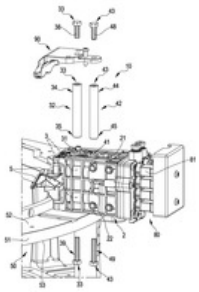
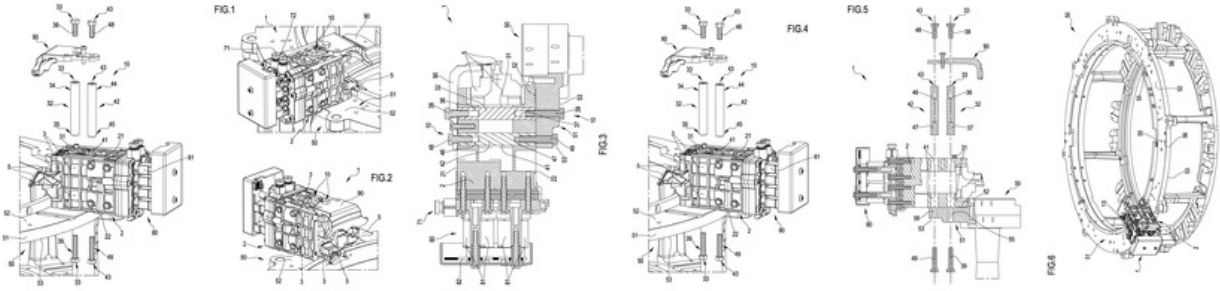
3814 results for (WO2016116380)/PN - Collection: FAMPAT

#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
101.	Command device for a knitting machine	ITBS20130172	2013-11-21	LONATI ADELE* LONATI ANDREA* LONATI FRANCESCO* LONATI MATTEO* SANTONI*	2015-05-22	2015-05-22

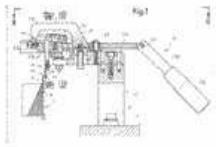
A command device (1) for a knitting machine, the device comprising a body (2) of the device configured for movably housing at least an actuator, at least a command organ (5) movably mounted and associated to the body (2) and destined to interact with one or more organs of a knitting machine, for example one or more needles of the knitting machine, and/or with one or more threads infeeding into the knitting machine, and at least an actuator, movably housed at least partially in the body (2) and destined to controlledly move the command organ (5). The device (1) further comprises a support frame (10), associated to the body (2) and configured so as to increase the structural solidity of the body (2).

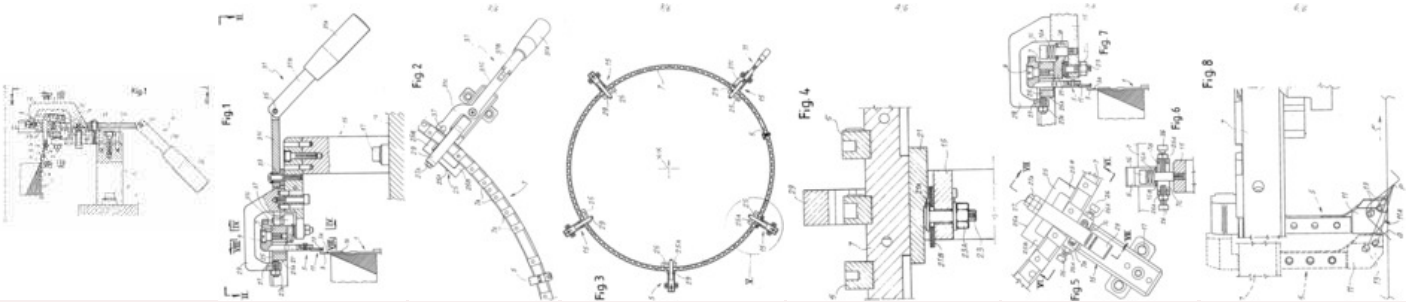




#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
102.	Thread guide control process and system for a circular knitting machine	ITFI20090172	2009-07-31	PILOTELLI MACCHINE TESSILI*	2011-02-01	2011-02-01

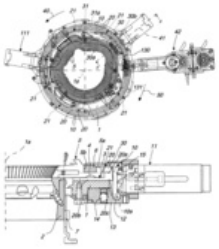
A single cylinder weft knitting machine comprising: a cylinder (1) with needles (3); a plurality of feeds; a common annular support (7) for thread guides (5) of said feeds, each thread guide comprising a latch-opening cam (11). The machine further comprises guiding means (21, 23, 25A, 27) and controlling means (31) for guiding and controlling the common support (7), so as to allow an extemporaneous displacement thereof together with the thread guides (5) carried by it, so as to move said latch-opening cams (11) of the needles from a normal working position to a withdrawn position relative to the path of the latches (3A) and to maintain the threads fed by each thread guide (5) engaged by the needles (3).

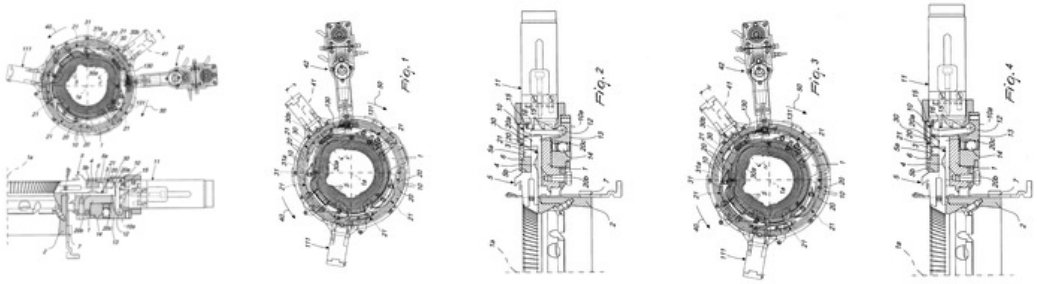




#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
103.	Sinker selection device in a circular machine for knitting hosiery or the like	ITMI20031995	2003-10-15	LONATI*	2005-04-16	2005-04-16

A sinker selection device in a circular knitting machine, comprising for each radial slot (4) of the sinker ring (1) in which sinkers (5) are accommodated, a selector (10) facing the end of the corresponding radial slot (4) directed away from the axis (1a) of the sinker ring (1), the selector being oscillatable on a radial plane with respect to the sinker ring (1) to pass from active to inactive positions, and connected to the corresponding sinker (5), arranged in the corresponding radial slot (4), to induce different actuation of the corresponding sinker (5) along the corresponding radial slot (4), depending on whether the selector (10) is in the inactive position or in the active position. A selection actuator (11) is provided which laterally faces the sinker ring (1) and can engage on command the selector (10) for transfer from inactive to active positions. <IMAGE>

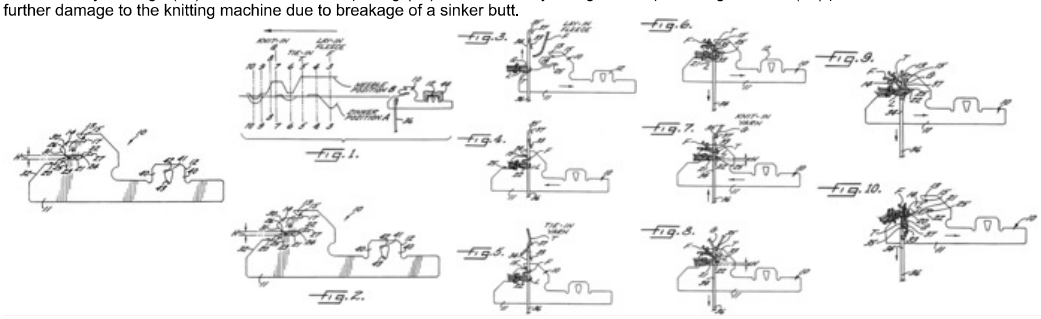




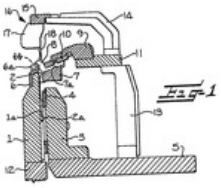
104. High speed sinker for circular knitting machines — US5477707 — 1994-12-08 — MONARCH KNITTING MACHINERY* — 1995-12-26 — 1995-12-26



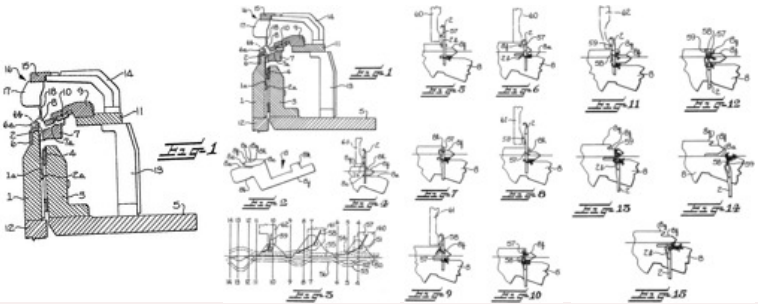
A sinker (10) has a sinker body (11) and a butt (12) for engaging a sinker cam. Upper and lower nibs (13,14) protrude from the sinker body (11) and a first throat (15) is defined between these upper and lower nibs for receiving a yarn. First, second and third knitting platforms (20,21,22) are defined by the sinker body (11) beneath the lower nib (14). A second throat (25) is defined by the lower nib (14) and the second and third knitting platforms (21,22) for controlling the yarn loop. The second platform (21) is closer to the first throat (15) than the first platform (20), and the third platform (22) is closer to the first throat (15) than the second platform. This progressive displacement of the second and third knitting platforms (21,22) provides for quick rolling over of a needle latch due to the resultant elevated position of the yarn loop on the needle shaft at desired points in the knitting operation. This has the advantages of reducing dropped stitches, enabling the use of a shorter needle latch length, whilst maintaining a desired stitch length at the tie-in, and facilitating higher machine operating speeds. The sinker butt (12) may have spaced apart lateral cam engaging portions (40) that are connected by a bridge (41) so as to define an opening (42) of substantially triangular shape having a vertex (43) pointed towards the sinker body, whereby the butt may withstand damage without causing further damage to the knitting machine due to breakage of a sinker butt.



105. Method of constructing double fleec knit fabric using circular knitting machine. — EP0387094 — 1989-03-10 — FUKUHARA SEIKI SEISAKUSHO
HUKKUHA SEIKI SEISAKUSHO
PRECISION FUKUHARA WORKS* — 1990-09-12 — 1990-09-12



A method for constructing a double fleece knit fabric using a circular knitting machine is disclosed. Lay-in, tie-in and knit-in yarns (57, 58 and 59) are fed at respective first, second and third yarn feeders (60, 61 and 62) to the needle. The lay-in and tie-in yarns (57, 58) are caught by the outward, oblique and upward recession of the sinker. The knit-in yarn (59) is fed to the needle (2) and when received onto the upper edge (8g) of the second nose (8e) is drawn down onto the upper edge (8f) of the first nose (8d) of the sinker (8) when the needle (2) is lowered. The needle (2) is lowered to a stitch loop forming position while the sinker (8) is receded from the innermost lower position to the outermost upward position so that the knit-in yarn (59) falls onto the stitch forming ledge (8a) and the respective lengths of the tie-in yarn (58) and knit-in yarn (59) in the needle hook are drawn downward with the older tie-in and knit-in loops being cleared from the needle (2) so as to form a new tie-in loop and knit-in loop over the stitch forming ledge (8a).



106. Dial and cylinder circular knitting machine - with transfer cams guiding needle butts into active or idle cam tracks — DE2648385 — 1976-10-26 — PHILIP MORRIS — 1978-04-27 — 1978-04-27

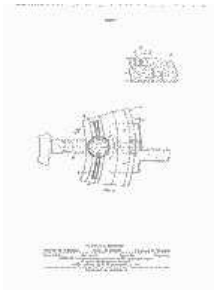
The knitting machine has one set of dial needles and two or more sets of cylinder needles, specifically for jersey knit by cylinder needles and rib knit using both cylinder and dial. One or more needle sets are movable rearward beyond cast-off into inactive position, so that they do not knit while remaining needles knit one or more courses. Specifically needle butts can be selectively transferred from active to inactive cam tracks by actuation of transfer cams, while other transfer cams are operable to return the butts to the active tracks. Simple system with transfer cams selectively operable and functioning without reducing machine speed.

107. Knitting machines — DE2137571 — 1971-07-22 — BILLI*
DZH BILLI END KO — 1972-02-10 — 1972-02-10



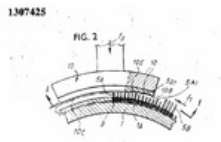
1355409 Knitting-machines G BILLI & C SpA 22 July 1971 [7 Aug 1970] 34324/71 Heading D1C In a circular machine the stitch cams are movable vertically downwards against spring pressure by a fluid control device. A slide 15 carrying a stitch cam 17 and a counter cam 19 is mounted on a stirrup 13. The slide also carries two screws 25A, 25B which determine upper and lower positions of the cams, by abutting upper and lower brackets of the stirrup. The slide is urged upwards by a spring 27. A lever 49, pivoted by a piston 43 of a pneumatic cylinder-piston systems 41-47 forces the slide downwards. Pneumatic lines for the systems are housed in a channel 53.
(From GB1355409 A)

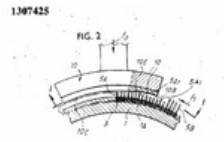




108. Circular knitting machines | DE2053856 | 1970-10-30 | BILLI G BILLI & C FLORENZ* | 1971-07-08 | 1971-07-08

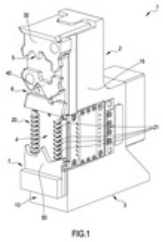
1307425 Knitting-machines G BILLI & C SpA 30 Oct 1970 [15 Nov 1969] 51623/70 Heading D1C A needle raise or lowering cam 10 has a depression 10B in its face at the leading end, so that misplaced short butt jacks or needles 5A1 are not raised in error, but are deflected into the correct path by profile 10E. (For Figure see next page) (From GB1307425 A)

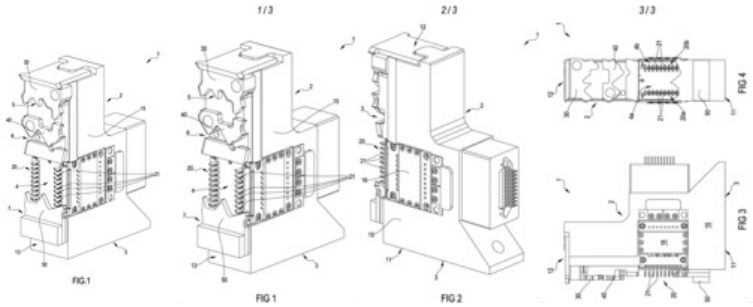




109. Support and control device for circular knitting machines | WO2016193870 | 2016-05-26 | SANTONI* | 2016-12-08 | 2016-12-08

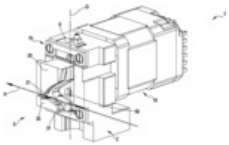
A support and control device (1), designed to be mounted in a circular knitting machines equipped with a needle-holding unit, with a plurality of needles and with a corresponding plurality of selectors for such needles, comprising a support body (2) equipped with a mounting portion (3) to the supporting structure of the knitting machine, a first seat (4) and a second seat (5). The device comprises selecting units (20) for controlling the plurality of needle selectors, associated with the first seat, and at least one cam (30; 40) for controlling the needles or the selectors, associated with the second seat. The selecting units (20) comprise a plurality of levers (21), each one being configured so as to interact with the butts of a respective plurality of needle selectors, and a corresponding plurality of piezoelectric actuators; each piezoelectric selectively moves the respective lever at least between a first position, in which the lever interacts with the butts of the selectors, and a second position, in which the lever does not interact with the butts of the selectors.

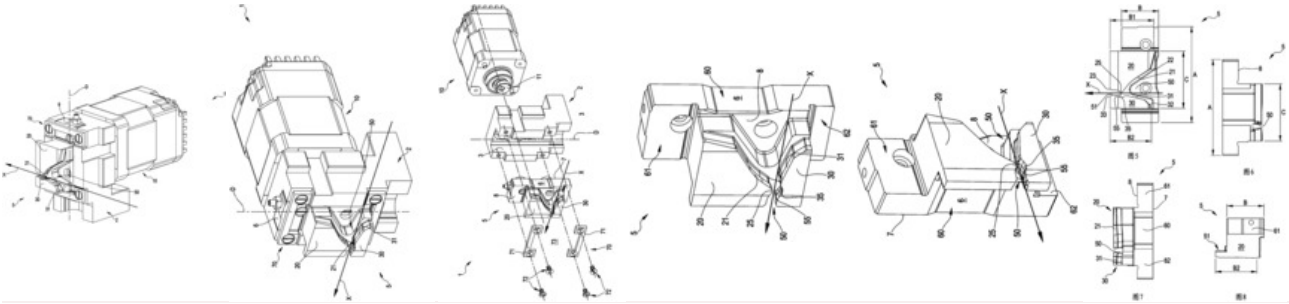




110. Knitting cam set for circular knitting machine | CN105369460 | 2015-04-03 | SANTONI* | 2016-03-02 | 2016-03-02

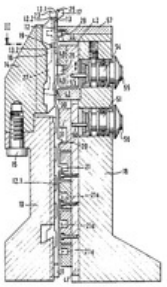
A knitting cam set (1) for a circular knitting machine for knitwear or socks comprises a support part (2) and a knitting cam member (5) including a slide block (6) with a rear side (7) and a front side (8). The knitting cam member comprises a knitting cam (20) on the front side of the slide block and a knitting conjugating cam (30) on the lower front side of the knitting cam. The front side of the slide block has a front part general size which limit the height (A) and the width (B) of the slide block. The knitting cam and the knitting conjugating cam have corresponding widths greater thant the width (B) of the slide block, so that the cams extend out from sides of the slide block.

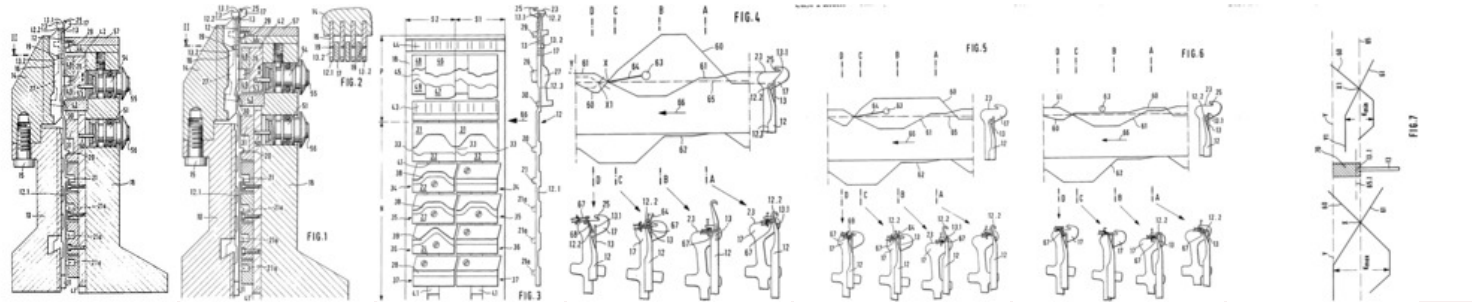




111. Knitting machine | DE3540685 | 1985-11-16 | JIIPURA PATENTOENTOITSUKURUNGUSU UNTO BETAIRIGUNGUSU SIPRA PATENT BETEILIGUNG SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH* | 1986-10-09 | 1986-10-09

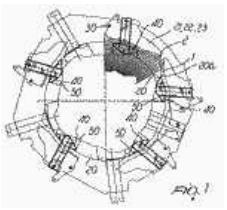
A circular knitting machine includes needles and loop-sinking sinkers longitudinally movable relative to each other in opposite directions. Each needle is provided with a non-movable slide. The movements of the needles and the sinkers are controlled by cams. Each slide has a tip. The control cam for the needle head and the control cam for the sinker and the height of the needle slide tip are selected so that the tips of the needle slides lie in the region which extends between the point of crossing of said control cams and the maximal vertical level of the knockover edge of the sinker.

