

CPC COOPERATIVE PATENT CLASSIFICATION

D TEXTILES; PAPER

TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

D01 NATURAL OR MAN-MADE THREADS OR FIBRES; SPINNING

(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](#))

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.

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

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|-------|--|-------|--|
| 1/00 | Spinning or twisting machines in which the product is wound-up continuously (open-end spinning machines D01H 4/00 {; doubling of yarns B65H 54/00+T ; doubled, plied or cabled threads D02G 3/28 , e.g. using hollow spindles D02G 3/283 ; spin-twisting D02G 3/281 ; threads with alternately "S" and "Z" direction of twist, e.g. self-twist process, D02G 3/286 ; wrapping strands of filaments or staple fibres by a binder yarn D02G 3/38) | 1/14 | . Details (drafting arrangements D01H 5/00 ; twisting arrangements D01H 7/00) |
| 1/003 | . {Twisting machines in which twist is imparted from the supply packages, e.g. uptwist} | 1/16 | . . Framework; Casings; Coverings {Removal of heat; Means for generating overpressure of air against infiltration of dust; Ducts for electric cables} |
| 1/006 | . {Twisting machines in which twist is imparted at the paying-out and take-up stations} | 1/162 | . . . {for ring type} |
| 1/02 | . ring type {(arrangements with two or more spinning or twisting devices in combination D01H 7/90)} | 1/164 | . . . {for flyer type} |
| 1/025 | . . {with a condensing device between drafting system and spinning unit} | 1/166 | . . . {for two-for-one type} |
| 1/04 | . flyer type | 1/168 | . . . {Arrangements for the sound-dampening of the machines (in general G10K 11/00)} |
| 1/06 | . cap type | 1/18 | . . Supports for supply packages |
| 1/08 | . cup, pot or disc type, in which annular masses of yarn are formed by centrifugal action | 1/183 | . . . {Overhead suspension devices} |
| 1/10 | . for imparting multiple twist, e.g. two-for-one twisting | 1/186 | . . . {for supplying from cans} |
| 1/101 | . . {in which multiple twist is imparted at the take-up stations} | 1/20 | . . Driving or stopping arrangements (for open-end spinning machines D01H 4/12 , D01H 4/20 , D01H 4/42 ; safety devices D01H 13/14) |
| 1/103 | . . . {Two-for-one twisting} | 1/22 | . . . for rollers {of drafting machines; Roller speed control} (regulating or varying draft D01H 5/32) |
| 1/105 | . . {Arrangements using hollow spindles, i.e. the yarns are running through the spindle of the unwound bobbins} | 1/24 | . . . for twisting {or spinning} arrangements, e.g. spindles (braking arrangements for spindles D01H 7/22 ; interrelated flyer and bobbin drive mechanisms D01H 7/50) |
| 1/106 | . . . {Two-for-one twisting} | 1/241 | driven by belt |
| 1/108 | {for two or more supply bobbins one on top of the other} | 1/242 | driven by toothed wheels |
| 1/11 | . Spinning by false-twisting {(twisting by false-twisting D01H 7/92 ; D02G 3/28 ; increasing the strength of a roving or sliver by false-twisting D01H 7/92 , during drafting D01H 5/28)} | 1/243 | driven by friction discs |
| 1/115 | . . using pneumatic means | 1/244 | each spindle driven by an electric motor |
| | | 1/26 | with two or more speeds; with variable-speed arrangements |
| | | 1/28 | . . . for two or more machine elements possessing different characteristics but in operative association |
| | | 1/30 | with two or more speeds; with variable-speed arrangements |
| | | 1/305 | {Speed control of the spindles in response to the displacements of the ring rail} |
| | | 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 D01H 13/16)}	4/02	. imparting twist by a fluid, e.g. air vortex
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}	4/04	. imparting twist by contact of fibres with a running surface
1/365	. . . {for flyer type}	4/06	. . co-operating with suction means (D01H 4/08 , D01H 4/16 take precedence)
1/38	. . Arrangements for winding reserve lengths of yarn on take-up packages {or spindles}, e.g. transfer tails	4/08	. . Rotor spinning, i.e. the running surface being provided by a rotor
1/385	. . . {Removing waste reserve lengths from spindles}	4/10	. . . Rotors
1/40	. . Arrangements for connecting continuously-delivered material to bobbins or the like	4/12	. . . Rotor bearings; Arrangements for driving or stopping (control therefor D01H 4/42)
1/42	. . Guards or protectors for yarns or threads, e.g. separator plates, anti-ballooning devices (anti-ballooning devices on spindles D01H 7/18)	4/14	. . . . Rotor driven by an electric motor
1/422	. . . {Separator plates}	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)}
1/425	. . . {Anti-ballooning rings}	4/18	. . . Friction drums, e.g. arrangement of suction holes
1/427	. . . {Anti-ballooning cylinders, e.g. for two-for-one twist machine (with combined cleaning effect D01H 11/00)}	4/20	. . . Drum bearings; Arrangements for driving or stopping (control therefor D01H 4/42)
3/00	Spinning or twisting machines in which the product is wound-up intermittently, e.g. mules	4/22	. . Cleaning of running surfaces
3/02	. Details (drafting arrangements D01H 5/00 ; twisting arrangements D01H 7/00)	4/24	. . . in rotor spinning
3/04	. . Carriages; Mechanisms effecting carriage movements	4/26	. . . in friction spinning
3/06	. . . Carriages; Carriage rails; Squaring motions	4/28	. using electrostatic fields
3/08	. . . Drawing-out or taking-in motions	4/30	. Arrangements for separating slivers into fibres; Orienting or straightening fibres {, e.g. using guide-rolls}
3/10	. . . Moving-creel arrangements, e.g. for twiners	4/32	. . using opening rollers {(stopping of rovings or slivers D01H 13/18)}
3/12	. . Package-shaping motions; Faller arrangements	4/34	. . using air-jet streams
3/14	. . Roller-driving arrangements (drafting arrangements of general application in spinning machines D01H 5/18)	4/36	. . with means for taking away impurities
3/16	. . Spindle-driving arrangements (spindles, spindle bearings, spindle supports D01H 7/04)	4/38	. Channels for feeding fibres to the yarn forming region
3/18	. . . Tin rollers; Driving arrangements intimately associated with tin rollers	4/40	. Removing running yarn from the yarn forming region, e.g. using tubes
3/20	. . . Spindle-driving arrangements during drawing-out or backing-off	4/42	. Control of driving or stopping
3/22	. . . Spindle-driving arrangements during taking-in	4/44	. . in rotor spinning
3/24	. . . . Quadrant motions; Nosing motions	4/46	. . in friction spinning
3/26	. . Driving or stopping arrangements not otherwise provided for; Locking motions (safety devices D01H 13/14) {; Control of machines}	4/48	. Piecing arrangements; Control therefor {(stopping roving D01H 13/18)}
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)}	4/50	. . for rotor spinning
	NOTE	4/52	. . for friction spinning
	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"	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
- 7/32 with pressing devices
- 7/34 with haul pulleys or like arrangements
- 7/36 with traversing devices
- 7/38 Ring flyers
- 7/40 . . . Flyer supports, e.g. rails
- 7/42 . . . Arrangements coupling flyers to spindles
- 7/44 . . . Drag arrangements for bobbins or flyers
- 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 ([D01H 7/46 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 D01H 1/34](#)); package-building mechanisms [D01H 1/36](#))
- 7/52 . . Ring-and-traveller arrangements
- 7/54 . . . with fixed rings
- 7/56 . . . with freely-rotatable rings; with braked or dragged rings ; [Lubricating arrangements therefor](#)
- 7/565 {with fluid bearings}
- 7/58 . . . with driven rings ; [Bearings or braking arrangements therefor](#)
- 7/585 {by fluid driving means}
- 7/60 . . . Rings or travellers; Manufacture thereof not otherwise provided for ([hand tools for applying travellers to rings D01H 17/02](#)) ; [Cleaning means for rings](#)
- 7/602 {Rings}
- 7/604 {Travellers}
- 7/606 {Driving means for travellers}
- 7/608 {Cleaning means for travellers}
- 7/62 . . . Arrangements providing lubricant for travellers
- 7/64 . . . Ring supports, e.g. ring rails ([poker guides or other rail supports D01H 7/10](#))
- 7/66 . . Cap arrangements
- 7/68 . . . Cap constructions
- 7/70 . . . Arrangements for supporting caps on spindles
- 7/72 . . . Bobbin-supporting arrangements, e.g. bobbin rails ([poker guides or other rail supports D01H 7/10](#))
- 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 ([removing yarn from centrifugal cups on to yarn carriers D01H 9/06](#))
- 7/86 . . Multiple-twist arrangements, e.g. two-for-one twisting devices {[Threading of yarn; Devices in hollow spindles for imparting false twist](#)}
- 7/862 . . . {Arrangements for holding the bobbin in a fixed position}

