

**CPC****COOPERATIVE PATENT CLASSIFICATION****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](#) )

**Guidance heading:** Kinds or types of spinning or twisting machines; Drafting machines or arrangements; Twisting arrangements

**D01H 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](#) } )

- [D01H 1/003](#) . { Twisting machines in which twist is imparted from the supply packages, e.g. uptwist }
- [D01H 1/006](#) . { Twisting machines in which twist is imparted at the paying-out and take-up stations }
- [D01H 1/02](#) . ring type { ( arrangements with two or more spinning or twisting devices in combination [D01H/90](#) ) }
- [D01H 1/025](#) .. { with a condensing device between drafting system and spinning unit }
- [D01H 1/04](#) . flyer type
- [D01H 1/06](#) . cap type
- [D01H 1/08](#) . cup, pot or disc type, in which annular masses of yarn are formed by centrifugal action
- [D01H 1/10](#) . for imparting multiple twist, e.g. two-for-one twisting
- [D01H 1/101](#) .. { in which multiple twist is imparted at the take-up stations }
- [D01H 1/103](#) ... { Two-for-one twisting }
- [D01H 1/105](#) .. { Arrangements using hollow spindles, i.e. the yarns are running through the spindle of the unwound bobbins }
- [D01H 1/106](#) ... { Two-for-one twisting }
- [D01H 1/108](#) .... { for two or more supply bobbins one on top of the other }
- [D01H 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](#) ) }
- [D01H 1/115](#) .. using pneumatic means
- [D01H 1/14](#) . Details ( drafting arrangements [D01H 5/00](#); twisting arrangements [D01H 7/00](#) )
- [D01H 1/16](#) .. Framework; Casings; Coverings { Removal of heat; Means for generating overpressure of air against infiltration of dust; Ducts for electric cables }
- [D01H 1/162](#) ... { for ring type }

- D01H 1/164 . . . { for flyer type }
- D01H 1/166 . . . { for two-for-one type }
- D01H 1/168 . . . { Arrangements for the sound-dampening of the machines ( in general [G10K 11/00](#) ) }
- D01H 1/18 . . Supports for supply packages
- D01H 1/183 . . . { Overhead suspension devices }
- D01H 1/186 . . . { for supplying from cans }
- D01H 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](#) )
- D01H 1/22 . . . for rollers { of drafting machines; Roller speed control } ( regulating or varying draft [D01H 5/32](#) )
- D01H 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](#) )
- D01H 1/241 . . . . driven by belt
- D01H 1/242 . . . . driven by toothed wheels
- D01H 1/243 . . . . driven by friction discs
- D01H 1/244 . . . . each spindle driven by an electric motor
- D01H 1/26 . . . . with two or more speeds; with variable-speed arrangements
- D01H 1/28 . . . for two or more machine elements possessing different characteristics but in operative association
- D01H 1/30 . . . . with two or more speeds; with variable-speed arrangements
- D01H 1/305 . . . . . { Speed control of the spindles in response to the displacements of the ring rail }
- D01H 1/32 . . . for complete machines
- D01H 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](#) ) }
- D01H 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 }
- D01H 1/365 . . . { for flyer type }
- D01H 1/38 . . Arrangements for winding reserve lengths of yarn on take-up packages { or spindles }, e.g. transfer tails
- D01H 1/385 . . . { Removing waste reserve lengths from spindles }
- D01H 1/40 . . Arrangements for connecting continuously-delivered material to bobbins or the like
- D01H 1/42 . . Guards or protectors for yarns or threads, e.g. separator plates, anti-ballooning devices ( anti-ballooning devices on spindles [D01H 7/18](#) )
- D01H 1/422 . . . { Separator plates }
- D01H 1/425 . . . { Anti-ballooning rings }
- D01H 1/427 . . . { Anti-ballooning cylinders, e.g. for two-for-one twist machine ( with combined cleaning effect [D01H 11/00](#) ) }
  
- D01H 3/00** **Spinning or twisting machines in which the product is wound-up intermittently, e.g. mules**
  