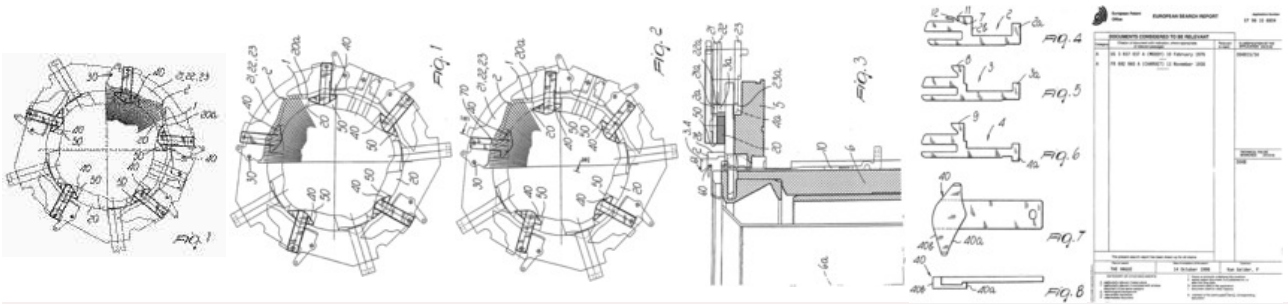




112. Lowering sinker actuation cam set for circular knitting machines for forming standard-terry knitting and sandwich-terry knitting | EP0957193 | 1998-05-14 | SANTONI* | 1999-11-17 | 1999-11-17

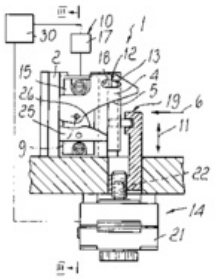
A set of cams for actuating the lowering sinkers in circular knitting machines, for producing standard-terry knitting and sandwich-terry knitting. The cam set comprises cams (20) and countercams (21,22,23) which form a path (1) for the heels (2a,3a,4a) of the lowering sinkers (2,3,4) which have two lowering planes (7,8,9) arranged at mutually different elevations for at least two yarns (60,61) which are dispensed at a feed of the machine to form loops of terry knitting. The cam set also comprises, in the region of the path (1) that corresponds to the descent of the needles (10) of the needle cylinder (6) to form loops of knitting with the two yarns (60,61) dispensed at a feed of the machine, a cam (40) which can move on command into two operating positions in order to produce at least one variation of the path (1) formed by the cams (20) and countercams (21,22,23). The movable cam (40) has a first profile (40a) which can be engaged by the heels (2a,3a,4a) of the lowering sinkers (2,3,4) and is suitable to produce, when the movable cam (40) is in a first one of the two positions, a spacing of the sinkers (2,3,4) from the axis of the needle cylinder (6) with respect to the path (1) in order to move the yarn (60,61), rested on the lower lowering plane (7) of the lowering sinkers (2,3,4), away from the axis (6a) of the needle cylinder (6). <IMAGE>

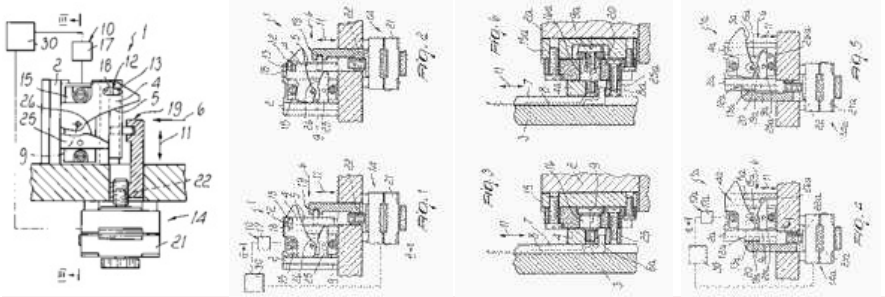




113. Needle actuation device for kitting machines for hosiery or other articles | US6422044 | 2001-02-07 | MATEC* | 2002-07-23 | 2002-07-23

A needle actuation device comprises cam box facing a needle holder and supporting lowering cam whose profile is inclined with respect to needle holder motion. The lowering cam profile is engageable by needle or pusher heel protruding from the holder. The lowering cam is movable along adjustment direction to vary length of knitting loops. Adjusters vary inclination of the lowering cam profile. A needle actuation device comprises a cam box (2) facing a needle holder. Lowering cam(s) is supported at the cam box and has a profile (5) inclined to a motion direction of the holder with respect to the cam box. The lowering cam profile is engageable by heels or needle pushers protruding from the holder toward the cam box. The needle holder has accommodation slots that are parallel to each other and lie at right angles to the motion direction. Each slot accommodates the respective needles so as to be slidable along the slot after engaging yarn at the feed of a knitting machine. New loops of knitting are produced by lowering previously formed loops of knitting. The lowering cam is supported to rotate about an axis perpendicular to a surface portion of the holder facing to the cam box. A first adjuster (10) adjusts a position of the lowering cam with respect to the holder along an adjustment direction (11) with component(s) parallel to the sliding direction of the needles that engage the lowering cam along the slots to vary loop lengths. A connector (12) connects a portion of the lowering cam spaced from the rotation axis with respect to the cam box as a translational motion of the lowering cam along the adjustment direction. A second adjuster (14) is connected to the lowering cam whose translational motion is along the adjustment direction with respect to the cam box.





114.	Procedure for the mesh formation on cord machines as well as plate for the mesh education procedure	IT8027016	1980-01-02	ELITEX KONCERN TEXTILNIHO STROJRENSTVI*	1980-12-31	1980-12-31

In circular knitting machines for manufacturing hosiery and similar goods, yarn fed for knitting is at first drawn by the needles on the upper edges of modified sinkers which, on being retracted allow the loops to slide on to the lower edges thereof, the overall length of the loops being determined by further sinking of the needles and projection of the sinkers, the formed loops sliding below the latches of the needles as they rise again. The sinker has as its front part an obliquely rising lower edge above which is formed a hose with an obliquely rising upper edge.
(From GB2066861 A)

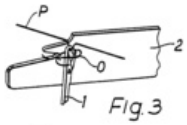


Fig.3

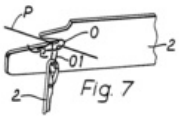


Fig. 7

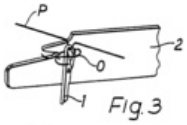


Fig.3

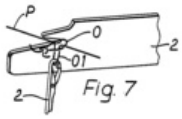
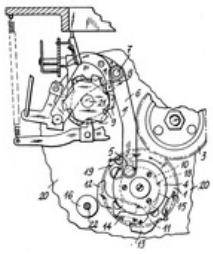
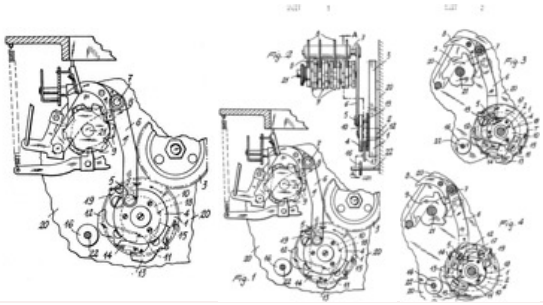


Fig. 7

115.	Drive unit for operating and cutting out the additional thread supplies and associated thread guides on dual cylinder circular knitting machines	DE2401257	1973-02-08	LONATI COST MECC*	1974-08-15	1974-08-15

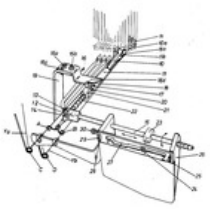
Drive unit for dual cylinder, circular knitting machines. The unit comprises a shaped in juxtaposed relationship with a gear wheel rotably restrained with the rotating members of the dual needle cylinder. A tooth is formed on the shaped disc, selectively engageable with one of two levers freely mounted on pins carried by the gear wheel to rotably restrain said gear wheel with the disc at two discrete relative angular positions. A rocking lever is pivoted to the shaped disc and carries small jacks acting and stepwise rotably driving the control cams for operating and cutting out the additional thread supplies and associated thread guides of the circular knitting machines to which said unit is applied.

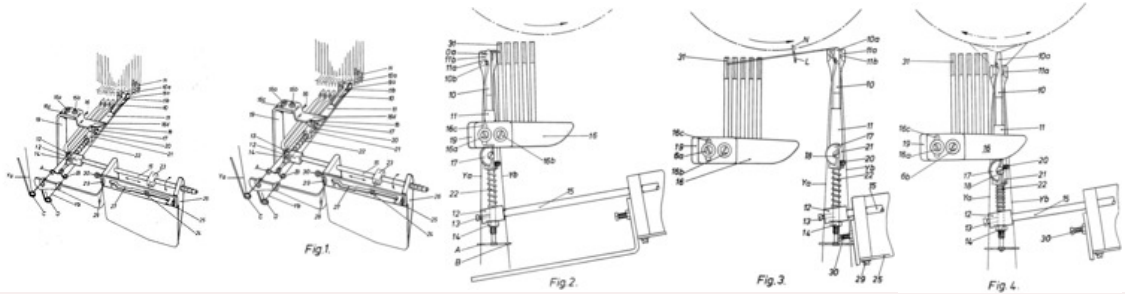




116.	Plating feeders	DE2347697	1972-09-23	BENTLEY MOTORS*	1974-04-04	1974-04-04

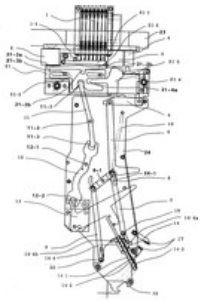
A plating feeder for use in a circular knitting machine comprises a first mouth for supplying a first yarn, and a second mouth for supplying a second yarn and which is movable relative to the first and second mouths together to alter the angle between the yarns fed by the plating feeder during knitting. The first mouth is provided on an elongate first feeder part and the second mouth is provided on a second feeder part slidable lengthwise on the first feeder part. A biasing spring urges the first and second mouths together and a cam follower coacts with the movable mouth and engages with a cam to override the spring. The first mouth is in a form of a narrow aperture for defining a single yarn feed position for a facing yarn and the second mouth is in a form of a trough at least partly surrounding the first mouth for defining alternative, interconnected yarn feed positions for a backing yarn on either side of the first mouth.

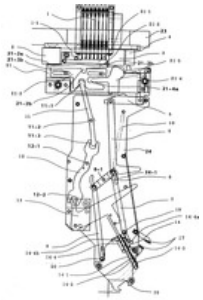




117.	Yarn changing mechanism for continuously running knitting machine involves selection actuators for operating finger and cutter through lever system	ITTO20040515	2003-07-24	PRECISION FUKUHARA WORKS*	2004-10-23	2004-10-23

An actuator (1), which rotates with the same speed as the circular knitting machine, has selector pegs (1-1) that can activate a selector lever arrangement (21). Cams (2, 3, 4) then operate transmission levers (5 to 9, 19, 20) to set and return a finger (14), move a cutter (14-2) and a gripper (14-3). A fourth cam returns the mechanism to a normal position. The number of pegs (1-1) corresponds to the number of yarns to be used, with an additional peg for no yarn selected. An independent claim is also included for changing yarns on a running circular knitting machine using this mechanism, moving the yarn to the appropriate needle along guides (16, 17). In the normal position the guides (16, 17) can move without touching the yarn.





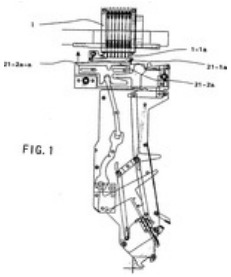


FIG. 1

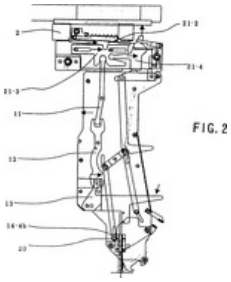


FIG. 2

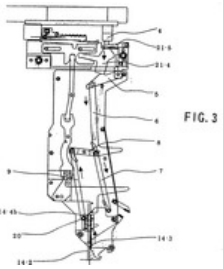


FIG. 3

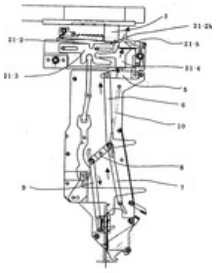


FIG. 4

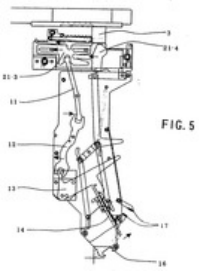


FIG. 5

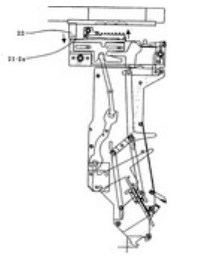


FIG. 6

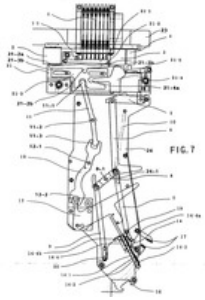


FIG. 7

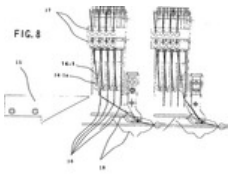


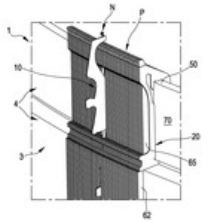
FIG. 8

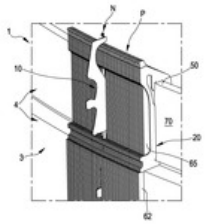


FIG. 9

118.	Circular knitting machine	CN104862872	2014-12-24	SANTONI*	2015-08-26	2015-08-26

A circular knitting machine (1) for knitwear or hosiery, comprising a bearing structure, a needle-bearing organ (3) and a plurality of mobile needles (N) for producing a knitted fabric; a plurality of flanked stitch-forming slots (5) is defined in an external surface (4) of the needle-bearing organ (3), each of which slots movably houses a respective needle actuable with alternating motion along the relative stitch-forming slot. The needle- bearing organ is superiorly provided with a knit-forming plane (P) destined to restingly receive portions of knitting situated between two contiguous needles (N). The machine comprises, in the zones (15) comprised between two contiguous stitch-forming slots (5), retaining organs (10) of the knitting exhibiting each a respective portion defining a stop abutment (11) for the knitting; each retaining organ (10) of the knitting being mobile on command from a first position, in which it does not interfere with the knitting being formed, to a second position, in which it inserts between two contiguous needles (N), in a zone which superiorly faces the knit-forming plane. In the zones comprised between the contiguous stitch-forming slots (5), the machine comprises lamellae (20) defining the knitting plane, each exhibiting a respective defining portion (21) of the knitting plane; each lamella (20) is removably mountable superiorly of the needle-bearing organ, so as to be coplanar with the corresponding retaining organ (10) located in the same zone (15), and in such a way that the respective knitting plane defining portion (21) defines a respective portion (Px) of the stitch-forming plane (P) of the needle-bearing organ (3) comprised between two contiguous stitch-forming slots (5).





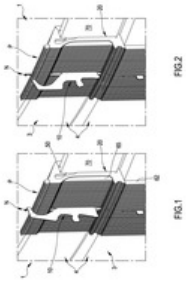


FIG.2

FIG.1

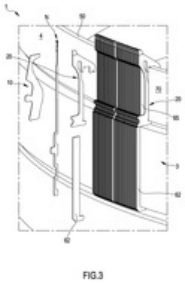


FIG.3

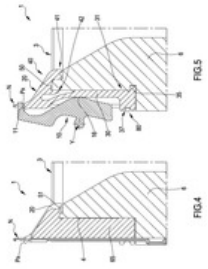


FIG.5

FIG.4

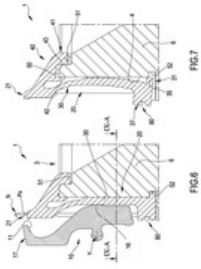


FIG.7

FIG.6

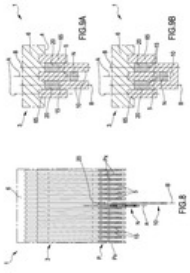


FIG.9A

FIG.9B

FIG.8

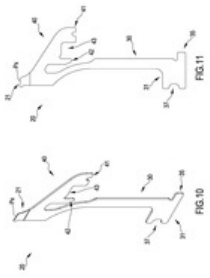


FIG.11

FIG.10

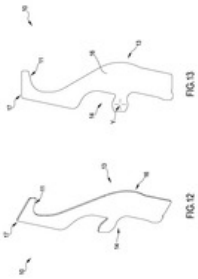


FIG.13

FIG.12

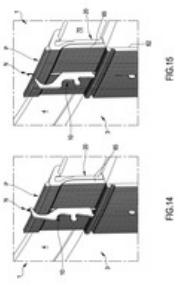


FIG.15

FIG.14

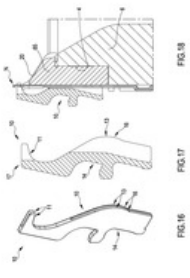


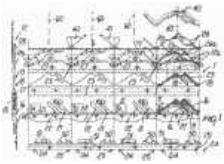
FIG.18

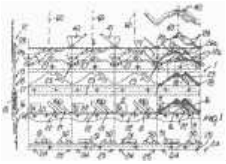
FIG.17

FIG.16

119. Highly versatile circular knitting machine for hosiery and the like with multiple drops or feeds — ITMI981232 — 1998-06-03 — MATEC* — 1999-12-03 — 1999-12-03

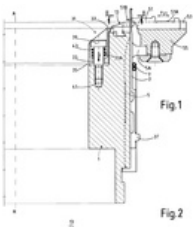
A circular knitting machine for hosiery and the like with multiple drops or feeds comprising a needle cylinder and a needle actuation cam apron (1) which faces the lateral surface of said needle cylinder. Upstream of at least one feed or drop (60) of the machine along the direction of rotation of the needle cylinder with respect to the cam apron (1) there are: a first cam (21), which can be engaged by a heel (16) of the sub-needles (13) and is adapted to raise the needles (12) to the tuck-stitch position, and a second cam (22), which is located downstream of the first cam (21) and can be engaged by the heel (16) of the sub-needles (13) in order to lift the needles (12) to the drop-stitch position. A first auxiliary cam (23) is arranged above the first cam (21), can be actuated on command and can engage a heel (18) of the sub-needles (13) that engage the first cam (21) for the further lifting of the corresponding needles (12) to the drop-stitch position. A first selection device is provided upstream of the first cam (21) and acts on the sub-needles (13) for their engagement or nonengagement with the first cam (21); a second selection device is arranged between the first cam (21) and the second cam (22) and acts on the sub-needles (13) for their engagement or nonengagement with the second cam (22). <IMAGE>

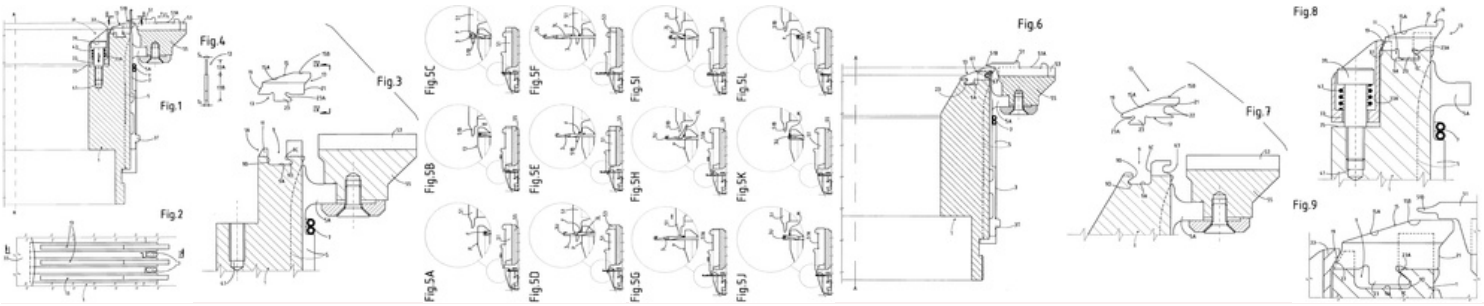




120. Single-cylinder knitting machine and needle cylinder for said machine — ITFI20120209 — 2012-10-15 — Renato Pilotelli;Roberto Pilotelli — 2014-04-16 — 2014-04-16

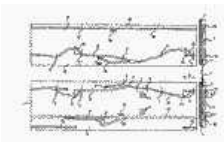
The single-cylinder circular knitting machine comprises a needle cylinder (1) and a plurality of latch needles (3) sliding in respective tracks of the needle cylinder. An annular channel (9) with an undercut (9D) is provided along one end of the needle cylinder. Between each pair of adjacent tracks respective a substantially radial groove (11) is provided, formed in the needle cylinder and intersecting the annular channel (9). In each groove a respective insert (13) is housed. The inserts define a stitch forming surface. Each insert (13) has an appendix (23) that is inserted in the undercut (9D) of the annular channel (9). At least one blocking element (31) is also provided that holds the inserts (13) in a working position in their respective grooves (11).

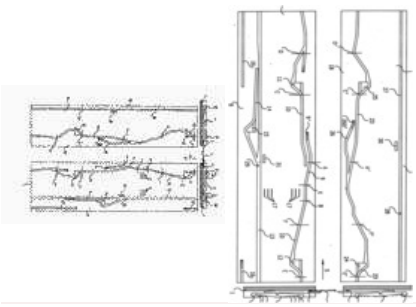




121. Cam system for a double-cylinder circular knitting machine — ITMI930326 — 1992-02-21 — UNIPLET* — 1993-02-19 — 1993-02-19

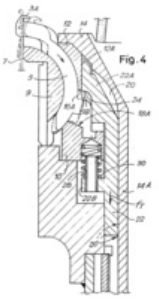
a) Cam system for a double-cylinder circular knitting machine. b) The system is characterised in that the cam system includes, in each needle cylinder (1, 2), passages (27, 9, 13) for guiding the empty-needle grippers (3) to levels where their end-pieces (tips) open the catches (latches) of the opposite needles (4) and this is done at levels corresponding to a group of guide ends (52, 51) and/or to the other group of guide ends (52, 51) of the swinging (rocking) selection grippers (5). <IMAGE>

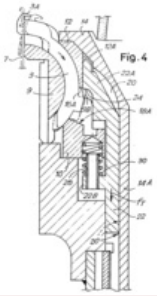




122. Circular knitting machines IT8009469 1980-06-16 SAVIO* 1980-06-16 1980-06-16

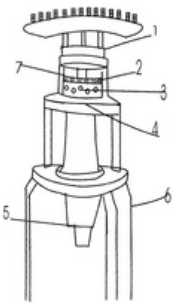
A circular knitting machine has, on guide means parallel with the axis of the needle cylinder and situated between two structures 10, 12 forming the two guiding sides of the sinkers, a slide 22, having at one end an extension 22A with a cam profile, 24. Spring-loaded means 30 act on the slide to urge the cam profile of the slide in a direction to project into an annular cam track 16A, 18A for the sinkers 3 and act on the ends of the control heels 3B of the sinkers to urge them to tension the stitches. <IMAGE>

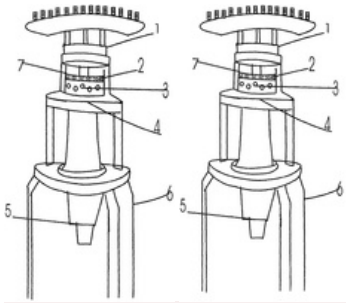




123. Double-knit small circular machine CN103194848 2012-01-09 DING GUOFU 2013-07-10 2013-07-10

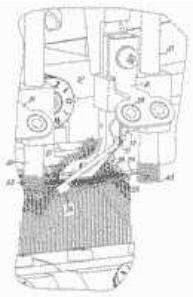
The invention provides a double-knit small circular machine. The adopted technical scheme is that the double-knit small circular machine comprises a creel (1), an upper dial (2), a lower needle cylinder (3), a needle pressing triangle (4), a cloth rolling machine (5), a rack (6) and a crochet hook (7), and is characterized in that the upper dial (2) is arranged on the lower needle cylinder (3); the ratio of the number of needles of the upper dial (2) to the number of the needles of the lower needle cylinder (3) is 1:1 or 1:2; and nature width of a manufactured product is 9-12.5 cm, the horizontal-pull elasticity of the product is four times of the internal elasticity, the direct-pull elasticity of the product is 1-1.5 times and 1-2.5 times of the elasticity, and a finished product has the characteristic of seamlessness. The double-knit small circular machine is suitable for textile socks, single-layer warm-keeping pantyhoses, double-layer warm-keeping transparent pantyhoses, double-layer warm-keeping and body-building pantyhoses; and the produced knitwear is seamless, high-elasticity, close-fitting, soft and comfortable.