- 7/864 . . . {Coupling devices between the fixed and the rotative parts}
- 7/866 . . . {Means to facilitate the unwinding of yarn}
- 7/868 . . . {Yarn guiding means, e.g. guiding tubes}
- 7/88 . . Hollow-spindle arrangements ([D01H 7/86 takes precedence](#))
- 7/90 . . Arrangements with two or more {spinning or} twisting devices {of different types} in combination ([D01H 1/006](#)), [D01H 7/86](#), [D01H 7/88 take precedence](#))
- 7/92 . . for imparting transient twist , i.e. false twist ([D01H 1/11 takes precedence](#))
- 7/923 . . {by means of rotating devices}
- 7/926 . . {by means of traversing devices}

Common features or details of, or accessories for, spinning or twisting machines of various kinds or types ([drafting arrangements D01H 5/00](#); [twisting arrangements D01H 7/00](#))

- 9/00 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 {B65H 67/00}](#)) ; **Combination of spinning-winding machine**
- 9/001 . {Bobbin-taking arrangements}
- 9/003 . . {Graspers operating under the action of a fluid}
- 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}
- 9/006 . . {for two-for-one twist type machines}
- 9/008 . . {for cans}
- 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
- 9/04 . . Doffing arrangements integral with spinning or twisting machines
- 9/043 . . . {for cap type machines}
- 9/046 . . . {for flyer type machines}
- 9/06 . . . Removing yarn from centrifugal cups on to yarn carriers
- 9/08 . . Doffing arrangements independent of spinning or twisting machines
- 9/10 . . . Doffing carriages ; [Loading carriages with cores](#)
- 9/12 . . . Manual cop-tube applying apparatus; Stands for cop-tube applying apparatus
- 9/14 . . for preparing machines for doffing of yarns, {e.g. [raising cops prior to removal](#)} ([stop motions responsive to delivery of a measured length of material D01H 13/24](#))
- 9/16 . . Yarn-severing arrangements , e.g. for cutting transfer tails; [Separating of roving in flyer](#)
- 9/18 . . for supplying bobbins, cores, receptacles, or completed packages to, or transporting from, paying-out or take-up stations ([D01H 9/10 takes precedence](#)) ; [Arrangements to prevent unwinding of roving from roving bobbins](#) ([transporting full yarn bobbins to subsequent machines B65H 67/06+T](#))
- 9/182 . . {Overhead conveying devices}
- 9/185 . . {Transporting cans}

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

D01H

- 2700/20 . Spinning mules; Transmissions
- 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