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

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)

1/003 (Twisting machines in which twist is imparted from the supply packages, e.g. uptwist)

1/006 (Twisting machines in which twist is imparted at the paying-out and take-up stations)

1/02 ring type {arrangements with two or more spinning or twisting devices in combination D01H 7/90)

1/025 (with a condensing device between drafting system and spinning unit)

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

1/10 for imparting multiple twist, e.g. two-for-one twisting

1/101 (in which multiple twist is imparted at the take-up stations)

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)

1/106 (Two-for-one twisting)

1/108 (for two or more supply bobbins one on top of the other)

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)}

1/115 using pneumatic means

1/14 Details (drafting arrangements D01H 5/00; twisting arrangements D01H 7/00)

1/16 Framework; Casings; Coverings {Removal of heat; Means for generating overpressure of air against infiltration of dust; Ducts for electric cables)

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 G10K 11/00)}

1/18 Supports for supply packages

1/183 (Overhead suspension devices)

1/186 (for supplying from cans)

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)

1/22 for rollers (of drafting machines; Roller speed control) (regulating or varying draft D01H 5/32)

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)

1/241 (driven by belt)

1/242 (driven by toothed wheels)

1/243 (driven by friction discs)

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

1/34 . . . with two or more speeds; with variable-speed arrangements [, e.g. variation of machine speed according to growing bobbin diameter (response to reduction in material tension D01H 13/16)]

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 5/06; 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 thereafter; 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 4/06, 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 fellers 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
Kinds or types of spinning or twisting machines; Drafting machines or arrangements; Twisting arrangements

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 1/04)
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 using plastic deformation of members]
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)
Kinds or types of spinning or twisting machines; Drafting machines or arrangements; Twisting arrangements

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 flyders
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 7/02) ; 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. spinnng 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 1/06); 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 carryages (Loading carryages 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)
Common features or details of, or accessories for, spinning or twisting machines of various kinds or types

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 F24E, e.g. by filtering F24F 3/16)

11/001 [Hand tools used for cleaning the machines]
11/003 [with a rotary pin]
11/005 [with blowing and/or suction devices (in general A47L 7/00); in cooperation with thread breakage detecting means D01H 13/1691]
11/006 [travelling along the machines]
11/008 [with static field means]

13/00 Other common constructional features, details or accessories (for open-end spinning D01H 4/00)

13/003 [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)]
13/02 [Roller arrangements not otherwise provided for]
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)]
13/045 [Guide tube]
13/06 [Traversing arrangements]
13/08 [Tension arresters]
13/10 [Tension devices]
13/102 [Regulating tension by regulating delivery of yarn from supply package (D01H 13/108 takes precedence)]
13/104 [Regulating tension by devices acting on running yarn and not associated with supply or take-up devices]
13/106 [for double-twist spindle]
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]
13/12 [Arrangements preventing snarls or inadvertent doubling of yarns (suction end-catchers D01H 5/68)]
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)]
13/145 [set on carriages travelling along the machines; Warning or safety devices pulled along the working unit by a band or the like]
13/16 [responsive to reduction in material tension, failure of supply, or breakage, of material]
13/1608 [where the paying-out and take-up stations are stopped at one and the same time]
13/1616 [characterised by the detector]
13/1625 [Electro-mechanical actuators]
13/1633 [Electronic actuators]
13/1641 [Capacitor sensing means]
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]
13/1675 [Pencil of rays on side of machines]
13/1683 [Pneumatic sensing means]
13/1691 [Thread breakage detector means associated with pneumatic cleaning devices, e.g. suction of broken end of yarn]
13/18 [Stopping supply only]
13/181 [by stopping supply packages]
13/182 [by raising or lifting of one of the drafting cylinders, e.g. by removing of the loading means]
13/183 [the yarn moving out of its normal path, e.g. by lateral diverting]
13/185 [a plate moving in the nip of drafting or guiding cylinders]
13/186 [guiding or drafting cylinders moving by gravity when a yarn breakage occurs]
13/187 [using means stopping the driving of the drafting, guiding cylinders, e.g. friction clutches]
13/188 [by cutting or clamping yarns or rovings]
13/20 [responsive to excessive tension or irregular operation of apparatus]
13/22 [response to presence of irregularities in running material]
13/24 [response to delivery of a measured length of material, completion of winding of a package or filling of a receptacle]
13/26 [Arrangements facilitating the inspection or testing of yarns or the like in connection with spinning or twisting]
13/28 [Heating or cooling arrangements (for yarns (removal of heat from machines D01H 1/16)]
13/30 [Moistening, sizing, oiling, waxing, colouring, or (removal of heat from machines)]
13/302 [Moistening, e.g. for wet spinning]
13/304 [Conditioning during spinning or twisting (for carding or combing D01G 99/005)]
13/306 [by applying fluids, e.g. steam or oiling liquids]
13/308 [by applying solids, e.g. wax]
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)]

15/00 Piecing arrangements (for open-end spinning machines D01H 4/48; in machines for producing textile fabrics, see the appropriate subclasses)

15/002 [for false-twisting spinning machines]
15/004 [for centrifugal spinning machines]
15/007 [for two-for-one twisting machines]
15/013 [Carriages travelling along the machines]

17/00 Hand tools (cop-tube applying apparatus D01H 9/12)
17/02 [Arrangements for storing ring travellers; Devices for applying travellers to rings]

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