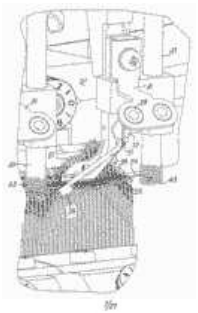


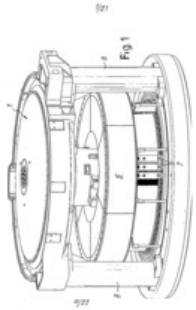


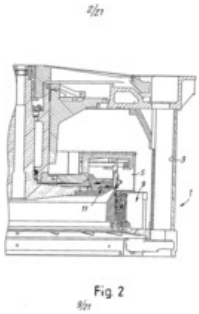
124.	Device and method for automatic linking in knitting machines and machine comprising said device	WO2006064528	2004-12-17	PILOTELLI MACCHINE TESSILI* PILOTELLI MACCHINE TESSILI S R L PILOTELLI MAKINETESHIRISOTCHITA RESPONSE SABIRITA LIMITERATA	2006-06-22	2006-06-22

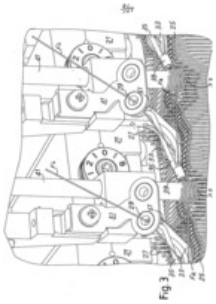
The device comprises: a path for the working yarn (FL); a yarn guide (33) for the working yarn; a retention member (43; 43A; 43B) for the secondary yarn (FA); a support (35, 39) for said secondary yarn. The support for the secondary yarn is movable between an idle stand-by position and an operating position, in which the secondary yarn is transferred to the needles of the machine (25, 27).

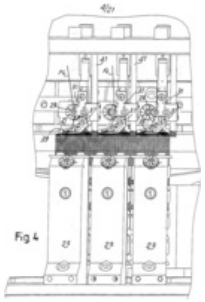


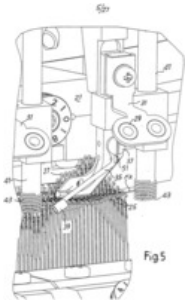


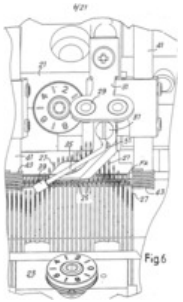


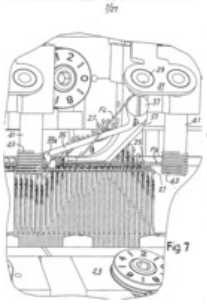


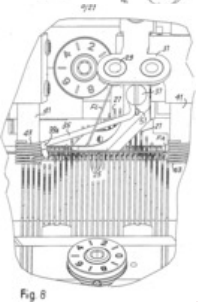


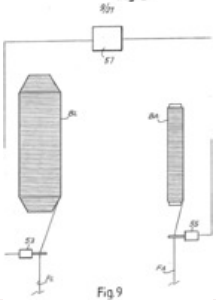






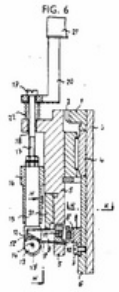


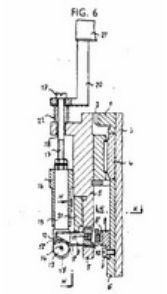




125.	Circular knitting machine	DE1805782	1968-10-29	ELITEX KONCERN TEXTILNIHO STROJRENSTVI*	1969-07-03	1969-07-03

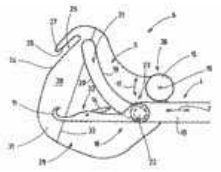
1,230,809. Knitting. ELITEX ZAVODY TEXTILNIHO STROJIRENSTVI GENERALNI REDITELSTVI. 6 Nov., 1968 [16 Nov., 1967], No. 52609/68. Headings D1C and D1K. A stitch cam 21 for a circular machine is axially movable, e.g. to increase the stitch length in a rotary knit heel construction, by means of a radially movable slide cam 9. The stitch cam, mounted on holder 20, may be pulled down against the action of spring 22 by link rods 15, 17 carrying a roller 13. The slide cam is movable radially by means of a cam ring 8 fixed to the bottom of the needle cylinder and bearing against roller 11 mounted on the cam. When the stitch cam is to be lowered a ring 31 is released and rotated by spring action so that a depending projection forces the slide cam to the lowered position 9'. Thus when the cam is moved radially by cam 8 it engages roller 13 and lowers the stitch cam.
(From GB1230809 A)

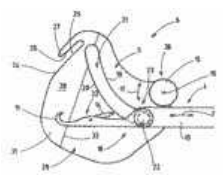


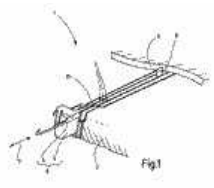


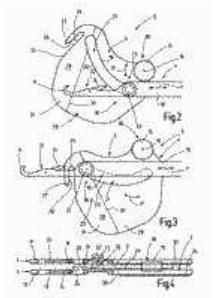
126. Knitting system with a needle driven holding down sinker | CN101597836 | 2008-06-04 | GROZ BECKERT* | 2009-12-09 | 2009-12-09

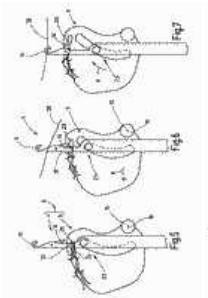
The locking and releasing plate (5) has a device (18), which forms a moderate connection between a knitting needle (4) and locking and releasing plate. The locking and releasing plate is provided with a bearing device (15) for rotatable bearing in the needle bed, and has a surface body, in which the releasable edge is formed.

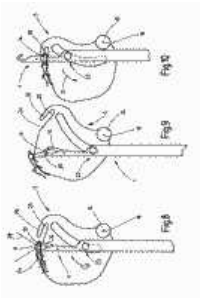






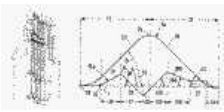


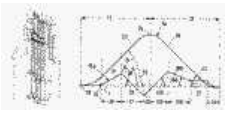


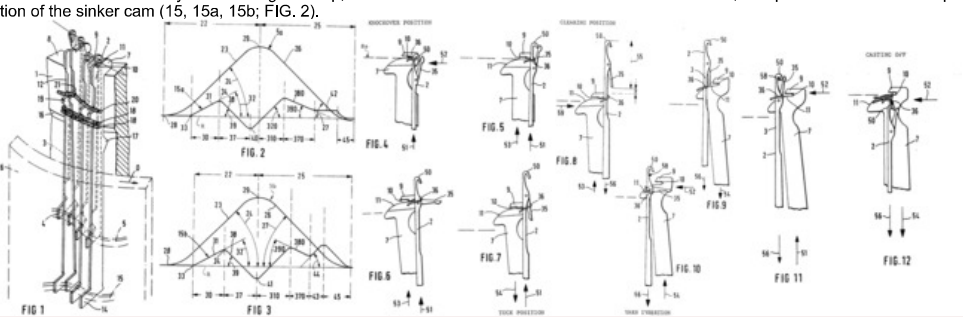


127. Knitting machine with rocking knock-over bits, and method of knitting therewith | IT8368341 | 1982-12-23 | MEMMINGER
MEMMINGER 7290 FREUDENSTADT
MEMMINGER IRO* | 1983-12-22 | 1983-12-22

To insure gentle latch operation, and particularly gentle opening of the latch, the last-knitted loop (36) is constrained to move in the same direction as the needles (2) by controlling movement of sinkers (7) in the same direction as the needles, at a speed slower than needle speed during the raising phase of the needles (FIGS. 5, 6), so that initial movement of the latch occurs slowly and not abruptly to permit faster knitting speeds by reducing stresses on the latch. Conversely, during closing movement of the latch (FIGS. 9, 10), initially, the loop and the needle are lowered simultaneously, the lowering speed of the loop, controlled by the sinker (7) being slower than the lowering speed of the needle. Cast-off can be improved by rapidly controlling the loop by suitable sinker movement (FIGS. 11, 12). The projection distance of the needle can be decreased to at most that of the latch motion distance by constraining the loop, held on a sinker as well as on the shaft of the needle, to a position below the rest position of the sinkers by suitable construction of the sinker cam (15, 15a, 15b; FIG. 2).

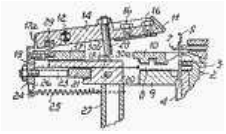


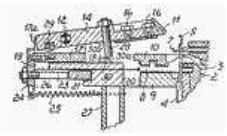


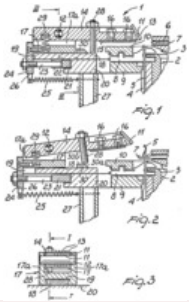


128. Yarn feed unit in a single-cylinder circular knitting machine | IT8021362 | 1980-04-01 | COSTRUZIONI MECCANICHE LONATI*
LONATI COST MECC | 1980-04-01 | 1980-04-01

A yarn feed unit for a single-cylinder circular knitting machine comprises a plurality of yarn feeding fingers independently journalled to a common axis and independently movable between an inoperative and an operative position. The axis is supported by a carrier body which is radially displaceable with respect to the needle cylinder between a work position close to the needle cylinder and a rest position remote from the needle cylinder. Movement of the carrier body from the work position to the rest position causes the operative yarn feeding fingers to be simultaneously tilted into the inoperative position and all the yarn feeding fingers to be radially withdrawn from the needle cylinder, thus allowing rotation of the needle cylinder and needle dial to set the machine without any risk of damaging the needles and without manually handling the dial needles.

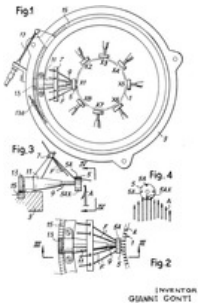


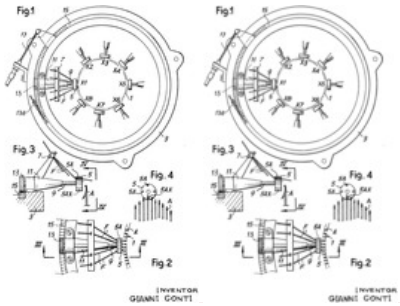




129.	Selective yarn changing device for circular knitting machines	DE1919474	1969-04-17	BILLI* G BILLI & C FLORENZ	1969-11-27	1969-11-27

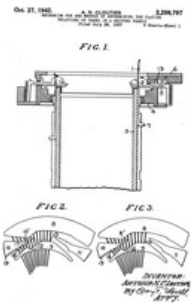
A yarn changer, especially for use at each feed of a multifeed circular ladies hosiery machine, having a yarn-feeding disc with a plurality of circularly spaced yarn-feeding holes therein with the disc being angularly oscillatable to selectively feed each of a like plurality of yarns to the needles. In each yarn changer the disc is mounted at one end of a rotatable rod upon the other end of which is mounted a spur gear and a ring gear is provided on the machine in mesh with the spur gears of the yarn changers at each of the feeds to commonly turn all the discs to commonly change the yarns being fed at all of the feeds of the machine.

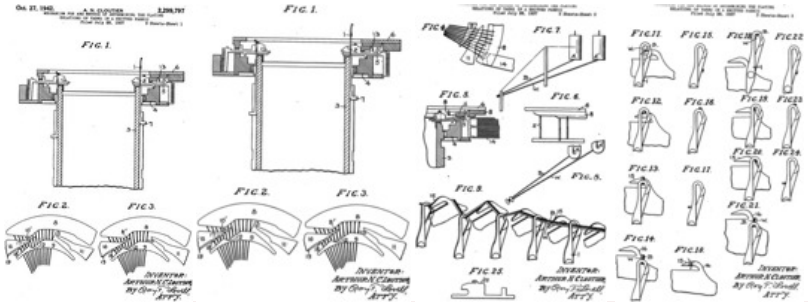




130.	Mechanism for and method of determining the plating relations of yarns in knitted fabrics	FR841234	1937-07-28	HEMPHILL*	1939-05-15	1939-05-15

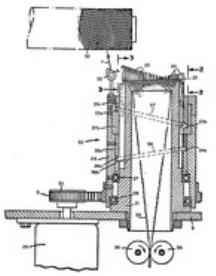
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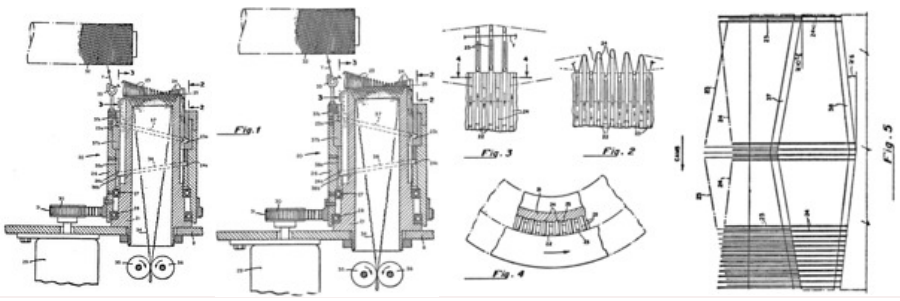




131.	High speed knitting machine and methods	US3934431	1973-10-29	WHITAKER*	1976-01-27	1976-01-27

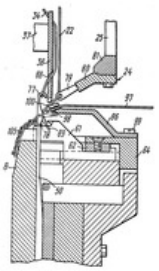
A high speed continuous knitting machine wherein the cylinder has a substantially circular cam track for the needle butts having a substantially uniform slope and disposed at an oblique angle relative to the axis of the cylinder, and also including cam controlled axially moveable sliders disposed between the needles for assisting in castoff, which sliders are moved in a direction opposite to the direction of movement of the needles.

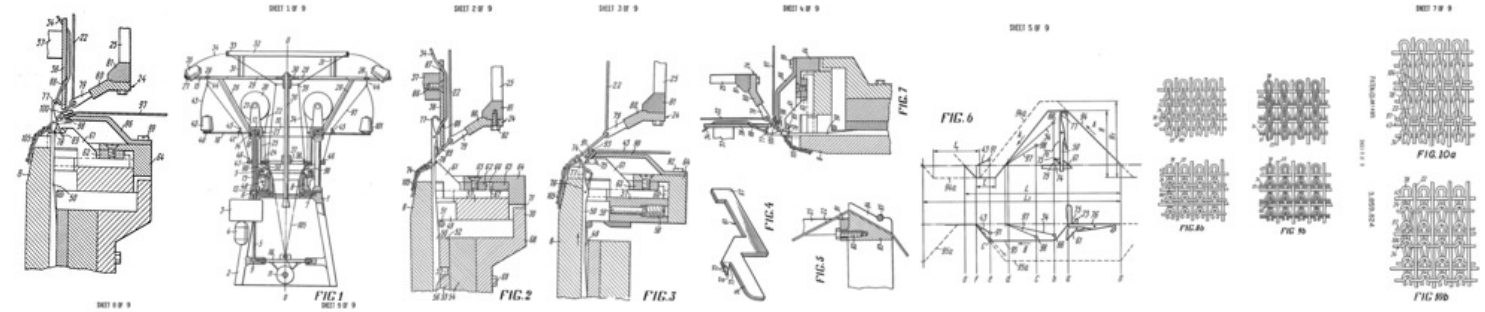


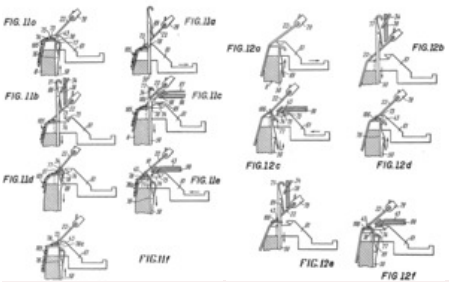


132.	Circular knitting machine for making weft knitted fabrics including warp yarns and weft yarns interconnected by ground loops	US3859824	1973-04-02	GONTARENKO ALEXANDR NIKOLAEVIC;KOROVYANKO ALEXANDR DMITRIEVIC;KRYLOV ALEXANDR IOSIFOVICH;MASLENNIKOV JURY IVANOVICH;MYSHKO VLADIMIR SEMENOVICH;SMIRNOV LEONID STEPANOVICH;VIKULOV IGOR MAKAROVICH;ZAITSEV VALERY PAVLOVICH	1975-01-14	1975-01-14

The circular knitting machine is intended for knitting weft fabrics including warp and weft yarns interconnected by loops of ground yarn. The machine includes sinkers alternating with needles and having each a hook presenting a V-shaped mouth, the hook and the body of a sinker defining therebetween a throat. The V-shaped mouth accommodates therein a warp yarn, as the sinker moves toward the axis of the machine, while the above mentioned throat accommodates therein a weft yarn, as the latter is being guided behind the backs of the needles, when the needles are being lowered; when the needles are being raised, the throat retains the weft yarns and the ground loop links. The ground, weft and warp yarn guides are so arranged that the yarns are positively retained by the needles, as well as by the V-shaped mouth and the throat of each sinker. The herein disclosed machine may further accommodate plating yarn guides, in which way plated knitted fabrics may be produced, including weft yarns and warp yarns interconnected by loops of plating and ground yarns, the warp yarns being encircled at one side by the ground yarns and at the opposite side by the plating yarns.

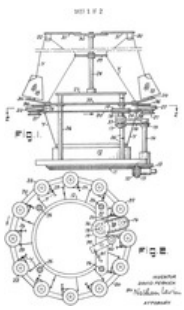


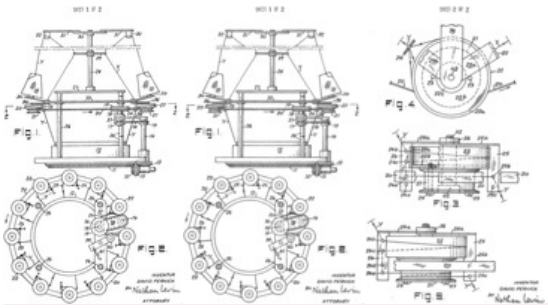




133.	Yarn feeding means for knitting machines	US3651668	1970-01-09	PERNICK DAVID	1972-03-28	1972-03-28

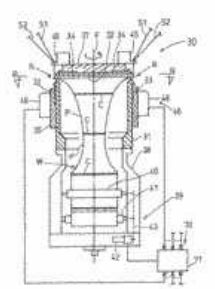
Yarn feeding apparatus for drawing off a plurality of yarns from their cones and feeding the same to the needles of a multiple feed circular knitting machine at the feeds thereof comprising a plurality of circumferentially spaced first roller s rotated by an endless tape trained thereover with the latter driven by the knitting machine in adjustable timed relation therewith, second rollers of larger diameter than the first rollers and positioned atop thereof to rotate therewith, and means to guide the yarns around the second rollers for one or more turns, then (1) to guide the yarns to and between the tape and the first rollers and away therefrom to the needles, or then (2) to guide the yarns around the first rollers for one or more turns in spaced relation to the tape thereon, the first and second rollers acting as winches, under certain conditions, upon the one or more turns of the yarns thereon.