- D01H 3/02 . Details ( drafting arrangements [D01H 5/00](#); twisting arrangements [D01H 7/00](#) )

- D01H 3/04 . . . Carriages; Mechanisms effecting carriage movements
- D01H 3/06 . . . Carriages; Carriage rails; Squaring motions
- D01H 3/08 . . . Drawing-out or taking-in motions
- D01H 3/10 . . . Moving-creel arrangements, e.g. for twiners
- D01H 3/12 . . Package-shaping motions; Faller arrangements
- D01H 3/14 . . Roller-driving arrangements ( [drafting arrangements of general application in spinning machines D01H 5/18](#) )
- D01H 3/16 . . Spindle-driving arrangements ( [spindles, spindle bearings, spindle supports D01H 7/04](#) )
- D01H 3/18 . . . Tin rollers; Driving arrangements intimately associated with tin rollers
- D01H 3/20 . . . Spindle-driving arrangements during drawing-out or backing-off
- D01H 3/22 . . . Spindle-driving arrangements during taking-in
- D01H 3/24 . . . . Quadrant motions; Nosing motions
- D01H 3/26 . . Driving or stopping arrangements not otherwise provided for; Locking motions ( [safety devices D01H 13/14](#) ) { [Control of machines](#) }

**D01H 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"

- D01H 4/02 . . imparting twist by a fluid, e.g. air vortex
- D01H 4/04 . . imparting twist by contact of fibres with a running surface
- D01H 4/06 . . co-operating with suction means ( [D01H 4/08, D01H 4/16 take precedence](#) )
- D01H 4/08 . . Rotor spinning, i.e. the running surface being provided by a rotor
- D01H 4/10 . . . Rotors
- D01H 4/12 . . . Rotor bearings; Arrangements for driving or stopping ( [control therefor D01H 4/42](#) )
- D01H 4/14 . . . . Rotor driven by an electric motor
- D01H 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](#) ) }
- D01H 4/18 . . . Friction drums, e.g. arrangement of suction holes
- D01H 4/20 . . . Drum bearings; Arrangements for driving or stopping ( [control therefor 4/42](#) )
- D01H 4/22 . . Cleaning of running surfaces
- D01H 4/24 . . . in rotor spinning
- D01H 4/26 . . . in friction spinning
- D01H 4/28 . . using electrostatic fields

- D01H 4/30 . Arrangements for separating slivers into fibres; Orienting or straightening fibres, { e.g. using guide-rolls }
- D01H 4/32 . . using opening rollers { ( stopping of rovings or slivers [D01H 13/18](#) ) }
- D01H 4/34 . . using air-jet streams
- D01H 4/36 . . with means for taking away impurities
- D01H 4/38 . Channels for feeding fibres to the yarn forming region
- D01H 4/40 . Removing running yarn from the yarn forming region, e.g. using tubes
- D01H 4/42 . Control of driving or stopping
- D01H 4/44 . . in rotor spinning
- D01H 4/46 . . in friction spinning
- D01H 4/48 . Piecing arrangements; Control therefor { ( stopping roving [D01H 13/18](#) ) }
- D01H 4/50 . . for rotor spinning
- D01H 4/52 . . for friction spinning
- D01H 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](#) to [D01H 1/08](#), [D01H 7/90](#); depositing materials in cans after drafting [B65H 54/76](#) + T } )
- D01H 5/005 . { Arrangements for feeding or conveying the slivers to the drafting machine }
- D01H 5/02 . Gill boxes or other drafting machines employing fallers or like pinned bars ( lubricating fibres in gill boxes [D01G 29/00](#) )
- D01H 5/04 . . with pinned bars actuated by screw members
- D01H 5/06 . . . Intersecting gill boxes
- D01H 5/08 . . with bars connected by links, chains, or the like
- D01H 5/10 . . with pinned bars unconnected with each other but actuated through pressure of one against another
- D01H 5/12 . . Details
- D01H 5/14 . . . Pinned bars
- D01H 5/16 . . . Framework; Casings; Coverings
- D01H 5/18 . Drafting machines or arrangements without fallers or like pinned bars
- D01H 5/20 . . in which fibres are controlled by contact with stationary or reciprocating surfaces
- D01H 5/22 . . in which fibres are controlled by rollers only
- D01H 5/24 . . . with porcupines or like pinned rotary members
- D01H 5/26 . . in which fibres are controlled by one or more endless aprons
- D01H 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](#) )

