangements	9/001	. {Bobbin-taking arrangements}
7/54	. . . with fixed rings	9/003	. . {Graspers operating under the action of a fluid}
7/56	. . . with freely-rotatable rings; with braked or dragged rings {; Lubricating arrangements therefor}	9/005	. {for removing empty packages or cans and replacing by completed (full) packages or cans at paying-out stations; also combined with piecing of the roving}
7/565	. . . . {with fluid bearings}		
7/58	. . . with driven rings {; Bearings or braking arrangements therefor}	9/006	. . {for two-for-one twist type machines}
7/585	. . . . {by fluid driving means}	9/008	. . {for cans}
7/60	. . . Rings or travellers; Manufacture thereof not otherwise provided for ( <a href="#">hand tools for applying travellers to rings <a href="#">D01H 17/02</a></a> ) {; Cleaning means for rings}	9/02	. for removing completed take-up packages and replacing by bobbins, cores, or receptacles at take-up stations; Transferring material between adjacent full and empty take-up elements
7/602	. . . . {Rings}	9/04	. . Doffing arrangements integral with spinning or twisting machines
7/604	. . . . {Travellers}	9/043	. . . {for cap type machines}
7/606	. . . . . {Driving means for travellers}	9/046	. . . {for flyer type machines}
7/608	. . . . . {Cleaning means for travellers}	9/06	. . . Removing yarn from centrifugal cups on to yarn carriers
7/62	. . . Arrangements providing lubricant for travellers	9/08	. . Doffing arrangements independent of spinning or twisting machines
7/64	. . . Ring supports, e.g. ring rails ( <a href="#">poker guides or other rail supports <a href="#">D01H 7/10</a></a> )	9/10	. . . Doffing carriages {; Loading carriages with cores}
7/66	. . Cap arrangements	9/12	. . . Manual cop-tube applying apparatus; Stands for cop-tube applying apparatus
7/68	. . . Cap constructions	9/14	. . for preparing machines for doffing of yarns, {e.g. raising cops prior to removal} ( <a href="#">stop motions responsive to delivery of a measured length of material <a href="#">D01H 13/24</a></a> )
7/70	. . . Arrangements for supporting caps on spindles	9/16	. . Yarn-severing arrangements {, e.g. for cutting transfer tails; Separating of roving in flyer}
7/72	. . . Bobbin-supporting arrangements, e.g. bobbin rails ( <a href="#">poker guides or other rail supports <a href="#">D01H 7/10</a></a> )	9/18	. for supplying bobbins, cores, receptacles, or completed packages to, or transporting from, paying-out or take-up stations ( <a href="#">D01H 9/10</a> takes precedence) {; Arrangements to prevent unwinding of roving from roving bobbins ( <a href="#">transporting full yarn bobbins to subsequent machines <a href="#">B65H 67/06+T</a></a> )}
7/74	. . Cup or like arrangements		
7/76	. . . Rotary discs		
7/78	. . . Constructions of cups, e.g. spinning boxes		
7/80	. . . . adapted to collect wet yarns		
7/82	. . . Casings or guards for rotary cups or the like		
7/84	. . . Spindles or yarn carriers for co-operation with rotary cups ( <a href="#">removing yarn from centrifugal cups on to yarn carriers <a href="#">D01H 9/06</a></a> )		
7/86	. . Multiple-twist arrangements, e.g. two-for-one twisting devices {Threading of yarn; Devices in hollow spindles for imparting false twist}	9/182	. . {Overhead conveying devices}
7/862	. . . {Arrangements for holding the bobbin in a fixed position}	9/185	. . {Transporting cans}
7/864	. . . {Coupling devices between the fixed and the rotative parts}	9/187	. . {on individual supports, e.g. pallets}
7/866	. . . {Means to facilitate the unwinding of yarn}		
7/868	. . . {Yarn guiding means, e.g. guiding tubes}		