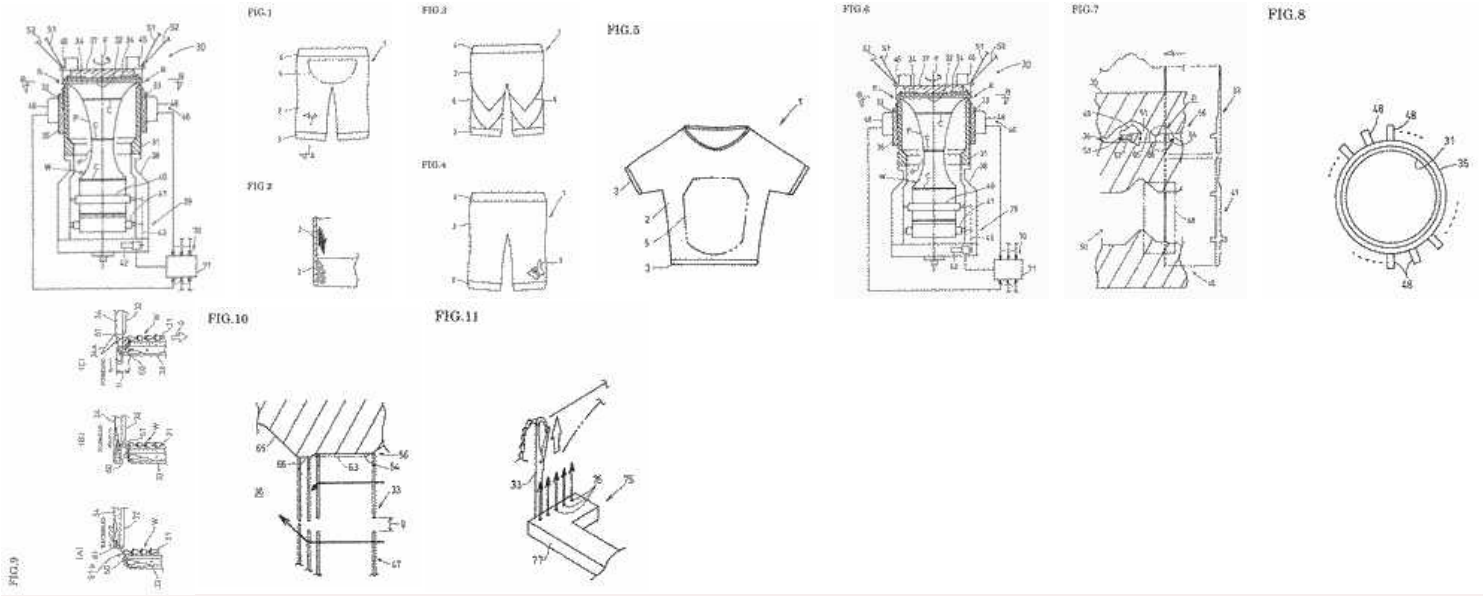




134.	Inner wear, high gauge circular knitting machine, and knitting method using high gauge circular knitting machine	WO2004086889	2004-03-01	GUNZE*	2004-10-14	2004-10-14

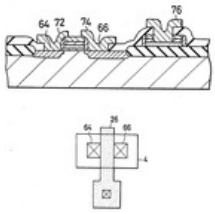
The invention provides innerwear with a structure in which the body fabric and the hem are joined together without sewing and which has outstanding effects in discrimination as products and in showing individuality for users. <??>The innerwear includes a body fabric 2 made of a cylindrical double material with a body size and a hem 3 disposed at the end of the body fabric 2 and having apparently different texture therefrom, the body fabric 2 and the hem 3 being joined to each other without sewing. The body fabric 2 partly has a heterogeneously knitted part 5 with different functions, appearance, and texture therefrom by differentiating the way of knitting in the consecutive knitting process. <IMAGE>

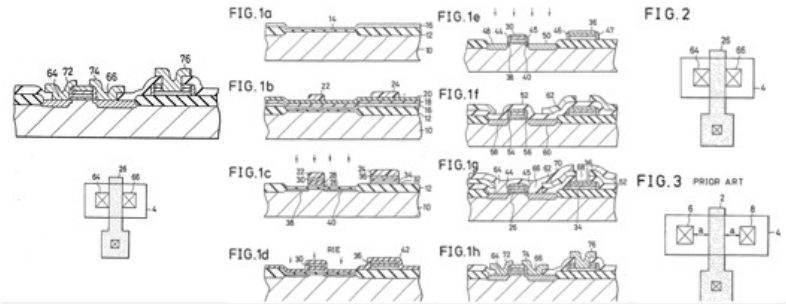




135.	Circular knitting machine	US4810666	1985-07-02	FUKUHARA SEIKI MANUFACTURING PRECISION FUKUHARA WORDS*	1989-03-07	1989-03-07

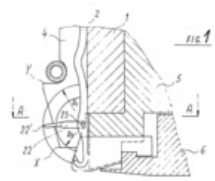
Conversion of a circular knitting machine having a particular diameter of needle cylinder to a machine having a different diameter of needle cylinder is permitted within a limited range of sizes of needle cylinders. This conversion is made possible by providing a plurality of sets of segmental knitting cam support blocks which may be positioned around needle cylinders of different diameters to reduce the normal number of parts which must be replaced when changing a particular knitting machine from one size needle cylinder to another. The number of yarn feeders associated with each segmental knitting cam support blocks of each set is determined so that the number of yarn feeders supported by each segmental knitting cam support block is equivalent to an integral multiple of one pitch covered by one yarn feeder.

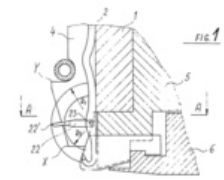




136.	LI small circular knitting machine	IT8324319	1982-12-23	ELITEX KONCERN TEXTILNIHO STROJRENSTVI*	1983-12-22	1983-12-22

The present invention relates to needle tricks (4) in double-cylinder circular knitting machines for manufacturing socks and similar goods, provided with latch needles (2). The invention aims at stabilizing the needle latches (22), particularly in the upper needle cylinder (1), which latches (22) are opened in front of a feed into an outstanding position, upon knocking against the latch guide. This is performed in such a manner that the depth of the needle cylinder trick in region X-Y at the end where the closed needle (2) is positioned, is within the extent of the sector corresponding to the full radius R1 of the latch (22) of a needle (2), and exceeds the extent of the sector which is limited by the length R2 of the needle latch (22) between the latch pin 23 and the widest part of the latch spoon (22'). <IMAGE>
(From GB2132645 A)

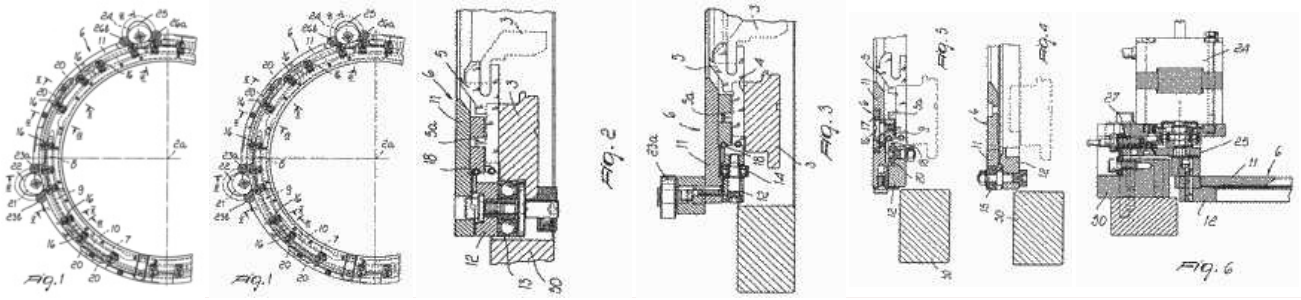




137. Circular knitting machine for hosiery or the like, with device for actuating the knockover sinkers | ITMI20021116 | 2002-05-23 | SANTONI* SANTONI ESSÃ© BEAUTY A ITALY 2 5 1 3 5 BRESCIA VIA CARLO FIJES 1 4 | 2002-05-23 | 2002-05-23

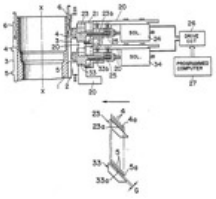
A circular knitting machine for hosiery or the like, with a device for actuating the knockover sinkers, comprising a sinker cover (6), arranged in an upward region and coaxially to the sinker ring (3) and supporting at least one cam (7) and one complementary cam (8, 9, 10) arranged outside the cam (7) with respect to the cylinder axis (2a), the cam and the complementary cam (7, 8-10) forming path portions running around the cylinder axis (2a) engageable by a heel (5a) of the knockover sinkers (5) to actuate movement thereof along a radial direction, the first actuation means (21) varying angular position of the sinker cover (6), and the second actuation means (24) varying movement of the complementary cam (8, 9, 10)

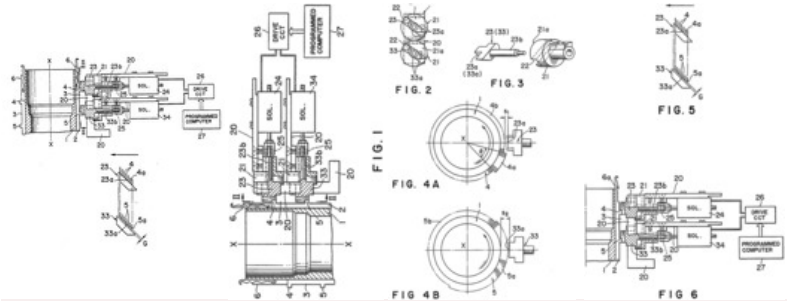




138. Needle actuating device for a circular knitting machine | IT8848295 | 1987-08-25 | NAGATA SEIKI* NAGATA SEIKI 24 7 KITA OTSUKA 2 CHOME TOSHIMA KU TOKYO TO JAPAN | 1988-08-23 | 1988-08-23

A device for selectively lifting a multiplicity of needles which are mounted to an upstanding, rotatable cylinder for up and down sliding motion. Each needle has a shank with two butts formed in vertically spaced positions thereon, so that there are formed tow rows of such butts extending circumferentially of the cylinder. The upper one, for example, of the two rows of butts includes a group of butts that are longer than the other butts of the same row. Slidably supported adjacent the cylinder are a pair of cams which are independently moved, as by solenoids, toward and away from the cylinder and which have sloping cam surfaces for relatively sliding engagement with the respective rows of butts when the cams are thrusted toward the cylinder in rotation. The vertical distance between the sloping surfaces of the two cams is so determined in relation to that of the butts on each needle shank that when the upper cam is first moved toward the cylinder for lifting the needles having the longer butts by making relatively sliding contact therewith, the other cam can be subsequently moved toward the cylinder without being loaded by the lower butts of the needles being raised. Then, as the longer upper butts ride off the upper cam, the following needles will be raised as their lower butts ride onto the lower cam.



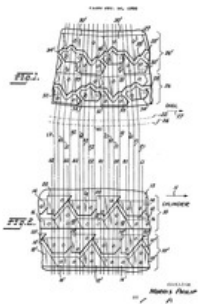


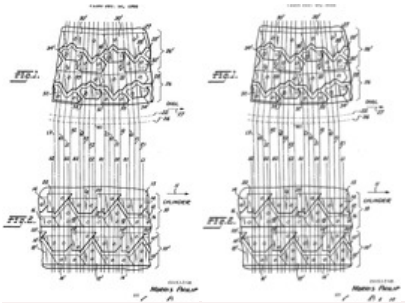
139. Control means for circular knitting machines | GB1406845 | 1972-09-01 | STOP MOTION DEVICES* | 1975-09-17 | 1975-09-17

No abstract available

140. Method of knitting and camming mechanism therefor | BE742920 | 1968-12-12 | PHILIP PHILIP MORRIS* | 1970-05-14 | 1970-05-14

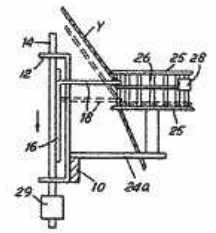
1290192 Knitting-machines M PHILIP 10 Dec 1969 [12 Dec 1968] 60274/69 Heading D1C In a cylinder and dial interlock machine one or both (as shown) needle bed(s) is/are provided with sets of long and short needles actuated by different cam tracks 10, 10'; 26, 26'. The sets of needles in the one bed and corresponding needles in the other co-operate to knit alternate courses. The dial needles are delayed while moving to the cast off position, where they have passed the back of and cleared the adjacent cylinder needle. Thus the dial needles do not interfere with the operation of the intermeshing cylinder needles which can begin to rise in their cycle for knitting the next course. Thus the long and short dial needles are delayed between G2, H2 and L1, M1 in their respective tracks, at which time the short and long cylinder needles respectively begin to rise up cams 18, 18'.
(From GB1290192 A)

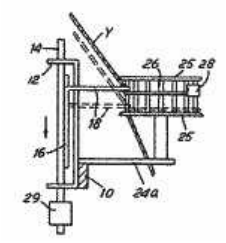


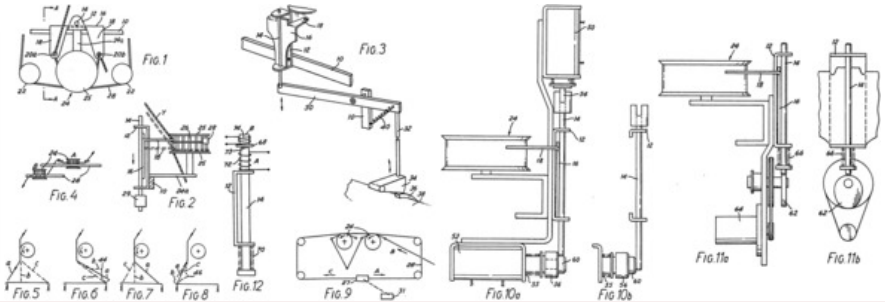


141. Method of knitting | IT7926235 | 1979-09-28 | CARROTTE FREDERICK* CARROTTE FREDERICK H | 1979-10-03 | 1979-10-03

The present invention relates to the knitting an item of fabric on a knitting machine requiring interrupted or intermittent yarn feed. In the process of the present invention, the yarn is positively fed at least during a part of the knitting process. The positive feed is removed prior to a change in the yarn feed. Yarn feed ceases or knitting continues without interruption through the change after the positive feed is terminated.

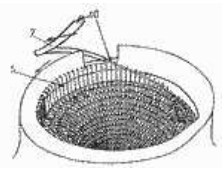


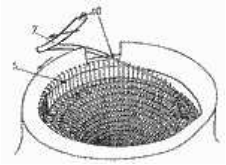




142. Pneumatic feed | BE844843 | 1975-08-04 | RHONE POULENC TEXTILE* | 1977-02-03 | 1977-02-03

A high speed knitting machine and method, in which yarn is fed to the needles of the knitting machine by fluid under pressure in a feed conduit, in such a way that it is directed into the hooks of the needles tangentially to the stems of the needles.





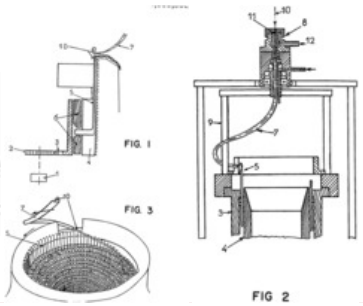
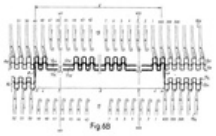
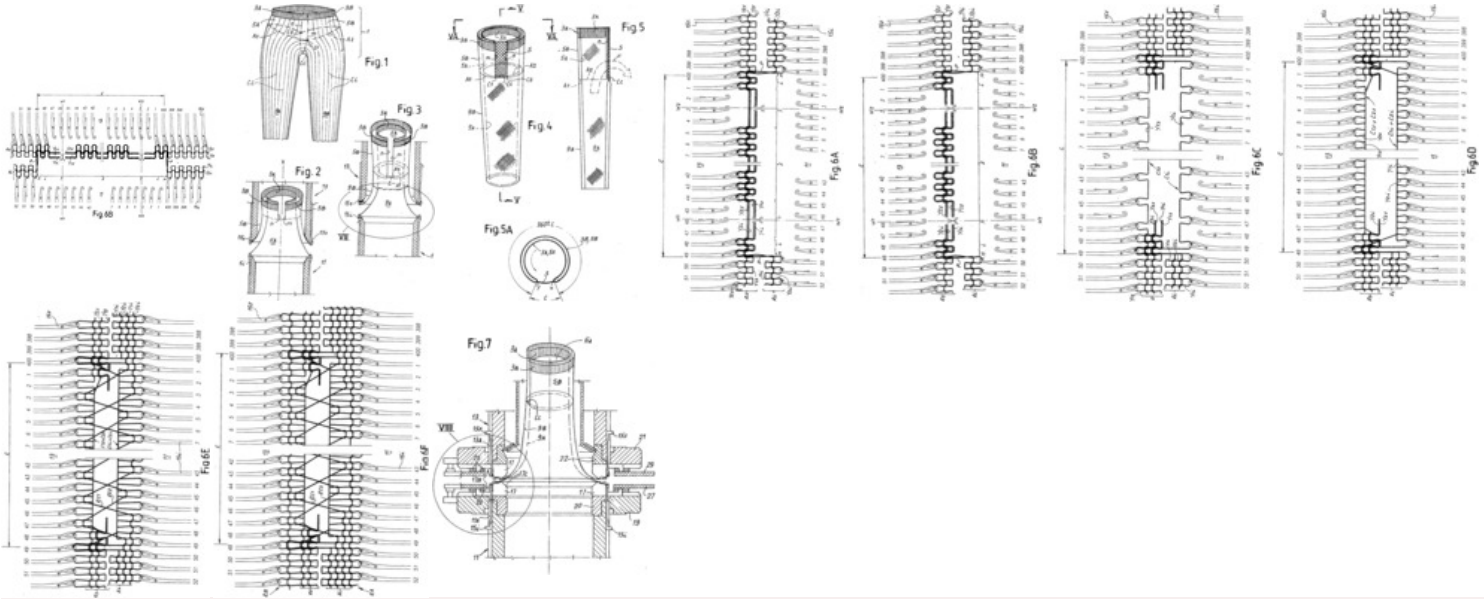


FIG 2

143. Method of manufacturing a knitted garment, machine for implementing it and garment thus produced | ITFI20110039 | 2011-03-16 | CONTI P* GOLDEN LADY* | 2012-09-17 | 2012-09-17

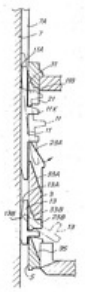
The method for manufacturing a knitted garment comprising a body (1) and two legs (9 A, 9B) by means of a double cylinder circular knitting machine with two superimposed cylinders (11, 13), comprising the steps of: knitting with continuous motion simultaneously with the two cylinders (11, 13) respective fabric portions (3A, 5A); 3B, 5B) forming the body (1), said portions being joined along a front median joining line (m) and a back median joining line (n); after knitting of the body, knitting with continuous motion simultaneously said two legs (9 A, 9B), each by means of a respective cylinder (11, 13), During knitting of the body (1), along a partial needle arc (C), needles (15s) of at leastone (13) of said two cylinders (11, 13) produce a fabric strip (S); after knitting the body, there is formed along said partial needle arc (C) a joining crotch line (CC) between the legs (9 A, 9B). The fabric strip (S) produced by the partial needle arc is separated and removed from the body (1).e

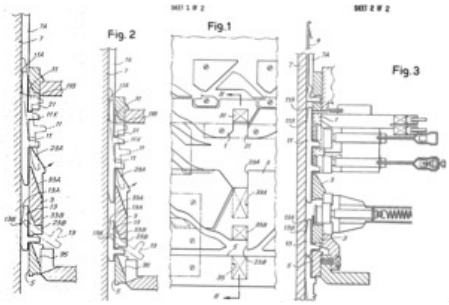




144.	Circular knitting machine with jack removal slots	ES172333	1971-09-09	BILLI* BYLLY & C G BILLI	1972-03-16	1972-03-16

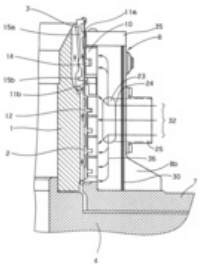
At least one through recess extends through the cam shell surrounding the rotary needle cylinder of a circular knitting machine at a predetermined position in line with the cam track therein to allow for withdrawal of the needles jacks therethrough. The upper and lower edges of the recess are chamfered to permit inclination of the jacks with respect to the needle cylinder to facilitate said withdrawal operation.

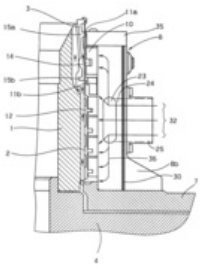


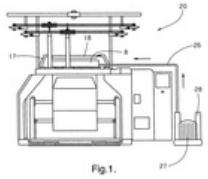


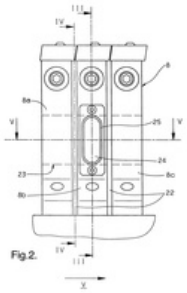
145.	Circular knitting machine with a dust removal unit	US20060070408	2004-10-06	SIPRA PATENT BETEILIGUNG* SIPRA PATENT DEVELOPMENT COOPERATION SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH	2006-04-06	2006-04-06

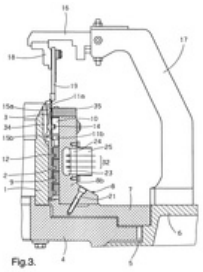
Circular knitting machine comprises frame; carrier; segments; annular space; and dust removal device having introduction mechanism containing opening(s) penetrating a selected segment and being in communication with a connection for compressed air. The opening is configured as an air distribution channel extending in circumferential direction of carrier. The dust removal device contains sealing mechanism sealing two annular gaps. Circular knitting machine, comprises frame; carrier rotatably mounted in the frame and having grooves distributed in circumferential direction and intended for receiving knitting tools; segments opposite the grooves, disposed next to each other in the circumferential direction of the carrier, separated by radial gaps and provided with needle cams for controlling the knitting tools; annular space in an upper region of the carrier and open at the top; and dust removal device having introduction mechanism for introducing a flow of compressed air into the annular space, the introducing mechanism containing opening(s) penetrating a selected segment and being in communication with a connection for the compressed air, the connection being configured on an outer side of the selected segment. The opening is configured as an air distribution channel extending in the circumferential direction of the carrier, the air distribution channel discharging at outlet openings below the annular space into two radial gaps between the selected segment and two adjacent segments and being connected to the connection by a radially extending air supply channel. The dust removal device contains sealing mechanism sealing two annular gaps radially out with the outlet openings.