- D01H 5/30 .. incorporating arrangements for severing continuous filaments, e.g. in direct spinning ( [converting tows to slivers or yarns D01G 1/06](#) )
- D01H 5/32 .. Regulating or varying draft
- D01H 5/34 ... by manual adjustments
- D01H 5/36 ... according to a pre-arranged pattern, e.g. to produce slubs
- D01H 5/38 ... in response to irregularities in material; { [Measuring irregularities](#) }
- D01H 5/385 .... { [employing hydraulic or pneumatic time-delay devices](#) }
- D01H 5/40 .... employing mechanical time-delay devices
- D01H 5/42 .... employing electrical time-delay devices
- D01H 5/44 .. Adjusting drafting elements, e.g. altering ratch
- D01H 5/46 .. Loading arrangements
- D01H 5/48 ... using weights
- D01H 5/50 ... using springs
- D01H 5/505 .... { [for top roller arms](#) }
- D01H 5/52 ... using fluid pressure
- D01H 5/525 .... { [for top roller arms](#) }
- D01H 5/54 ... using magnetic arrangements
- D01H 5/56 .. Supports for drafting elements ( [saddles or top roller arms forming essential components of weighting arrangements D01H 5/48](#) )
- D01H 5/565 ... { [Top roller arms](#) }
- D01H 5/58 .. Arrangements for traversing drafting elements ( [traversing arrangements for roving guides D01H 13/06](#) )
- D01H 5/60 .. Arrangements maintaining drafting elements free of fibre accumulations
- D01H 5/62 ... Non-rotary cleaning pads or plates; Scrapers
- D01H 5/625 .... { [in cooperation with suction or blowing means](#) }
- D01H 5/64 ... Rollers or aprons with cleaning surfaces
- D01H 5/645 .... { [in cooperation with suction or blowing means](#) }
- D01H 5/66 ... Suction devices { [exclusively; \( D01H 5/625 and D01H 5/645 take precedence; in cooperation with thread breakage detecting means D01H 13/1691 \)](#) }
- D01H 5/68 .... Suction end-catchers
- D01H 5/70 .. Constructional features of drafting elements
- D01H 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 to D01H 1/08 : D01H 7/92 }](#) )
- D01H 5/74 ... Rollers { [or roller bearings](#) }
- D01H 5/76 .... Loose-boss assemblies
- D01H 5/78 .... with flutes or other integral surface characteristics
- D01H 5/80 .... with covers; Cots or covers
- D01H 5/82 .... Arrangements for coupling roller sections
- D01H 5/84 .... Porcupines
- D01H 5/86 ... Aprons; Apron supports; Apron tensioning arrangements
- D01H 5/88 .... Cradles; Tensors
- D01H 7/00** **Spinning or twisting arrangements ( [for open-end spinning D01H 4/00](#) )**