<b>11/00</b>	<b>Arrangements for confining or removing dust, fly, or the like</b> (cleaning of running surfaces in open-end spinning machines <a href="#">D01H 4/22</a> ; separation in general <a href="#">B01D</a> ; cleaning in general <a href="#">B08B</a> ; air-conditioning <a href="#">F24F</a> , e.g. by filtering <a href="#">F24F 3/16</a> )	13/1683	. . . . {Pneumatic sensing means}
		13/1691	. . . {Thread breakage detector means associated with pneumatic cleaning devices, e.g. suction of broken end of yarn}
11/001	. {Hand tools used for cleaning the machines}	13/18	. . . stopping supply only
11/003	. . {with a rotary pin}	13/181	. . . . {by stopping supply packages}
11/005	. {with blowing and/or suction devices (in general <a href="#">A47L 7/00</a> ; in cooperation with thread breakage detecting means <a href="#">D01H 13/1691</a> )}	13/182	. . . . {by raising or lifting of one of the drafting cylinders, e.g. by removing of the loading means}
11/006	. . {travelling along the machines}	13/183	. . . . {the yarn moving out of its normal path, e.g. by lateral diverting}
11/008	. {with static field means}	13/185	. . . . {a plate moving in the nip of drafting or guiding cylinders}
<b>13/00</b>	<b>Other common constructional features, details or accessories</b> (for open-end spinning <a href="#">D01H 4/00</a> )	13/186	. . . . {guiding or drafting cylinders moving by gravity when a yarn breakage occurs}
13/005	. {Service carriages travelling along the machines (characteristics relating to the apparatus supported by the carriage, <i>see</i> relevant groups, e.g. <a href="#">D01H 9/005</a> , <a href="#">D01H 9/10</a> , <a href="#">D01H 13/145</a> , <a href="#">D01H 15/00</a> )}	13/187	. . . . {using means stopping the driving of the drafting, guiding cylinders, e.g. friction clutches}
13/02	. Roller arrangements not otherwise provided for	13/188	. . . . {by cutting or clamping yarns or rovings}
13/04	. Guides for slivers, rovings, or yarns; Smoothing dies (fibre-condensing guides <a href="#">D01H 5/72</a> ; means to facilitate the unwinding of yarn in multiple-twist arrangements <a href="#">D01H 7/866</a> )	13/20	. . responsive to excessive tension or irregular operation of apparatus
13/045	. . {Guide tube}	13/22	. . responsive to presence of irregularities in running material
13/06	. . Traversing arrangements	13/24	. . responsive to delivery of a measured length of material, completion of winding of a package or filling of a receptacle
13/08	. Twist arresters	13/26	. Arrangements facilitating the inspection or testing of yarns or the like in connection with spinning or twisting
13/10	. Tension devices	13/28	. Heating or cooling arrangements {for yarns (removal of heat from machines <a href="#">D01H 1/16</a> )}
13/102	. . {Regulating tension by regulating delivery of yarn from supply package ( <a href="#">D01H 13/108</a> takes precedence)}	13/30	. Moistening, sizing, oiling, waxing, colouring, or drying yarns or the like as incidental measures during spinning or twisting
13/104	. . {Regulating tension by devices acting on running yarn and not associated with supply or take-up devices}	13/302	. . {Moistening, e.g. for wet spinning}
13/106	. . . {for double-twist spindle}	13/304	. . {Conditioning during spinning or twisting (for carding or combing <a href="#">D01G 99/005</a> )}
13/108	. . {Regulating tension by regulating speed of driving mechanisms of unwinding, paying-out, forwarding, winding or depositing devices, e.g. automatically in response to variations in tension}	13/306	. . {by applying fluids, e.g. steam or oiling liquids}
13/12	. Arrangements preventing snarls or inadvertent doubling of yarns (suction end-catchers <a href="#">D01H 5/68</a> )	13/308	. . {by applying solids, e.g. wax}
13/14	. Warning or safety devices, e.g. automatic fault detectors, stop motions; {Monitoring the entanglement of slivers in drafting arrangements}; (safety devices of general application <a href="#">F16P</a> ; indicating devices of general application <a href="#">G08B</a> )	13/32	. Counting, measuring, recording or registering devices (in general, <i>see</i> the appropriate subclass of <a href="#">Section G</a> , e.g. { <a href="#">G01B 21/12</a> , <a href="#">G01N 33/36</a> })
13/145	. . {set on carriages travelling along the machines; Warning or safety devices pulled along the working unit by a band or the like}	<b>15/00</b>	<b>Piecing arrangements</b> (for open-end spinning machines <a href="#">D01H 4/48</a> ; in machines for producing textile fabrics, <i>see</i> the appropriate subclasses) {; <b>Automatic end-finding, e.g. by suction and reverse package rotation; Devices for temporarily storing yarn during piecing</b> (piecing of rovings in combination with replacing of completed packages or cans <a href="#">D01H 9/005</a> )}
13/16	. . responsive to reduction in material tension, failure of supply, or breakage, of material	15/002	. {for false-twisting spinning machines}
13/1608	. . . {where the paying-out and take-up stations are stopped at one and the same time}	15/004	. {for centrifugal spinning machines}
13/1616	. . . {characterised by the detector}	15/007	. for two-for-one twisting machines
13/1625	. . . . {Electro-mechanical actuators}	15/013	. Carriages travelling along the machines
13/1633	. . . . {Electronic actuators}	<b>17/00</b>	<b>Hand tools</b> (cop-tube applying apparatus <a href="#">D01H 9/12</a> )
13/1641	. . . . . {Capacitor sensing means}	17/02	. Arrangements for storing ring travellers; Devices for applying travellers to rings
13/165	. . . . . {Photo-electric sensing means}		
13/1658	. . . . . {Associated actuators with mutual actuation, e.g. for two or more running yarns}		
13/1666	. . . . . {Lighting or luminous devices making easier the setting of the breakage of yarns}	<b>2700/00</b>	<b>Spinning or twisting machines; Drafting devices</b>
13/1675	. . . . . {Pencil of rays on side of machines}	2700/01	. Preparatory spinning machines
		2700/20	. Spinning mules; Transmissions

## D01H

- 2700/202 . . Carriages or their movement; Lubrication
- 2700/205 . . Spindles or spindle control in spinning mules
- 2700/207 . . Yarn delivery rollers; Drawing systems for spinning mules; Silver rollers
- 2700/21 . Piecing or cleaning in spinning mules
- 2700/22 . Winding devices for spinning mules
- 2700/24 . Spinning or twisting machines of different kinds
- 2700/242 . . Spinning or twisting devices wherein twist is created during winding
- 2700/245 . Conception or fabrication of drafting cylinders
- 2700/247 . Guiding means for veil or sliver on drafting systems