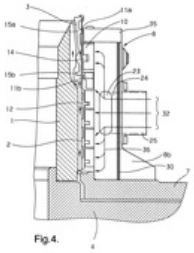


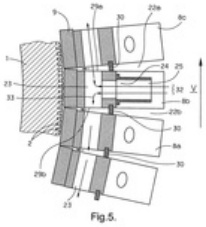






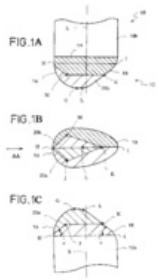


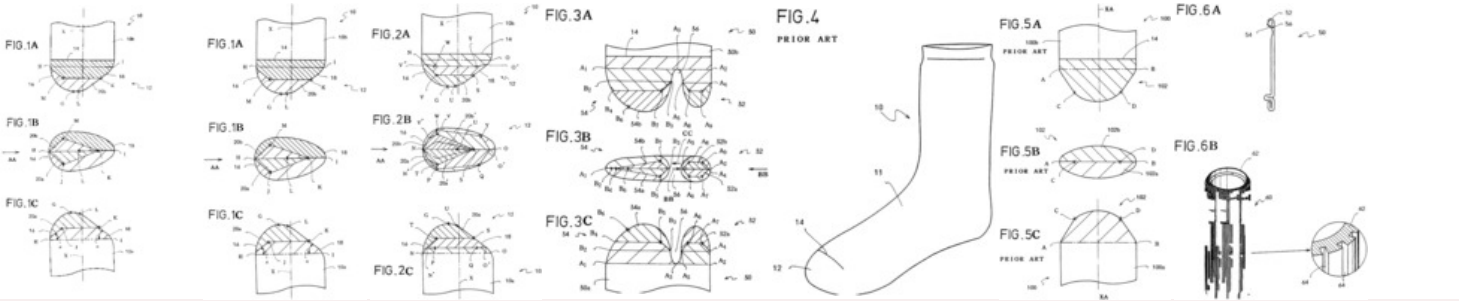




146.	Hosiery toe portion and method of manufacturing the same	DE19820041	1998-04-30	TAKEDA LEG WEAR* TAKEDA LEGWEAR TAKEDA RETSUGU WEAR	1998-11-12	1998-11-12

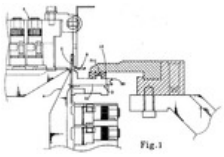
A hosiery, whose shape is quite similar to that of a foot of a man and which never presses the big toe, the hosiery includes a cylindrical section; a toe section being forwardly extended from a front end of the cylindrical section, wherein a front tip point of the toe section is located on a big toe side with respect to a center line of the hosiery; and an additional section being formed in the toe section, wherein thickness of the toe section including the additional section is thicker than that of other parts of the toe section and the additional section is located on the big toe side with respect to the center line of the hosiery.

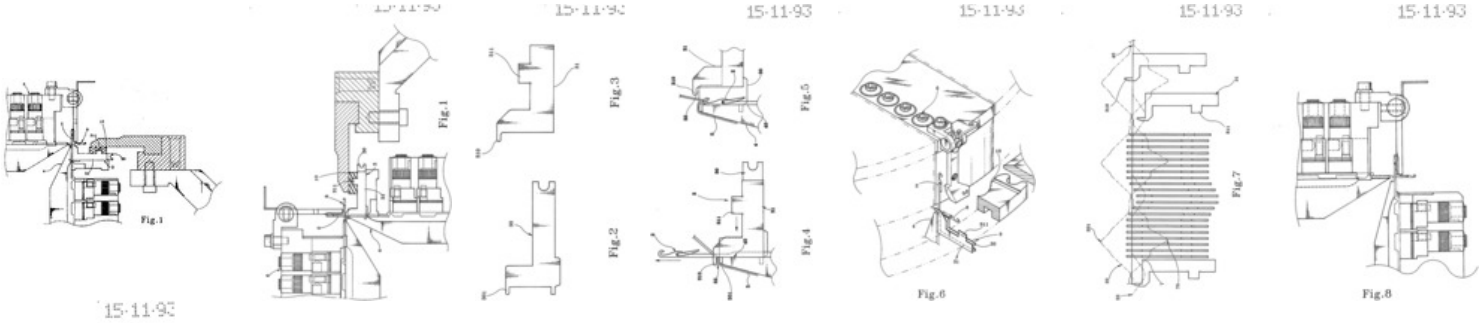




147.	Hold-down mechanism for a double knitting machine knit portion	DE9317466	1993-11-15	PAI LUNG MACHINERY MILL*	1994-04-07	1994-04-07

No abstract available



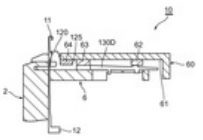


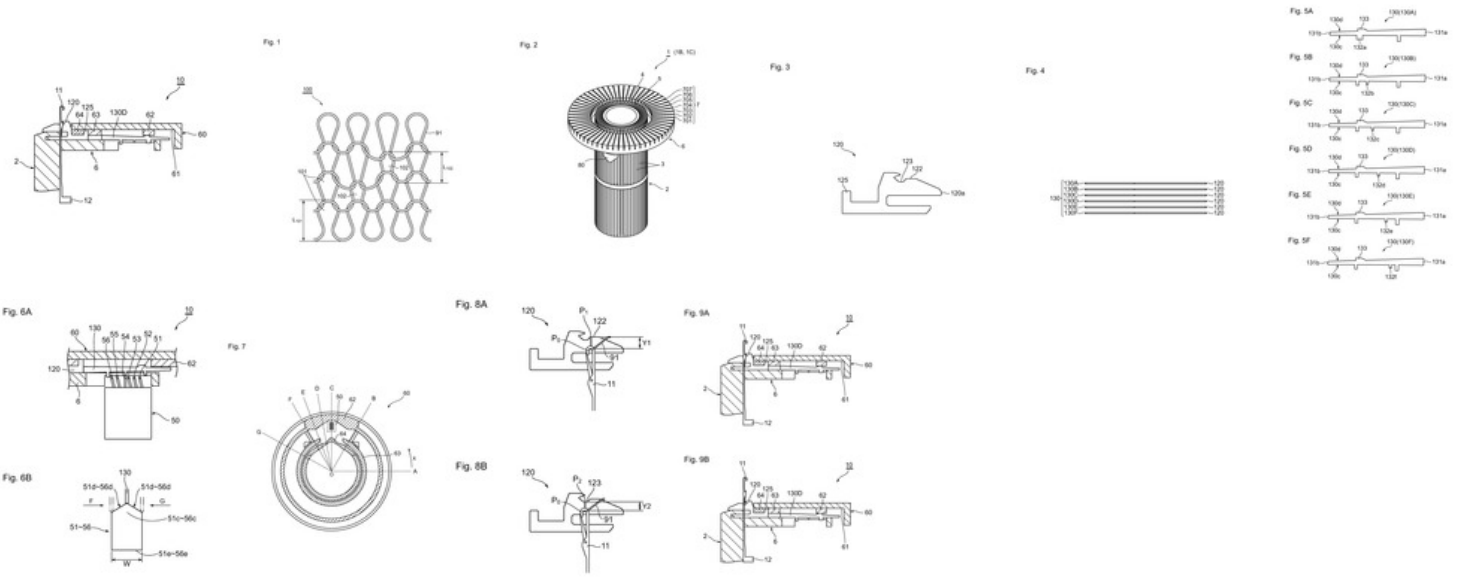




148. Stitch-size controllable knitting machine, and manufacturing method of knitted fabric | US20130205836 | 2013-02-07 | OKAMOTO* | 2013-08-15 | 2013-08-15

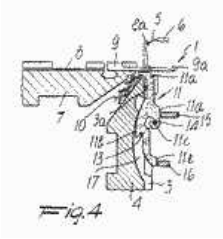
A circular knitting machine includes sinkers and selector jacks corresponding thereto that provided as separate components. The selector jacks arranged radially outside the sinkers, and are provided with selector butts such that the selector butts of circumferentially adjacent selector jacks are arranged at different radial positions. An actuator that acts on the selector butts is arranged radially outside the cylinder. The circular knitting machine prevents a failure of sinker selection, while increasing a rotation speed of a cylinder holding knitting needles.

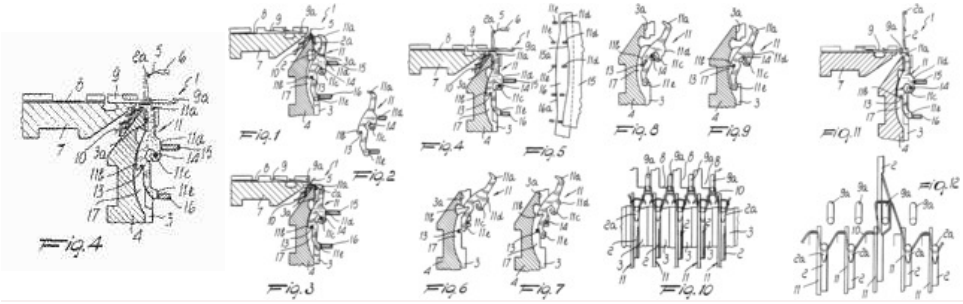




149. Circular knitting machine with knitting retention sinkers | ITMI940982 | 1994-05-16 | MEC MOR* | 1994-05-16 | 1994-05-16

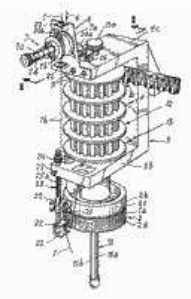
The present invention relates to a circular knitting machine with stitch retention sinkers that comprises a plurality of needles (2), which are accommodated in slots (3) formed in at least one needle supporting element (4) and are controllably movable along the longitudinal extension of the corresponding slot (3) from an extracted position, in which the tip (2a) of the needles (2) protrudes from a longitudinal end of the corresponding slot (3) to engage at least one thread (5) fed by a thread guide (6), to a retracted position, in which the tip of the needles is retracted into the corresponding slot (3) so as to form a loop of knitting (10) with the engaged thread (5), and vice versa. The machine comprises multiple sinkers (11) that are arranged alternately between the needles (2) and are each arranged laterally with respect to a needle (2). The end of each one of the sinkers that is located proximate to the longitudinal end of the corresponding slot (3) from which the tip (2a) of the corresponding needle (2) protrudes to engage the thread (5) is provided with a beak (11a) that is directed towards the bottom of the slot (3). Each sinker is individually oscillatable, by virtue of the action of actuation means (15,16), on a plane that is substantially at right angles to the bottom of the corresponding slot (3) to move its beak from a retention position, in which the beak (11a) engages the knitting (10) formed by the corresponding needle (2), to a release position, in which the beak (11a) is disengaged from the knitting (10), and vice versa. <IMAGE>

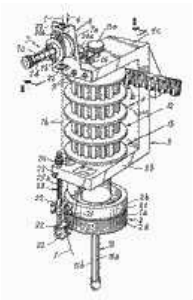


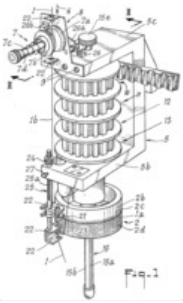


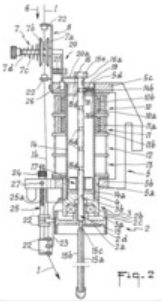
150. Thread feed device for a hosiery knitting machine | SE7508118 | 1974-07-17 | BPIFRANCE; INSTITUT TEXTILE DE FRANCE*; INSTITUTE TEXTILE DE FRANCE BOULOGN | 1976-01-19 | 1976-01-19

A thread feed device for a hosiery knitting machine comprises a tensioning mechanism for the thread, a cylindrical drum for positively driving the thread, a shaft coaxial with the drum and having an axial groove therein cooperating with radially inwardly extending projection means on the drum, and a plurality of rotary magnetic drive members surrounding the shaft and cooperating with a magnetic core on the shaft so that, by movement of the shaft, the magnetic core can be selectively aligned with one of the rotary magnetic drive members.



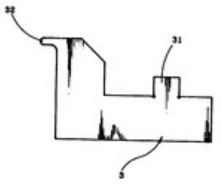


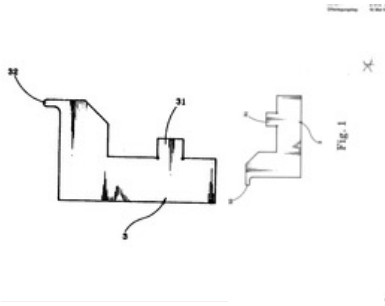


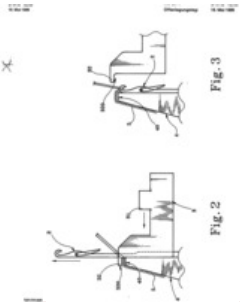


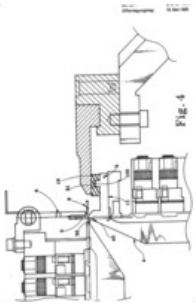
151. Holding mechanism for knitted parts in double knitting machine | DE4438614 | 1994-10-28 | PAI LUNG MACHINERY MILL* | 1995-05-18 | 1995-05-18

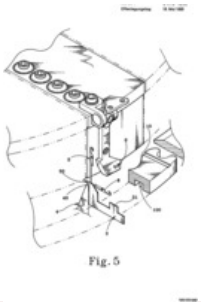
A holding mechanism is for a knitted part made on a double knitting machine and features a row of presser sinkers (3) which move in the radial direction in relation to the row of cylinder needles. Each sinker (3) has a projecting sinker head (32) located at a front sinker end in the horizontal direction. The projecting head (32) can be moved into a front boundary position which is located above the top edge of the knitted part formation surface at a distance that is equal to the thickness of the knitted part which has been knitted during the stitch stroke of the corresponding cylinder needle.

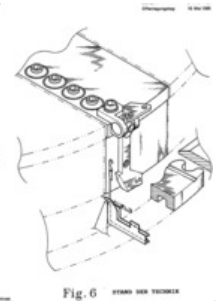






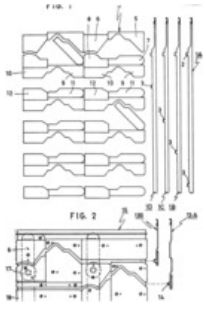


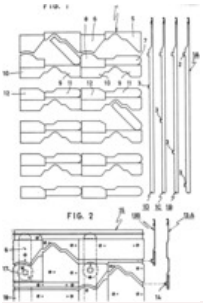


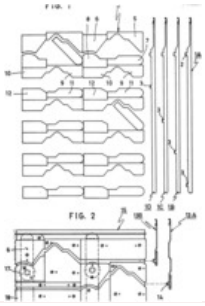


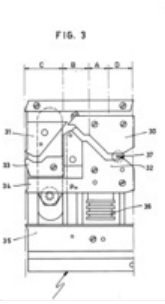
152. Knitting machines | DE2364128 | 1972-12-23 | TELARES CIRCULARES*; TELARES CIRCULARES SOCIEDAD | 1974-06-27 | 1974-06-27

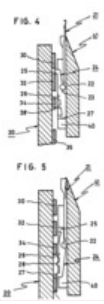
1397350 Knitting machines TELARES CIRCULARES SA 27 Dec 1973 [23 Dec 1972] 59731/73 Heading D1C A knitting machine includes needles 21 having a pivoted jack 24 carrying a knitting butt 25 and butts 26, 27 for following a guide track. A cancelling cam 37 resets the jacks before a pile of selectors 36, which act on selector butts 28. Butts 25 of selected needles are raised by upthrow cam 32 and then follow stitch cam 31. Unselected needles are guided in a horizontal path by engagement of butts 26, 27 between cam 34, 35.
(From GB1397350 A)





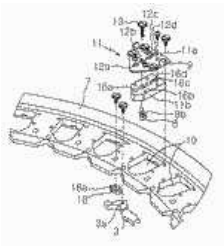


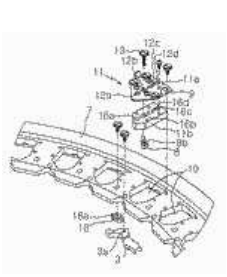


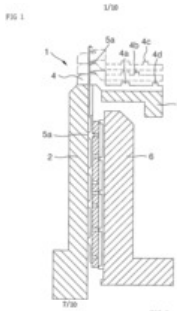


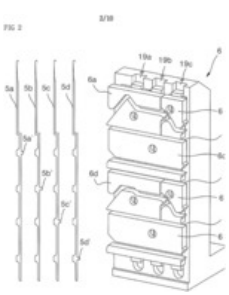
153. Circular knitting machine for both-sided velour textile | TW200519253 | 2004-09-09 | LEE HUI SEONG;LEE HUI-SEONG | 2005-06-16 | 2005-06-16

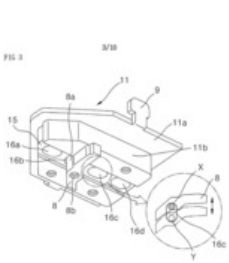
Disclosed is a circular knitting machine for both-sided velour textile. The circular knitting machine includes knitting needles 5a, 5b, 5c and 5d and sinkers 4, 4' and 4", knitting cams 6a, 6b, 6c and 6d provided in a cylindrical cylinder 2, for advancing and retreating the knitting needles and the sinkers, and a sinker cam 3 provided in a circular sinker ring 7, wherein the sinkers 4, 4' and 4" comprise sinker butts 4b, 4c and 4d of second to fourth stages other than the main sinker butt 4a of a first stage, the sinker cam 3 comprises an end 14 on its top front side, a knitting cam box 6 having the knitting cams 6a, 6b, 6c and 6d mounted in is provided as upper and lower fourth stages so that the knit cam 6a, the stitch cam 6b, the miss cam 6c and the tuck cam 6d are separately operated, wherein the knitting cams 6a, 6b, 6c and 6d are arranged so that the height of the knitting needles 5a, 5b, 5c and 5d can be easily adjusted through manipulation of a gap (D) between a top knitting cam and a bottom knitting cams, knitting needles 5a, 5b, 5c and 5d having needle butts 5a', 5b', 5c' and 5d' at different locations so that they are suitable for the knitting cams 6a, 6b, 6c and 6d are operated up and down, and the sinkers 4, 4' and 4" advance and retreat in cooperation with an operating cam 8 provided in the sinker ring 7 together with the sinker cam 3.

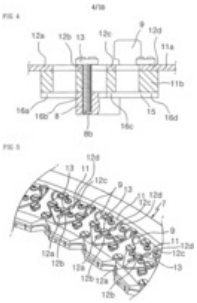


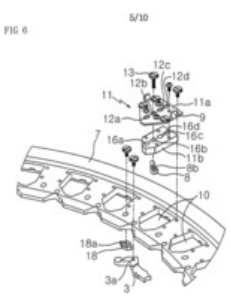


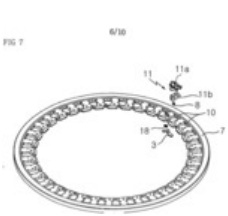


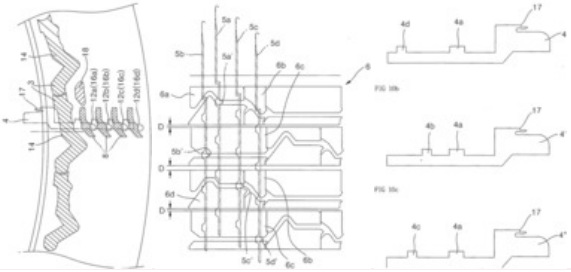






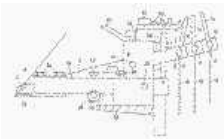


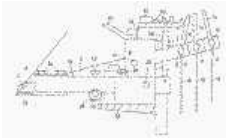


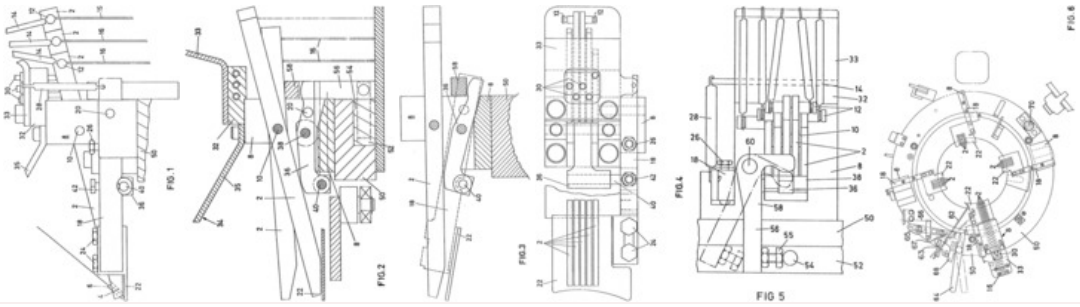


154. Yarn feeder mechanisms | IT8123553 | 1981-08-06 | BENTLEY MOTORS* | 1981-08-18 | 1981-08-18

A yarn feeder mechanism for circular knitting machines has a plurality of feed fingers with yarn feed extremities at the front thereof and movable between a low feed position and a high inactive position, means for selectively lowering the feed fingers, and a latchguard plate which is liftable to a non-obstructing position. The feed fingers are associated with abutment means for engaging the feed fingers to the rear of the respective yarn feed extremities and means are provided for simultaneously lifting the yarn feed extremities and the latchguard plate to the non-obstructing inactive position while maintaining the latchguard plate in spaced relationship to the yarn feed extremities in the non-obstructing position.