D01H 7/02	. for imparting permanent twist
D01H 7/04	.. Spindles ( { bearings for hollow spindles <a href="#">D01H 7/88</a> }; spindle bearings, supports therefor, in general <a href="#">F16C</a> )
D01H 7/041	... { Spindles with sliding contact bearings ( <a href="#">D01H 7/045</a> takes precedence ) }
D01H 7/042	... { Spindles with rolling contact bearings ( <a href="#">D01H 7/045</a> takes precedence ) }
D01H 7/044	... { Spindles with fluid bearings }
D01H 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 <a href="#">F16F 15/00</a> ) }
D01H 7/047	.... { with springs }
D01H 7/048	.... { with means using plastic deformation of members }
D01H 7/06	... Stationary spindles with package-holding sleeves
D01H 7/08	... Mounting arrangements
D01H 7/10	.... Spindle supports; Rails; Rail supports, e.g. poker guides
D01H 7/12	.... Bolsters; Bearings
D01H 7/14	.... Holding-down arrangements
D01H 7/16	... Arrangements for coupling bobbins or like to spindles
D01H 7/18	... Arrangements on spindles for suppressing yarn balloons ( <a href="#">thread guards or protectors</a> <a href="#">D01H 1/42</a> )
D01H 7/20	... Lubricating arrangements
D01H 7/22	... Braking arrangements
D01H 7/2208	.... { using mechanical means }
D01H 7/2216	..... { with one or two manually actuated shoe-brakes acting on a part of the whorl }
D01H 7/2225	..... { the braking means surrounding nearly the whole periphery of the whorl }
D01H 7/2233	..... { by suppressing the driving means, e.g. by declutching }
D01H 7/2241	..... { the belt being moved off the driven whorl }
D01H 7/225	..... { and the spindle being braked simultaneously }
D01H 7/2258	..... { the pivoted spindle being pulled off the belt }
D01H 7/2266	..... { and braked simultaneously }
D01H 7/2275	.... { using hydraulically or pneumatically operated brakes }
D01H 7/2283	.... { using electromagnetically operated brakes }
D01H 7/2291	.... { characterised by the control of braking means, e.g. operated by a yarn break-detector or tension device }
D01H 7/24	.. Flyer or like arrangements ( <a href="#">multiple-twist arrangements</a> <a href="#">D01H 7/86</a> )
D01H 7/26	... Flyer constructions
D01H 7/28	.... arranged to guide material over exterior of legs
D01H 7/30	.... with guide channels formed in legs, e.g. slubbing flyers
D01H 7/32	..... with pressing devices
D01H 7/34	.... with haul pulleys or like arrangements
D01H 7/36	.... with traversing devices
D01H 7/38	.... Ring flyers
D01H 7/40	... Flyer supports, e.g. rails

- D01H 7/42 . . . Arrangements coupling flyers to spindles
- D01H 7/44 . . . Drag arrangements for bobbins or flyers
- D01H 7/46 . . . Devices attached to, or integral with, flyers for temporarily increasing twist in material passing to them
- D01H 7/48 . . . Eyes or like guiding arrangements ( [D01H 7/46](#) takes precedence )
- D01H 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](#) )
- D01H 7/52 . . . Ring-and-traveller arrangements
- D01H 7/54 . . . with fixed rings
- D01H 7/56 . . . with freely-rotatable rings; with braked or dragged rings; { Lubricating arrangements therefor }
- D01H 7/565 . . . . { with fluid bearings }
- D01H 7/58 . . . with driven rings; { Bearings or braking arrangements therefor }
- D01H 7/585 . . . . { by fluid driving means }
- D01H 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 }
- D01H 7/602 . . . . { Rings }
- D01H 7/604 . . . . { Travellers }
- D01H 7/606 . . . . . { Driving means for travellers }
- D01H 7/608 . . . . . { Cleaning means for travellers }
- D01H 7/62 . . . Arrangements providing lubricant for travellers
- D01H 7/64 . . . Ring supports, e.g. ring rails ( poker guides or other rail supports 7/10 )
- D01H 7/66 . . . Cap arrangements
- D01H 7/68 . . . Cap constructions
- D01H 7/70 . . . Arrangements for supporting caps on spindles
- D01H 7/72 . . . Bobbin-supporting arrangements, e.g. bobbin rails ( poker guides or other rail supports [D01H 7/10](#) )
- D01H 7/74 . . . Cup or like arrangements
- D01H 7/76 . . . Rotary discs
- D01H 7/78 . . . Constructions of cups, e.g. spinning boxes
- D01H 7/80 . . . . adapted to collect wet yarns
- D01H 7/82 . . . Casings or guards for rotary cups or the like
- D01H 7/84 . . . Spindles or yarn carriers for co-operation with rotary cups ( removing yarn from centrifugal cups on to yarn carriers [D01H 9/06](#) )
- D01H 7/86 . . . Multiple-twist arrangements, e.g. two-for-one twisting devices { Threading of yarn; Devices in hollow spindles for imparting false twist }
- D01H 7/862 . . . . { Arrangements for holding the bobbin in a fixed position }
- D01H 7/864 . . . . { Coupling devices between the fixed and the rotative parts }
- D01H 7/866 . . . . { Means to facilitate the unwinding of yarn }
- D01H 7/868 . . . . { Yarn guiding means, e.g. guiding tubes }
- D01H 7/88 . . . Hollow-spindle arrangements ( [D01H 7/86](#) takes precedence )
- D01H 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 )
- D01H 7/92 . . . for imparting transient twist { i.e. false twist ( [D01H 1/11](#) takes precedence ) }