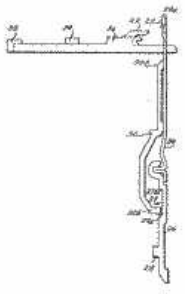


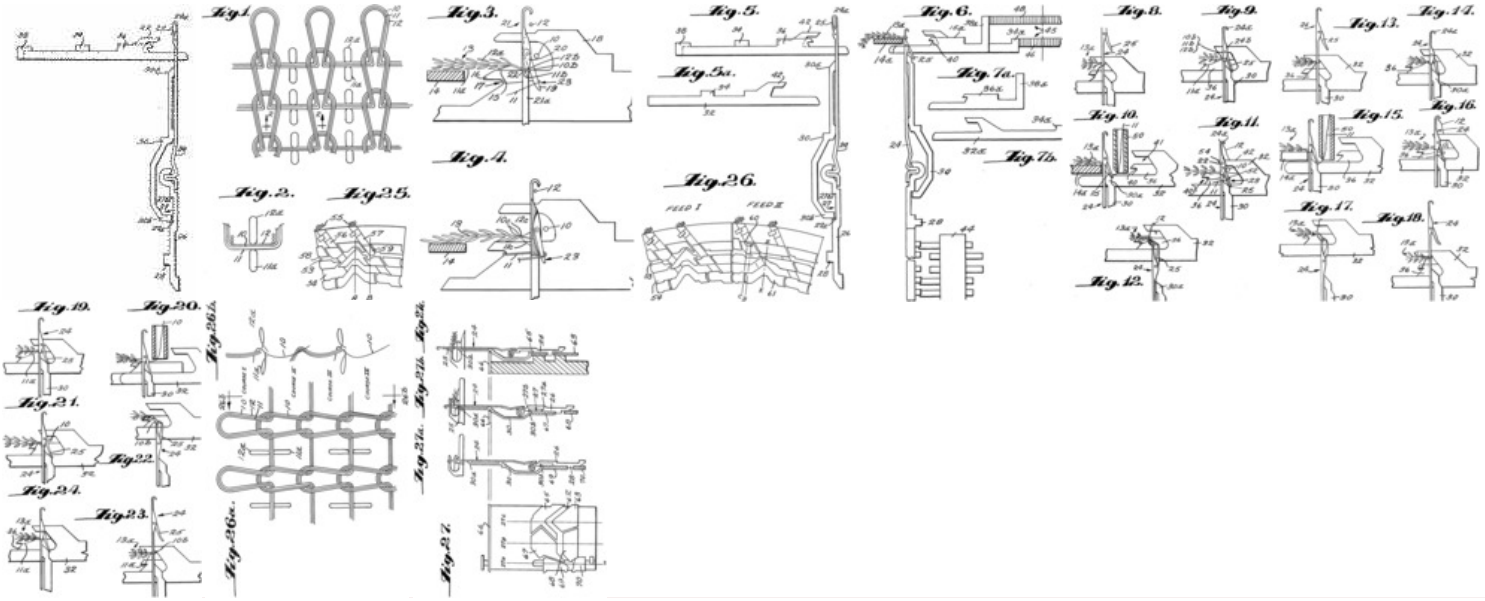




155.	Knitting machines and methods for knitting fabrics having terry loops on both sides thereof	US3977216	1975-04-21	JUMBERCA JUMBERCA S A* LOMBARDI V	1976-08-31	1976-08-31

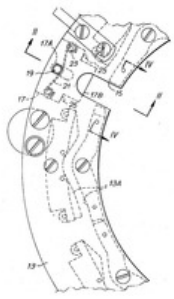
The invention comprises an improved apparatus and method for producing knit fabrics having terry loops on both the technical front and technical back sides of a ground fabric in which the terry loops are interconnected or knitted jointly with the ground yarn into the base fabric and are thus securely held therein. Novel needle latch arresting elements and improved sinker designs eliminate severing of previously formed loops incorporated in the ground fabric.

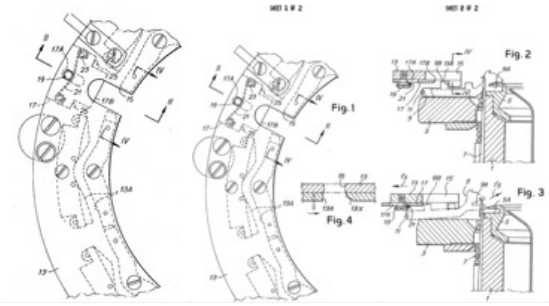




156.	Sinker cap with access slot	US3828584	1972-08-08	BILLI*	1974-08-13	1974-08-13

A radially elongated access slot extends vertically through an otherwise conventional sinker cap to permit easy withdrawal and replacement of damaged sinkers positioned under the slot without disassembly of machine elements. A retainer plate, resiliently urged in a centripetal direction and slidably attached to the underside of the sinker cap, extends into the area beneath the access slot and provides a stop means limiting centrifugal movement of sinkers and thus prevents inadvertent removal or displacement of sinkers during operation of the machine.

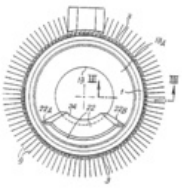


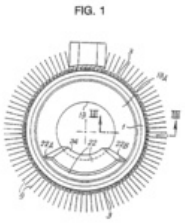


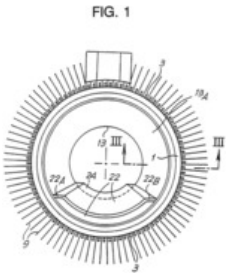
157.	Method and mechanism for closing the toe at the start of the process of making a stocking or sock, in a circular knitting machine	ITFI960087	1996-04-29	CONTI P GOLDEN LADY* GOLDEN LADY JESI GOLDEN LEJDI	1996-04-29	1996-04-29

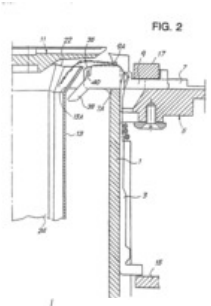
The fabric (T) for the toe pouch is first formed by the needles (1) of a first semicircle (A), and then, in order to transfer the initial free edge (T1) of said pouch (T) to the needles of the complementary arc and thus to start the tubular fabric, a region of concentrated suction of air is created by means of a mouth (22) extending around the inside of a portion of the needle circle in order to capture said free edge of the pouch in transit; next, by means of a centrifugal movement of sinkers each provided with a spike, said free edge (T1) is moved progressively out beyond the circle of the needles, which rise and pass through the fabric (T) around said initial edge (T1).

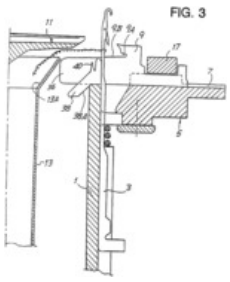
FIG. 1

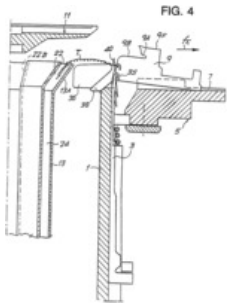


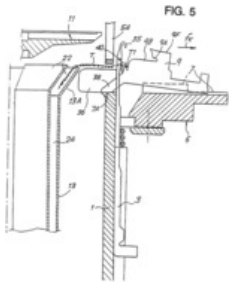


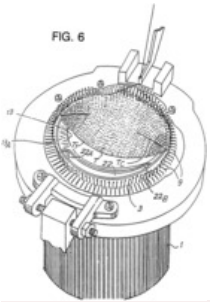


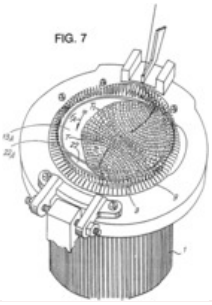


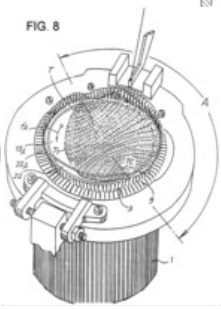


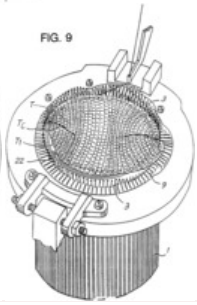






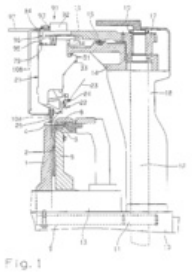


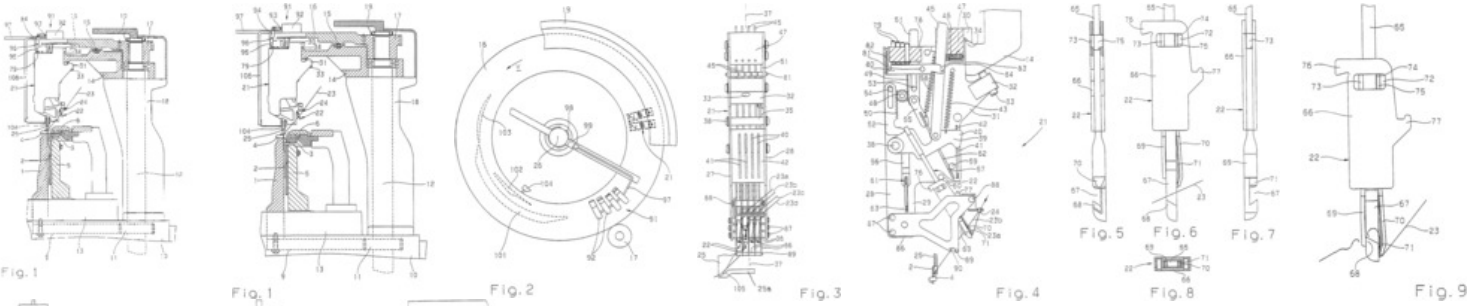


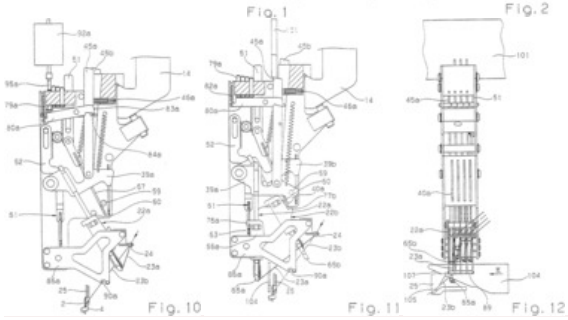


158.	Circular knitting machine with a yarn changer	ITMI960597	1995-03-31	SIPRA PATENT BETEILIGUNG* SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MB SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH SPIRA PATENTENTWIKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH ALBSTADT	1996-03-27	1996-03-27

The invention relates to a yarn changer for knitting machines, with swinging yarn fingers (22c, 22d), which comprise finger bodies and guide bodies (66c, 66d) having cutting and clamping elements (69, 71) slidable on the finger bodies, and with an opener (121) and closer (122) both associated with all yarn fingers in common. In order to reduce the number of moving parts and the noise occurring in operation of the yarn changer, the opener (121) and closer (122) are in such operative connection through a reverse-coupling mechanism (114-120) that they can be actuated in common by an associated cam track (102) acting on a control member (114). The control member (114) is preferably only in the working range of the cam track (102) when a yarn change is to be effected. The invention moreover concerns a knitting machine equipped with the yarn changer, especially a rib circular knitting machine, in which a yarn catcher cooperating with the yarn changer is built into the dial.

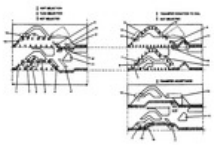

Fig. 1

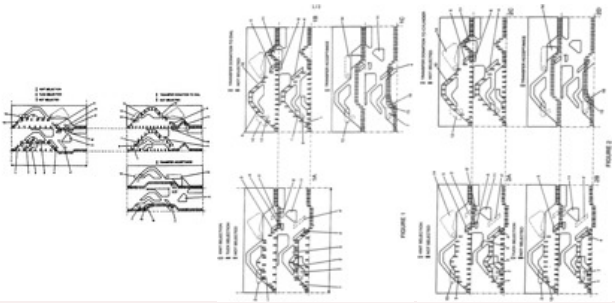

Fig. 1 Fig. 1 Fig. 2 Fig. 3 Fig. 4 Fig. 5 Fig. 6 Fig. 7 Fig. 8 Fig. 9


Fig. 10 Fig. 11 Fig. 12

159.	Cam system for a circular knitting machine	GB9506423	1995-03-28	MONK DUBIED*	1995-05-17	1995-05-17

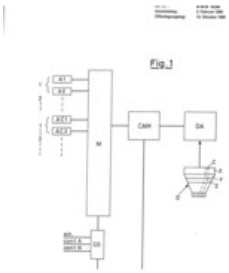
A universal cam system for the cylinder or dial of a circular knitting machine is in effect a superimposition of knitting and selecting stations to provide, at a single station of a knitting machine, selection betwween the various knitting movements of the needles and between loop transfer movements in both directions (cylinder to dial as well as dial to cylinder). The plural fonctions of the cam system are achieved by means of a gate cam (7) for moving needles that have been individually selected to knit or tuck from the knitting and tucking needle paths into a loop transfer donation needle path; a selectively engageable raising cam (16) which on selection raises all needles (14) associated with the said raising cam, moveable to a position in which it lowers all needles from the loop transfer acceptance path. The universal cam system permits optimum flexibility of patterning on a cylinder and dial knitting machine, since knitting and loop transfer stations are provided at every single station around the machine.

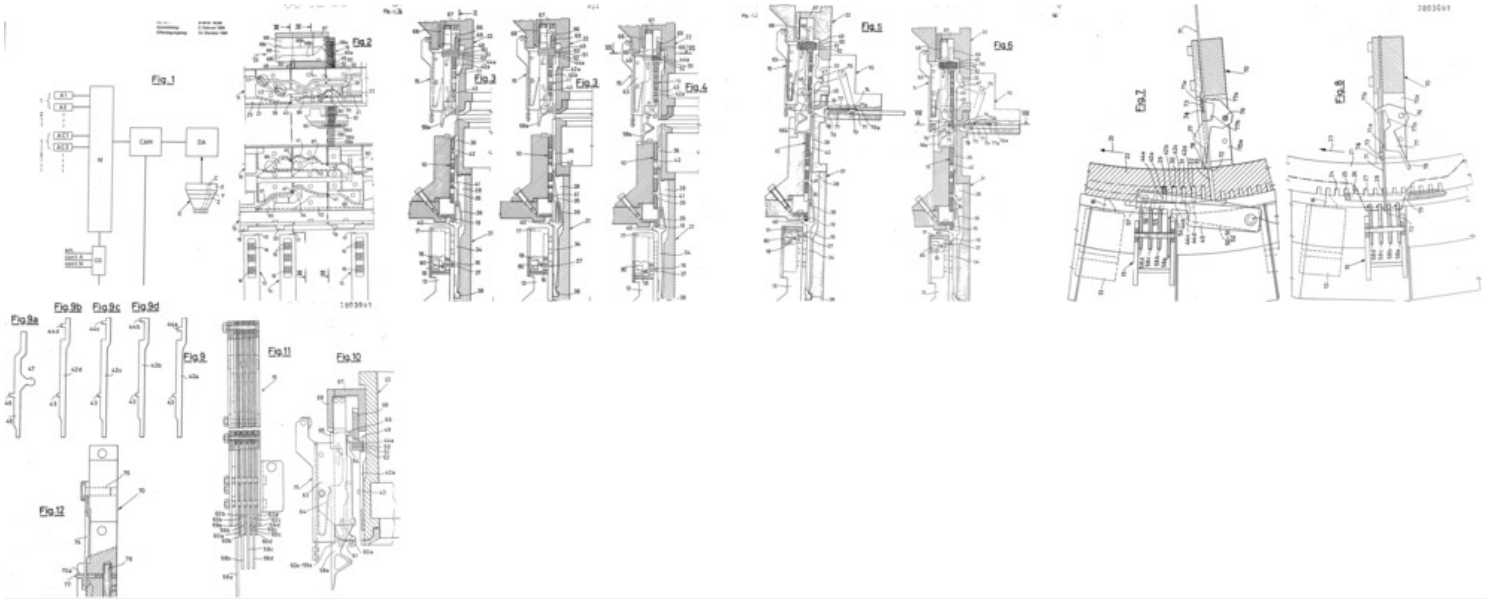




160.	Dialling - and control device for thread changing in knitting machines	IT8719913	1987-03-31	ORICHIO PAORO ORIZIO PAOLO*	1987-03-31	1987-03-31

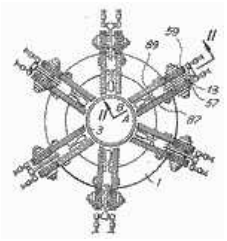
Yarn guides (58a) are selected on a circular or flat knitting machine by respective pushing rods (42a) located in consecutive tricks of a needle-free selvedge region of the needle bed(s) and selectively actuated e.g. by an electromagnetic selection device (13) to act on respective intermediate levers (49 to 52) which in turn displace the yarn guides (58) outwardly against return springs into engagement with a cam (68) for lowering the guides to operative position. In a further trick of the selvedge region is located a pushing rod which pivotally operates a linkage for displacing a hooked member radially inwardly and outwardly and a horizontally pivotable lever cooperates with the hook, the hook serving to introduce a new yarn to the needles while the lever sheds the yarn from the hook. <IMAGE>

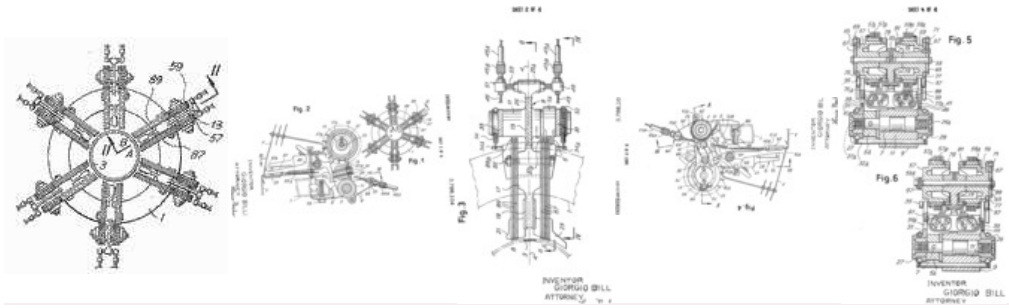




161.	Yarn changer for multi-feed circular knitting machines	DE2111212	1971-01-15	BILLI BILLY & C G & C BILLI FIRENZA*	1971-10-28	1971-10-28

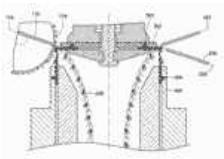
A yarn changer for use upon a multi-feed circular knitting machine to present yarns to the needles of the machine at each of two adjoining feeds thereof, the yarn changer having a set of pivotally mounted yarn guides and a related indexable yarn guide control drum for each of the feeds; the sets of yarn guides being disposed on opposite sides of a central base support and pivotally supported on a first common shaft supported by, and extending outwardly, from both sides of the base, and the yarn guide control drums being disposed on opposite sides of the base and rotatably supported on a second common shaft, supported by, and extending outwardly from, both sides of the base.

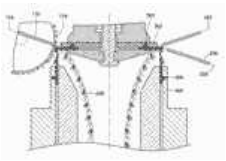


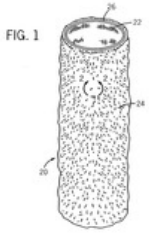


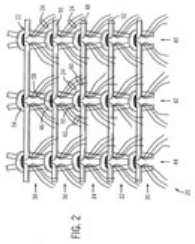
162. Forming a tubular knit fabric for a paint roller cover — CN101407968 — 2008-10-10 — SEAMLESS TECHNOLOGIES SEAMLESS TECHNOLOGY* — 2009-04-15 — 2009-04-15

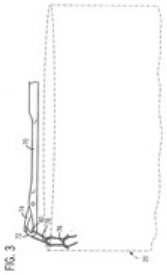
A method and apparatus are provided for forming a tubular-shaped knitted covering for a paint roller, or the like, having a pile extending from an outer surface of the covering, through use of a dial needle knitting arrangement. A cylinder needle knitting arrangement may be utilized in conjunction with the dial needle knitting arrangement for forming a tubular-shaped knitted covering for a paint roller having a pile formed from a combination of sliver and yarn fibers in successive courses of the tubular-shaped knitted covering.

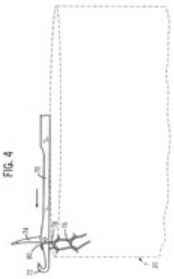


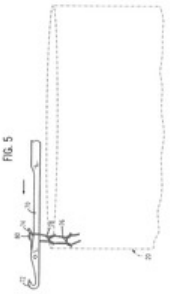


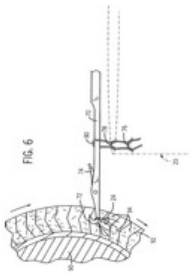


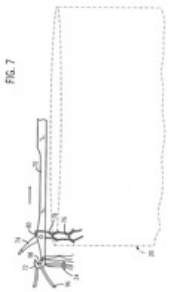


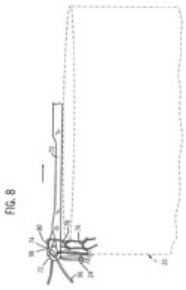


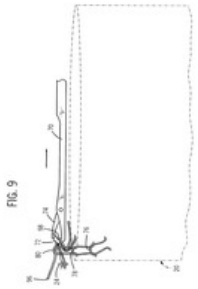






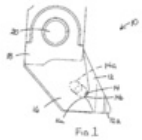




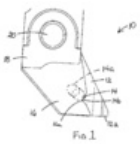


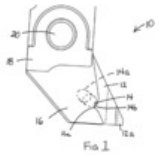
163. Low abrasion yarn carrier for knitting machines — US6101849 — 1998-11-20 — MONARCH KNITTING MACHINERY* — 2000-08-15 — 2000-08-15

A yarn carrier designed to minimize needle wear yet which is relatively easy to thread is described. The yarn carrier includes a yarn guide having an aperture for receiving a yarn and directing it to the needles of a knitting machine, and a flexible, nonmetallic guard plate secured to the guide such that at least a portion of the guard plate overlies at least a portion of the aperture in the guide plate, to reduce the tendency for the hooks of the knitting needles to enter the aperture. The guard plate is desirably made from a polymeric material such as polyurethane, and preferably has a Shore A hardness of about 50-70. The guard plate is desirably deformable so that an operator can readily bend it outwardly from the yarn guide while threading a yarn through the yarn guide aperture, yet when the bending force is released, the guard plate readily resumes its initial undeformed configuration.







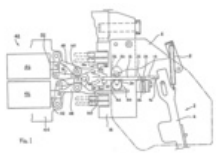


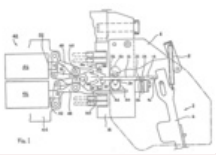




164. Circular knitting machines — GB8607609 — 1986-03-26 — CAMBER INT* — 1986-04-30 — 1986-04-30

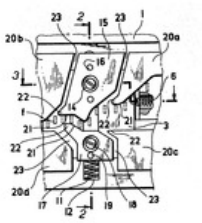
A circular knitting machine is provided with a desired number of striper boxes (2) each containing, in the example given, four striper fingers (6). Selector means (42) rotatable with the cylinder are provided to select one or more of the fingers from one or each box. The selector means comprise a plurality of cam-bearing members (48) which are arranged selectively to pivot under the initiating action of solenoids (46) to an active position in which they are held mechanically and in which a cam face (50) of the appropriate member is caused to project so that it strikes an operating member (12) associated with a striper finger. The member (12) is linked to the finger (6) e.g. by a rack and-pinion arrangement (28, 30, 32, 34). The contact between each of the cam faces (50) with the end portions of the corresponding member (12) takes place in a plane of contact separated from the plane of contact between neighbouring members (12) by an axial and/or radial distance with respect to the machine axis. <IMAGE>

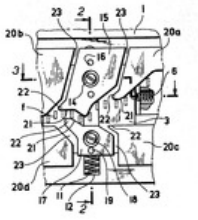


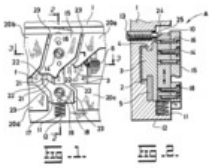


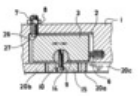
165.	Mechanism for supporting needle cams on knitting machines	US3961499	1973-03-14	VYZK VYVOJOVY USTAV VSEOBE*	1976-06-08	1976-06-08

Mechanism for adjustably supporting needle cams on knitting machines, particularly on circular knitting machines. The mechanism provides simple means for adjusting the cams both in the direction of the knitting stroke of the needles in the slots of the needle cylinder, i.e. in the direction of height, and in the direction transverse to this knitting stroke in the horizontal plane along the periphery of the cam assembly frame plate, that is, in a lateral direction for the lateral adjustment of the cams and thus to eliminate the manufacturing deviations in the angular distribution of the knitting feeds. In accordance with the invention, the cam assembly is provided with a prismatic recess, in which there is mounted a block which is slidable laterally, that is, in a direction tangential to the needle cylinder, such lateral adjustment being provided by a spring and a screw with a conical end or by an eccentric pin. The sliding block is provided with a bore parallel to the axis of the needle cylinder, a pin being slidably mounted in the bore; affixed to the pin are a stitch cam and a stop cam, the pin being adjusted longitudinally of the bore by suitable means such as spring and screw with a conical end or an eccentric pin.



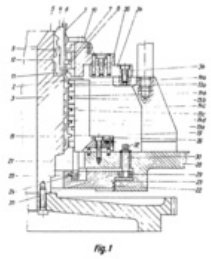


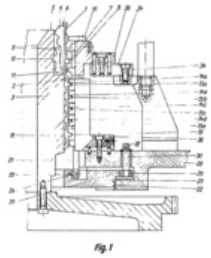




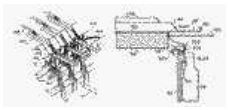
166.	Vielsystemige round cord machine, in particular right/on the left of majority round cord machine	GB8529625	1985-02-06	TEXTIMA VEB*	1986-01-08	1986-01-08

A rib circular knitting machine has sinkers 4 which extend between the needles 1 and which are movable both longitudinally and transversely of the needles such that the distance required for the formation of a stitch is covered partly by the needles and partly by the sinkers. The needles 1 are moved by cams 14a, b, c, d for floating, tucking and knitting. The sinkers 4 are moved by sinker cams 8. In order to provide a central quality adjustment system, one common first mounting 21 is provided at each feed for at least the descending zones of the needle cams which are intended for tucking and/or knitting while a separate second mounting rigidly connected to the sinker cams is provided for the needle cams which are intended for the floating, all the first mountings 21 being movable collectively axially to the needle cylinder, in relation to the sinker cams and/or vice versa. The mountings 21 engage an annular groove 25 in a ring 23 adjustable in height by means of a screw thread 22 and a pinion 29. <IMAGE>
(From GB2170827 A)

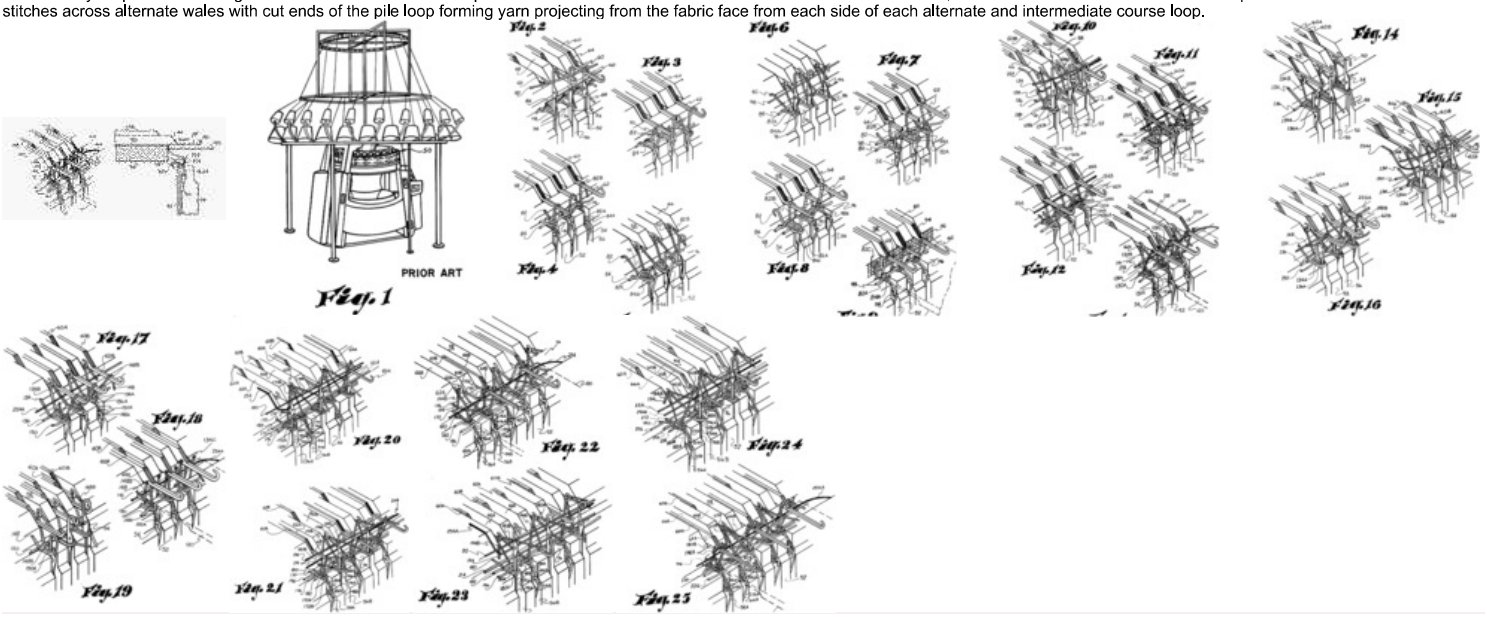




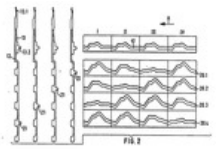
167.	Method of and apparatus for knitting cut-pile fabric	IT7922633	1979-05-04	GUTSCHMIT ALAN GUTSCHMITT A MONARCH KNITTING MACHINERY* MONATEX* YORK P YORK PAUL W	1979-05-11	1979-05-11



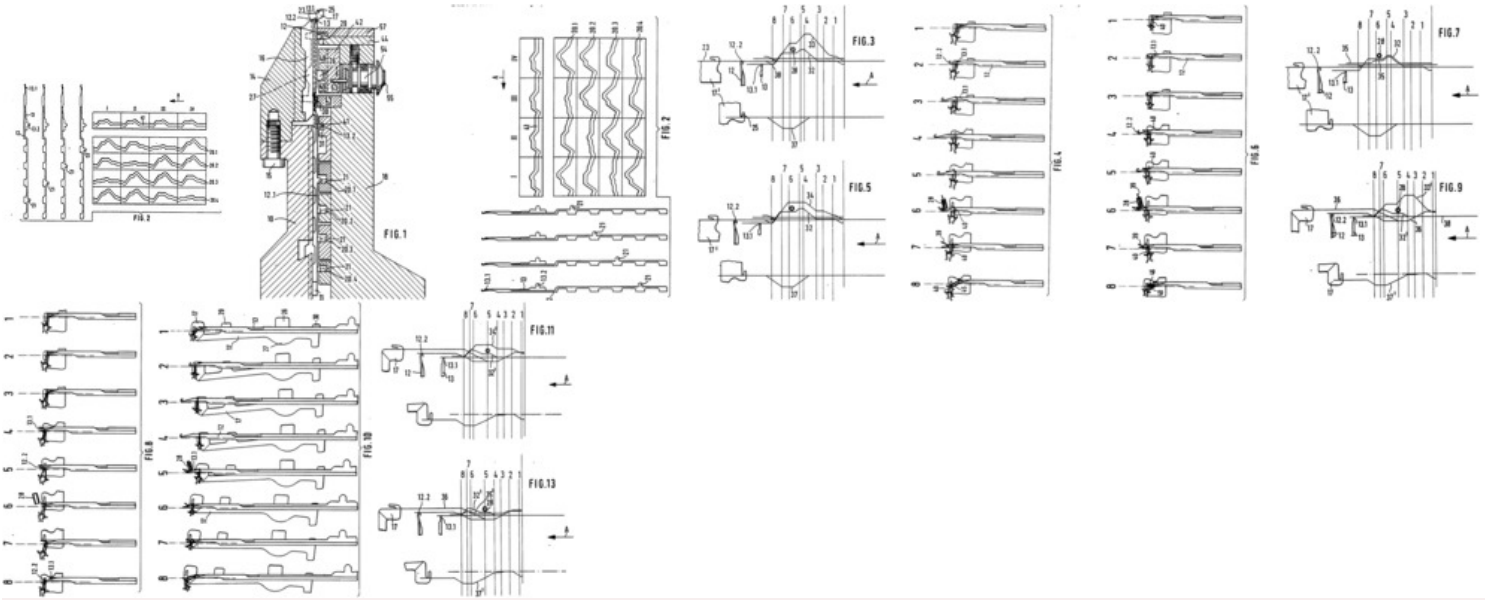
A process and apparatus for producing knitted cut-pile fabric on a conventional circular knitting machine having a cylinder containing conventional latch needles and a dial containing dial elements each having a hook, a yarn cutting edge spaced from the hook and a yarn supporting surface extending therebetween, each dial element being radially movable between adjacent cylinder needles. Body yarn is progressively fed to the cylinder needles and pile yarn is progressively fed to the needles and the dial elements, the needles and dial elements being manipulated to form stitches of body yarn on the needles, to associate the pile yarn in the stitches and form pile loops on the dial elements, and to cast-off the needles the associated stitches and pile yarn to anchor the pile yarn in the stitches. The pile loops are retained and distended on the dial elements with their hooks and, subsequent to the casting off of the associated stitches and pile yarn, the dial elements are manipulated to advance their cutting edges against the retained pile loops, thereby cutting the pile loops to form cut-pile ends. A presser bar is provided for clamping the retained pile loops against the outer circumferential surface of the dial during the cutting thereof by the dial elements. A guide wire is also provided to guide the cut pile ends progressively radially inwardly of the cylinder after the cutting thereof. A fabric may be produced having alternate courses formed in loops in alternate wales and float stitches across intermediate wales, and intermediate courses formed in loops in intermediate wales and float stitches across alternate wales with cut ends of the pile loop forming yarn projecting from the fabric face from each side of each alternate and intermediate course loop.



168.	Circular knitting machine with compound needles.	EP0302286	1988-06-23	JIIPURA PATENTOENTOITSUKURUNGUSU UNTO BETAIRIGUNGUSU SIPRA PATENT BETEILIGUNG* SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH 7470 ALBSTADT SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH EMIL MAYER STRASSE 10 D 7470 ALBSTADT 2 TAILFINGEN	1989-02-08	1989-02-08

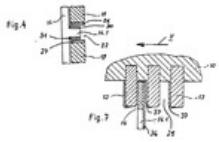


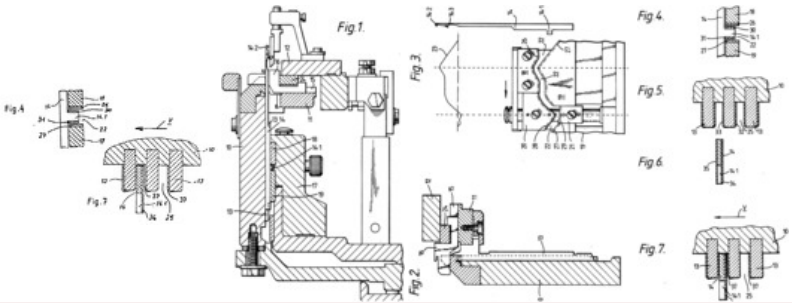
In the circular knitting machine, sliding-tongue needles (12) interacting with sinkers are used, and there are lock cams controlling the needles for knitting, tucking or circular motion, for the sliding tongues (13) of the sliding-tongue needles (12) only a single lock cam (41) causing longitudinal movements of the sliding tongue (13) being needed for all the lock cams for knitting, tucking or circular motion. <IMAGE>



169. Knitting machine and parts having diamond-like carbon coated surfaces — GB8910557 — 1988-05-06 — JIIPURA PATENTOENTOITSUKURUNGUSU UNTO BETAIRIGUNGUSU SIPRA PATENT BETEILIGUNG SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH* SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH 7470 ALBSTADT ZIPRA PATENTENTVIKLYUNGS & B — 1989-06-21 — 1989-06-21

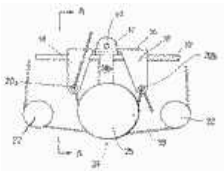
The knitting machine has knitting elements including needles, sinkers, and the like and guide parts for the knitting elements, including cam parts, guide tricks and the like, these groups of parts moving relative to each other and being provided with mutually contacting sliding surfaces or faces. To reduce heating during operation, the need for auxiliary lubricating devices, and to lower power requirements during operation the opposing sliding surface or faces of the moving parts of the knitting machine are at least partially provided with a friction-reducing and wear-resistant coating of diamond-like carbon. This coating is applied by a plasma CVD process (FIG. 3).

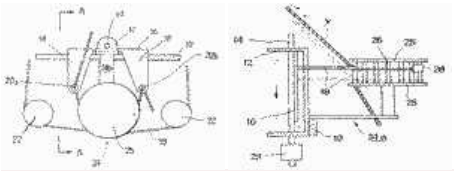




170. Knitting — GB2035389 — 1979-09-25 — CARROTTE F* CARROTTE FREDERICK H FUREDORITSUKU HENRII KYAROTSUTO — 1980-06-18 — 1980-06-18

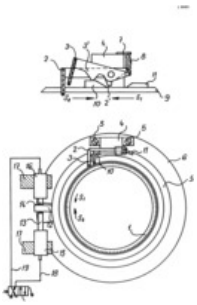
The present invention relates to the knitting an item of fabric on a knitting machine requiring interrupted or intermittent yarn feed, wherein the yarn is positively fed at least during a part of the knitting process and said positive feed is removed prior to a change in the yarn feed while said yarn feed ceases or knitting continues without interruption through said change after said positive feed is removed. <IMAGE>

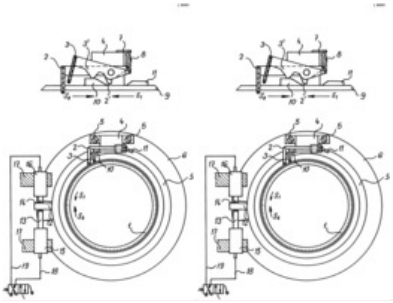




171. Device for circular knitting machine has more than one drops — FR2306297 — 1975-04-03 — ELITEX KONCERN TEXTILNIHO STROJRENSTVI* — 1976-10-29 — 1976-10-29

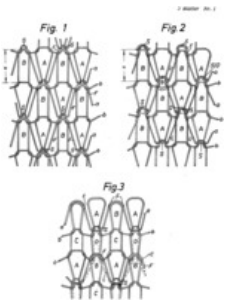
The device comprises a rotatably mounted member in the form of a ring (9), the centre of rotation of which is in the longitudinal axis of a needle cylinder (1). The ring (9) is provided with segments or working projections (10, 11) for the alternate actuation of thread guides (2, 3) of at least one knitting system, this ring (9) being connected mechanically to a rearwardly movable member (13, 14) of a drive mechanism (15, 16, 20). This makes it possible to ensure that the striping of all the knitting systems is actuated centrally by means of a relatively simple device. <IMAGE>
(From GB1520174 A)

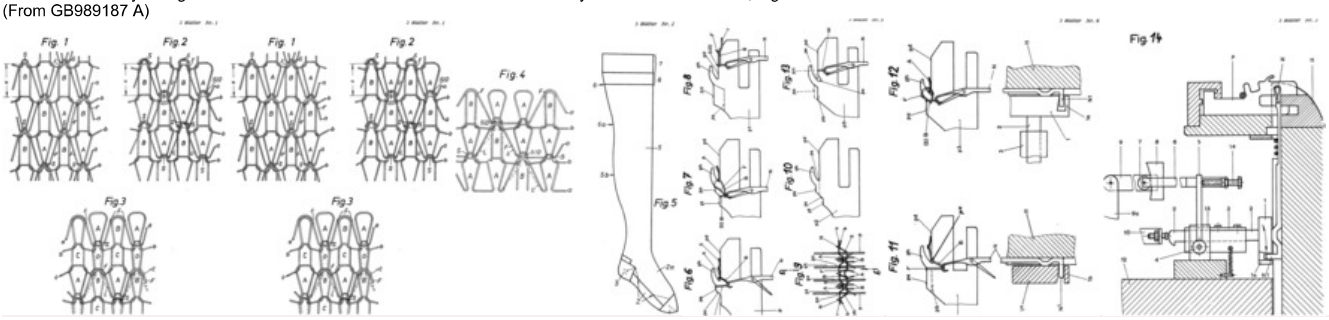




172.	Method and apparatus for making run-resistant knitted fabric	NL274799	1961-06-10	ERHARD M NEBEL ERHARD NEBEL HAMMER GEB NEBEL MAX B NEBEL MAX NEBEL NEBEL ERHARD NEBEL MAX SARA LEE*	1963-01-15	

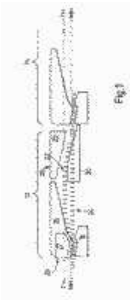
989,187. Knitting. M. NEBEL, and E. NEBEL. Jan. 29, 1962 [Feb. 18, 1961; March 14,1961; June 10,1961; Aug. 8, 1961], No.3360/62. Heading D1C. Ladder resistant fabric, e.g. as shown in Fig. 1 of Specification 989,186 is knitted on a circular knitting machine with latch needles, sinkers and two or more feeder systems by forming a short thread length course (b) of small stitches at one feeder system and at the succeeding system forming a long thread length course (a) of larger stitches and tuck loops, the latter forming tuck stitches with the corresponding small stitches of the previous course so that these small stitches in the course which are contracted into small locking stitches, the needle motions being interchanged after at least every two such courses so that locking stitches appear in successive wales in successive short thread length courses. The machine may be a two or four feeder machine or, to knit the tuck stitch fabric in Fig. 3 of Specification 989,186 a three feeder machine. As shown, the difference in height between the levels Pa and Pt of sinker P, Fig. 1, represents the difference between the loop lengths of the stitches in courses (a) and (b) which are drawn on these two levels. The sinkers may be operated as described in Specifications 925,462 and 925,463. The sinkers are withdrawn after the formation of course (b) so that the sinker loops are in front of the sinker hooks and are reinserted when knitting course (a) and further inserted when knitting course (b). During the formation of course (a) the tuck loops are drawn on the sinkers and the sinker loops of course (b) are drawn on the sinkers for a second time the stitches associated with the tuck loops being extended at the expense of the other stitches in the course which form locking stitches. As shown, Fig. 3, courses (b) and (a) may be drawn on levels Pd and Pa of sinker P1 respectively in front of and behind the sinker hook Pe or alternatively on levels Pk and Pd respectively. In a modification, Fig. 5, (not shown) in sinker P, Fig. 1, level Pt may be below level Pd . Alternatively, or in addition, an adjustable knitting cam may be provided. As shown, knitting and counter cams 1, 1a are carried on a slide 2 mounted in a guide 3 and displaceable by a lever 10 radially towards the cylinder 11 to engage the needle butts. Guide 3 is pivoted on a shaft 4 which carries a lever 5 adjustably connected by a screw 14 to a lever 6 carrying a roller 7 which engages a control cam 8 on a link 9. Link 9 is operated to move cam 8 by the cam which raises and lowers the needle cylinder to vary the overall size of the stitches. The adjustable needle cam may be adjustable to the same level as that at the other feed so that stitches of the same size are produced in all courses e.g. for the welt. When using an adjustable knitting cam, sinkers may be used having only one sinking point behind the sinker hook for both courses and it may lie higher than that in front of the sinker hook which latter may have an extension Px, Fig. 6.
(From GB989187 A)

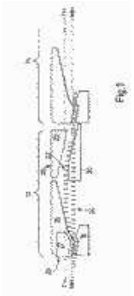




173.	Multi-feed circular knitting machine	EP0541380	1992-11-05	PRETTY POLLY*	1993-05-12	1993-05-12

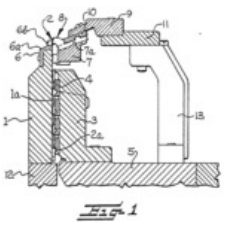
A circular knitting machine having a plurality of knitting stations and a plurality of needles, at least one knitting station having a raising cam (20), a stitch cam (16) and a landing cam (18) co-operating with the stitch cam, at least the landing and/or stitch cam being movably mounted for radial movement relative to the axis of rotation of the machine between a normal operating position and a retracted position, the needles of the knitting machine including a group of needles having relatively long butts (22) and at least one further group having relatively short butts (24), said relatively short butts (24) being such that when said cam is at its retracted position the short butts are able to pass said cam without contact therewith whereas the relatively long butts (22) are such as to be capable of contacting said cam when in its retracted position. <IMAGE>

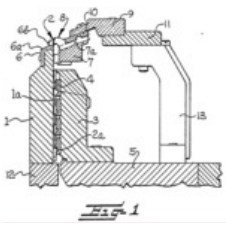




174.	Circular knitting machine for knitting fabric.	EP0351935	1989-04-10	FUKUHARA SEIKI SEISAKUSHO PRECISION FUKUHARA WORKS*	1990-01-24	1990-01-24

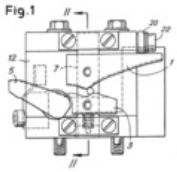
The amount of vertical movement imparted to the needles (1a) during stitch loop formation is reduced by supporting special types of sinkers (8) for movement in a radial direction and along an inwardly and downwardly inclined path of travel (7a) relative to the needles (1a). As the needles (1a) are raised to the latch clearing level the sinkers (8) are moved inwardly and downwardly to lower the level of the stitch forming ledge (8a) thereof so that the amount of vertical upward movement of the needles (1a) is reduced. As the needles (1a) are then lowered to stitch drawing level, the sinkers (8) are simultaneously moved outwardly and upwardly to raise the stitch drawing ledge (8a) so that a portion of the length of the stitch being formed is determined by the amount of downward movement of the needle (1a) and the remaining portion of the length of the stitch being formed is determined by the amount of upward movement of the sinkers (8).