- D01H 7/923 . . { by means of rotating devices }
- D01H 7/926 . . { by means of traversing devices }

**Guidance heading:** 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](#) )

**D01H 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 }

- D01H 9/001 . { Bobbin-taking arrangements }
- D01H 9/003 . . { Graspers operating under the action of a fluid }
- D01H 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 }
- D01H 9/006 . . { for two-for-one twist type machines }
- D01H 9/008 . . { for cans }
- D01H 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
- D01H 9/04 . . Doffing arrangements integral with spinning or twisting machines
- D01H 9/043 . . . { for cap type machines }
- D01H 9/046 . . . { for flyer type machines }
- D01H 9/06 . . . Removing yarn from centrifugal cups on to yarn carriers
- D01H 9/08 . . Doffing arrangements independent of spinning or twisting machines
- D01H 9/10 . . . Doffing carriages; { Loading carriages with cores }
- D01H 9/12 . . . Manual cop-tube applying apparatus; Stands for cop-tube applying apparatus
- D01H 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](#) )
- D01H 9/16 . . Yarn-severing arrangements, { e.g. for cutting transfer tails; Separating of roving in flyer }
- D01H 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](#) ) }
- D01H 9/182 . . { Overhead conveying devices }
- D01H 9/185 . . { Transporting cans }
- D01H 9/187 . . { on individual supports, e.g. pallets }

**D01H 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](#) )

- D01H 11/001 . { Hand tools used for cleaning the machines }



- D01H 11/003 . . { with a rotary pin }
- D01H 11/005 . { with blowing and/or suction devices ( in general [A47L 7/00](#); in cooperation with thread breakage detecting means [D01H 13/1691](#) ) }
- D01H 11/006 . . { travelling along the machines }
- D01H 11/008 . { with static field means }
- D01H 13/00** **Other common constructional features, details or accessories ( for open-end spinning [D01H 4/00](#) )**
- D01H 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](#) ) }
- D01H 13/02 . Roller arrangements not otherwise provided for
- D01H 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](#) } )
- D01H 13/045 . . { Guide tube }
- D01H 13/06 . . Traversing arrangements
- D01H 13/08 . Twist arresters
- D01H 13/10 . Tension devices
- D01H 13/102 . . { Regulating tension by regulating delivery of yarn from supply package ( [D01H 13/108](#) takes precedence ) }
- D01H 13/104 . . { Regulating tension by devices acting on running yarn and not associated with supply or take-up devices }
- D01H 13/106 . . . { for double-twist spindle }
- D01H 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 }
- D01H 13/12 . Arrangements preventing snarls or inadvertent doubling of yarns ( suction end-catchers [D01H 5/68](#) )
- D01H 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](#)
- D01H 13/145 . . { set on carriages travelling along the machines; Warning or safety devices pulled along the working unit by a band or the like }
- D01H 13/16 . . responsive to reduction in material tension, failure of supply, or breakage, of material
- D01H 13/1608 . . . { where the paying-out and take-up stations are stopped at one and the same time }
- D01H 13/1616 . . . { characterised by the detector }
- D01H 13/1625 . . . . { Electro-mechanical actuators }
- D01H 13/1633 . . . . { Electronic actuators }

D01H 13/1641	.....	{ Capacitor sensing means }
D01H 13/165	.....	{ Photo-electric sensing means }
D01H 13/1658	....	{ Associated actuators with mutual actuation, e.g. for two or more running yarns }
D01H 13/1666	....	{ Lighting or luminous devices making easier the setting of the breakage of yarns }
D01H 13/1675	.....	{ Pencil of rays on side of machines }
D01H 13/1683	....	{ Pneumatic sensing means }
D01H 13/1691	...	{ Thread breakage detector means associated with pneumatic cleaning devices, e.g. suction of broken end of yarn }
D01H 13/18	...	stopping supply only
D01H 13/181	....	{ by stopping supply packages }
D01H 13/182	....	{ by raising or lifting of one of the drafting cylinders, e.g. by removing of the loading means }
D01H 13/183	....	{ the yarn moving out of its normal path, e.g. by lateral diverting }
D01H 13/185	....	{ a plate moving in the nip of drafting or guiding cylinders }
D01H 13/186	....	{ guiding or drafting cylinders moving by gravity when a yarn breakage occurs }
D01H 13/187	....	{ using means stopping the driving of the drafting, guiding cylinders, e.g. friction clutches }
D01H 13/188	....	{ by cutting or clamping yarns or rovings }
D01H 13/20	..	responsive to excessive tension or irregular operation of apparatus
D01H 13/22	..	responsive to presence of irregularities in running material
D01H 13/24	..	responsive to delivery of a measured length of material, completion of winding of a package or filling of a receptacle
D01H 13/26	.	Arrangements facilitating the inspection or testing of yarns or the like in connection with spinning or twisting
D01H 13/28	.	Heating or cooling arrangements { for yarns ( removal of heat from machines <a href="#">D01H 1/16</a> ) }
D01H 13/30	.	Moistening, sizing, oiling, waxing, colouring, or drying yarns or the like as incidental measures during spinning or twisting
D01H 13/302	..	{ Moistening, e.g. for wet spinning }
D01H 13/304	..	{ Conditioning during spinning or twisting ( for carding or combing <a href="#">D01G 99/005</a> ) }
D01H 13/306	..	{ by applying fluids, e.g. steam or oiling liquids }
D01H 13/308	..	{ by applying solids, e.g. wax }
D01H 13/32	.	Counting, measuring, recording or registering devices ( in general, see the appropriate subclass of Section G, e.g. { <a href="#">G01B 21/12</a> , <a href="#">G01N 33/36</a> } )
D01H 15/00		<b>Piecing arrangements</b> ( for open-end spinning machines <a href="#">D01H 4/48</a> ; 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 <a href="#">D01H 9/005</a> ) }
D01H 15/002	.	{ for false-twisting spinning machines }

- D01H 15/004 . { for centrifugal spinning machines }
- D01H 15/007 . for two-for-one twisting machines
- D01H 15/013 . Carriages travelling along the machines
- D01H 17/00** **Hand tools ( cop-tube applying apparatus [D01H 9/12](#) )**
- D01H 17/02 . Arrangements for storing ring travellers; Devices for applying travellers to rings
- D01H 2700/00** **Spinning or twisting machines; Drafting devices**
- D01H 2700/01 . Preparatory spinning machines
- D01H 2700/20 . Spinning mules; Transmissions
- D01H 2700/202 . . Carriages or their movement; Lubrication
- D01H 2700/205 . . Spindles or spindle control in spinning mules
- D01H 2700/207 . . Yarn delivery rollers; Drawing systems for spinning mules; Silver rollers
- D01H 2700/21 . Piecing or cleaning in spinning mules
- D01H 2700/22 . Winding devices for spinning mules
- D01H 2700/24 . Spinning or twisting machines of different kinds
- D01H 2700/242 . . Spinning or twisting devices wherein twist is created during winding
- D01H 2700/245 . Conception or fabrication of drafting cylinders
- D01H 2700/247 . Guiding means for veil or sliver on drafting systems