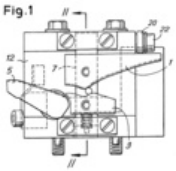




175. Round cord machine for sock goods, in particular for stockings and socks — IT8009432 — 1980-05-14 — BELLTON; BREMATEX* — 1980-05-14 — 1980-05-14

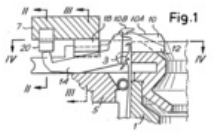
A circular knitting machine is equipped to form areas of fabric using only the needles on an arc of the needle cylinder. The or each cam 1 for stitch formation, under which also the inoperative needles travel, is moved cyclically to be lowered for the formation of rows of stitches by the needles of operative needle arc, while it is raised for the passage past it of the inoperative needles, to prevent repeated tensioning of the stitches held by the inoperative needles. The cam may be controlled by a lever 20 actuated by a fluid cylinder. <IMAGE>
(From GB2078264 A)

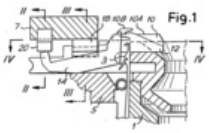




176. Circular knitting machines capable of producing face and reverse stitches — IT7909546 — 1979-09-24 — MATEC*; SAVIO — 1979-09-24 — 1979-09-24

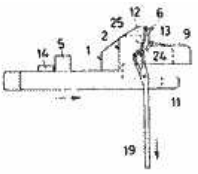
A circular knitting machine capable of producing face and reverse stitches (stocking stitch) with a conventional single needle cylinder comprises, in radial channels alternating with those which receive the standard sinkers 10, pairs of cooperating laminar members, the first one of which 12 forms a plate hook orientated in a direction opposite to the conventional sinker hook and is radially slidable, while the second laminar member is an oscillating hook member 14, able to gather the last stitch loop formed on a base section of the first laminar member when the first member moves radially inwardly to raise the loop and allow the hook of the first member to insert itself under the loop after another displacement of same, firstly radially outwardly and then again radially inwardly. The loop is thus moved behind the needle. <IMAGE>

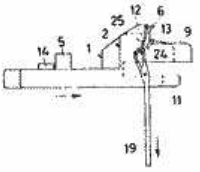




177. Sinker plate for looped pile prodn. in circular knitting - is combined with knock-down sinker plate, to handle both normal and pile yarns — IT7823645 — 1978-12-27 — IRMAC*; IRMAC BRESCIA — 1978-12-27 — 1978-12-27

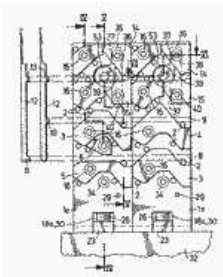
A sinker plate is purposely shaped for the specialised prodn. of pile loops in circular knitted fabric intended for use in socks and footwear. It is joined to a knock-down sinker plate and is fitted into a radial groove a set into the inner and outer crown rings of the needle cylinder bed of the knitting machine. The sinker plate is intended to avoid certain difficulties previously encountered in loop pile fabric knitting, in connection with the maintained separation of the yarns forming pile loops and normal loops. It also avoids the doubling up of sinker plates required for the two kinds of loops.

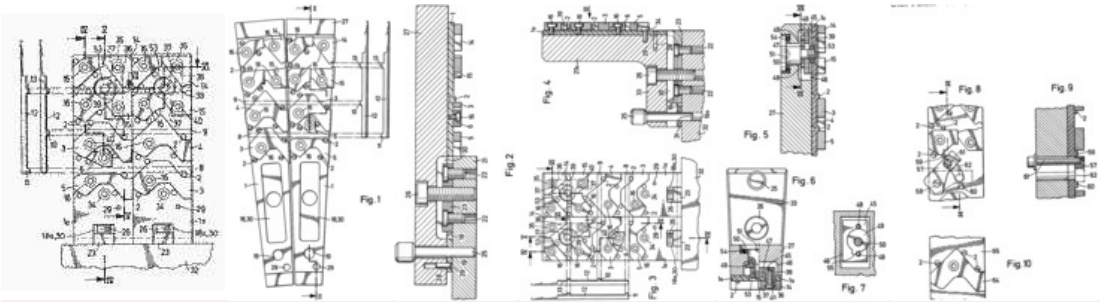




178. Assembly plate for assembling cam parts of a knitting machine — DE2544197 — 1975-10-03 — SULZER MORAT*; SULZER MORAT 7024 FILDERSTADT — 1977-04-21 — 1977-04-21

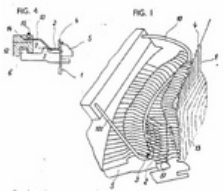
A simple and easily manufactured assembly plate for receiving cam parts of a knitting machine in a predetermined position and in which the assembly plate is easily positioned in a knitting machine. The plate is provided with positioning projections, pins or the like which properly position the cam parts and which are formed by simple stamping procedures or by casting or extruding plastic materials.

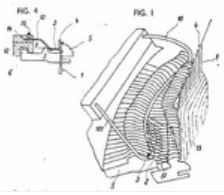




179.	Circular knitting machine	DE2262085	1971-12-22	ELITEX KONCERN TEXTILNIHO STROJRENSTVI*	1973-06-28	1973-06-28

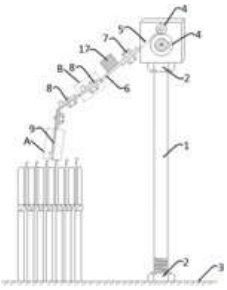
1418857 Knitting machines ELITEX-ZAVODY TEXTILNIHO STROJIRENSTVI GENERALNI REDITELSTVI 15 Dec 1972 [22 Dec 1971] 10148/75 Divided out of 1416725 Heading D1C In a circular knitting machine, the movement of the sinkers during the formation of the stitches is caused by a cam track formed by two spaced resilient wires 10. Wires 10 respectively engage the sinker butt 16 and the end surface 17 of the sinker. The sinkers may be mounted horizontally instead of obliquely as shown.
(From GB1418857 A)

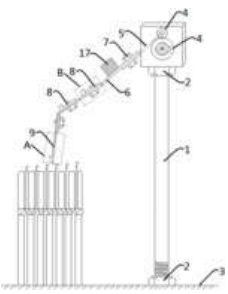


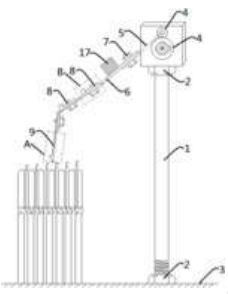


180.	Small-caliber circular knitting machine plaiting device	CN105908354	2016-06-17	NANTONG TEXTILE & SILK INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE* UNIVERSITY SUZHOU*	2016-08-31	2016-08-31

The invention discloses a small-caliber circular knitting machine plaiting device. The small-caliber circular knitting machine plaiting device is characterized by comprising a supporting rod fixed to the working face of a needle cylinder, a height adjusting device installed at the top end of the supporting rod, a rotation adjusting device connected with the height adjusting device, and a plaiting and yarn guiding rod connected with the rotation adjusting device. A plaiting and yarn guiding assembly is installed on the plaiting and yarn guiding rod and comprises at least one yarn guiding triangular support installed on the upper surface of the plaiting and yarn guiding rod, and a yarn guiding nozzle connected with the tail end of the plaiting and yarn guiding rod. Multiple yarn guiding holes arranged in parallel are formed in the head end of the yarn guiding nozzle. The small-caliber circular knitting machine plaiting device has the advantages that the structure is simple, operation is easy, control is stable, it can be achieved that yarn laying positions and angles are adjustable, multiple pieces of yarn (backing yarn and surface yarn) are introduced at the same time to meet the knitting requirements of different plaited fabrics, the application range is wide, and large-scale production and application are convenient.

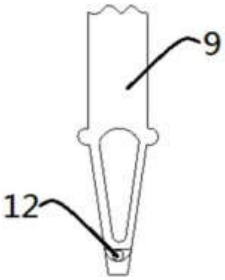


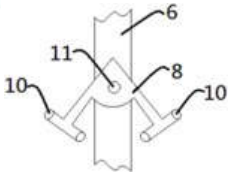






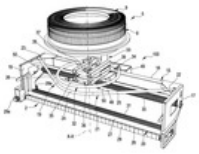


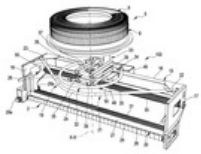


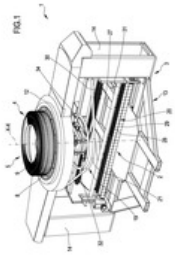


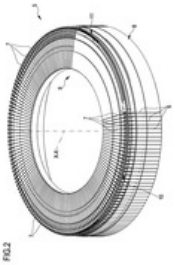
181.	Open-type circular knitting machine for the open and width-variable web production with a knitted fabric take-down and/or collecting assembly	WO2016055904	2015-09-29	SANTONI*	2016-04-14	2016-04-14

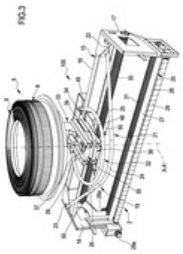
The present invention relates to an open-type knitting machine for the open and width-variable web production with a fabric take-down and/or collecting assembly, comprising: a basement (3); a knitting head (4) mounted onto the basement (4) and comprising: at least a needle-holding element (5) having at least a plurality of needles (6, 7) arranged around a central axis (X-X). A first active needle (6a, 7a) and a last active needle (6b, 7b, 6b', 7b ') of the plurality delimit between them a dead zone (11) of the needle-holding element (5) without needles and/or without active needles, and an operating zone (10) shaped as an arc of circle and provided with active needles. Control means are operatively connected to the active needles so as to selectively actuate these active needles in order to produce a partially tubular knitted fabric. A take-down and/or collecting assembly (2) for the knitted fabric (T) under production is arranged downstream from the knitting head (4) with respect to a feeding direction of said knitted fabric (T) under production, and it is integral with the needle- holding element (5) during the production of the knitted fabric (T). The circular machine (1) further comprises devices (34) for adjusting the angular position of the take-down and/or collecting assembly (2) with respect to the dead zone (11) of the needle-holding element (5) around the central axis (X-X).

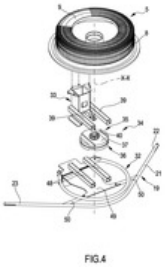


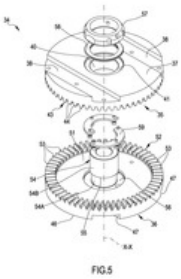


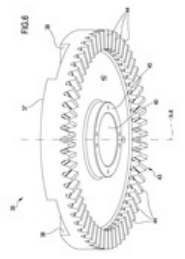


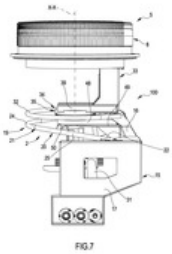


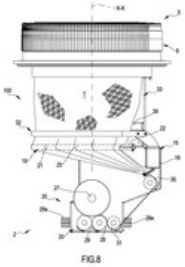


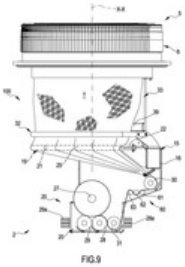

FIG.4


FIG.5


FIG.6

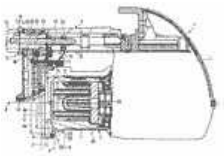

FIG.7

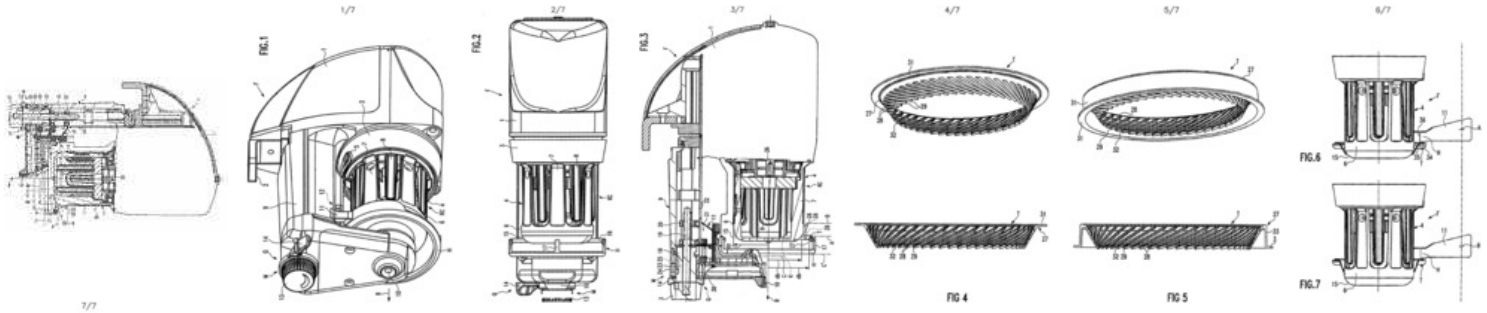

FIG.8

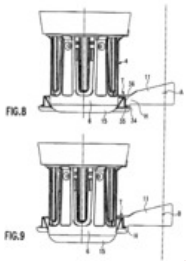

FIG.9

182. Yarn feeding device WO2006032343 2004-09-20 IRO* 2006-03-30 2006-03-30

A yarn feeding device (F) for knitting machines comprises a housing (1), a stationary storage body (4) having a cylindrical front end section (6) and a withdrawal rim (15) tapered in withdrawal direction R, a housing bracket (9) provided alongside the storage body, and a tension ring (T) which is axially adjustable in the housing bracket (9) by means of an adjustment mechanism (M) for co-action with the storage body (4) which co-action influences the yarn tension. The tension ring (T) has an outer ring body (27) and inwardly protruding fingers (28) with free finger ends (29) which follow each other in circumferential direction along a circle (K). The adjustment mechanism (M) is designed with an axial adjustment range for the tension ring (T) within which the tension ring (T) is adjustable at least between an individual yarn tension operative position (A) axially contacting the withdrawal rim (15) and a uniform yarn tension operative position (B) radially contacting the cylindrical front end section (6).

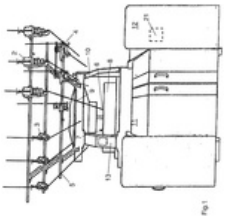


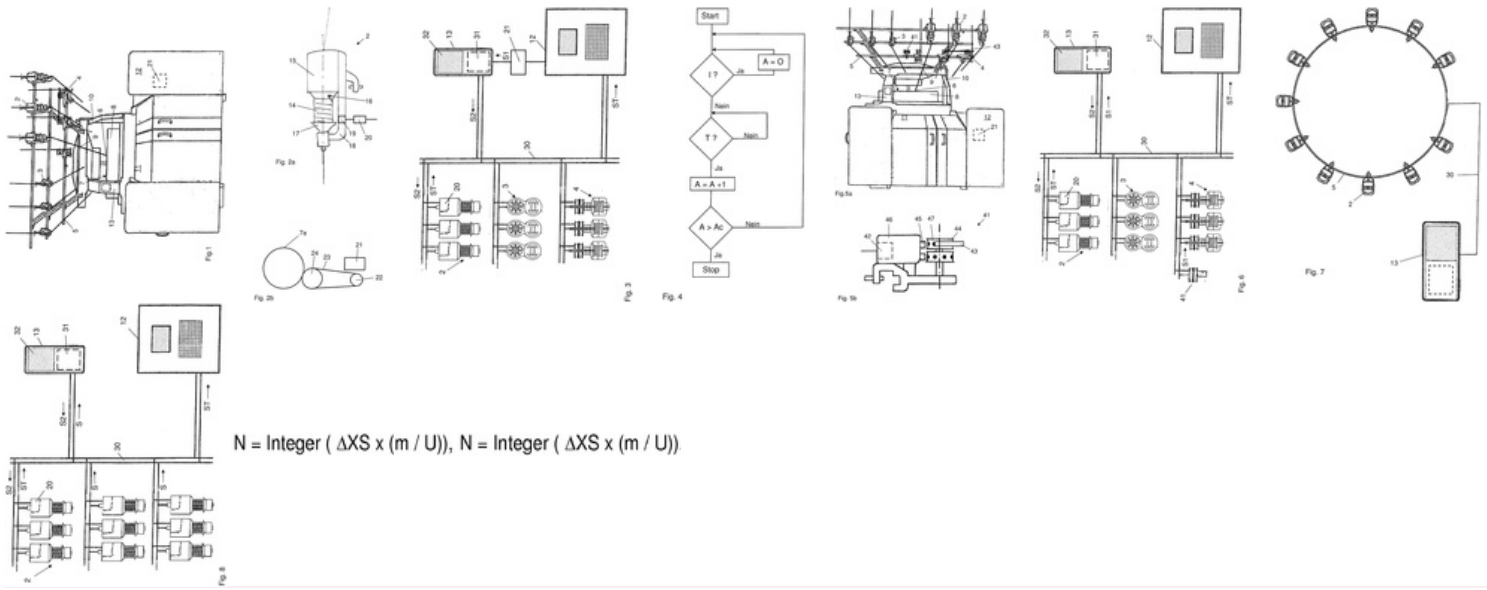




183. Method and device for monitoring the production by a knitting machine DE102013110988 2013-10-02 MEMMINGER IRO* 2015-04-02 2015-04-02

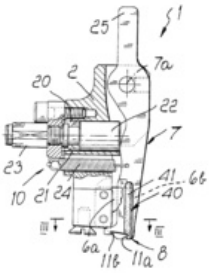
The invention relates to a method and device for monitoring the production of a knitting machine, and the knitting machine; the method for monitoring the production of a knitting machine is provided; wire supply of at least one wire supply device is monitored by a sensor device (19) and a control unit (20); a sensor signal (S) with a measuring pulse (I) for each length unit (delta XF) of a wire supply path is generated by the sensor device (19) in such condition. The sensor signal (S) is evaluated by the control unit (20); in a suitable condition, the control unit (20) is used for generating a stop signal (ST) for the knitting machine; a clock signal (S2) aiming at the control unit (20) is provided by a clock unit; a clock pulse (T) of the clock signal (S2) is matched with the length unit (delta XS) of a knitting path; the length unit (delta XS) of the knitting path is one/Zth of the length unit (delta XF) of the wire supply path (wherein the factor Z is at least 2, preferably 3-10); the sensor signal (S) is evaluated by the control unit (20), and depends on the generation of the clock signal (S2).
(From CN104514078 A)

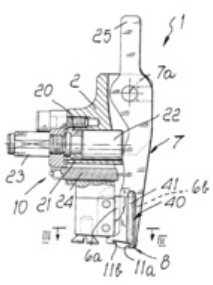


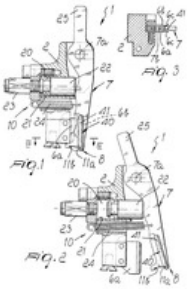


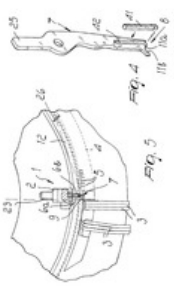
184.	Thread gripping device in circular knitting machines for hosiery or the like	ITMI20012776	2001-12-21	SANTONI* SANTONI ESSÃ© BEAUTY A	2003-06-23	2003-06-23

A device for gripping thread in circular hosiery knitting machines or the like, which comprises a supporting element (2) fixable to the structure of the machine that supports the thread guides (3) proximate to a drop or feed, above the needle cylinder (4) and proximate to the needle work area (5). The supporting element (2) bears at least one elastic lamina element (6a, 6b) and a thread locking lever (7) that is pivoted to the supporting element (2) and can rotate in a scissor-like fashion with respect to the elastic lamina element (6a, 6b) in order to catch the thread with an engagement portion (8) and grip it between the locking lever (7) and the elastic lamina element (6a, 6b). The thread grip portion (8) of the locking lever (7) has two mutually opposite shoulders (11a, 11b) that delimit bilaterally movement of the thread (9) toward or away from the axis of the needle cylinder (4).



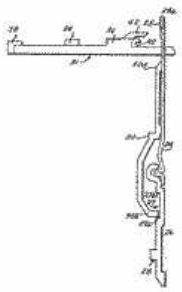


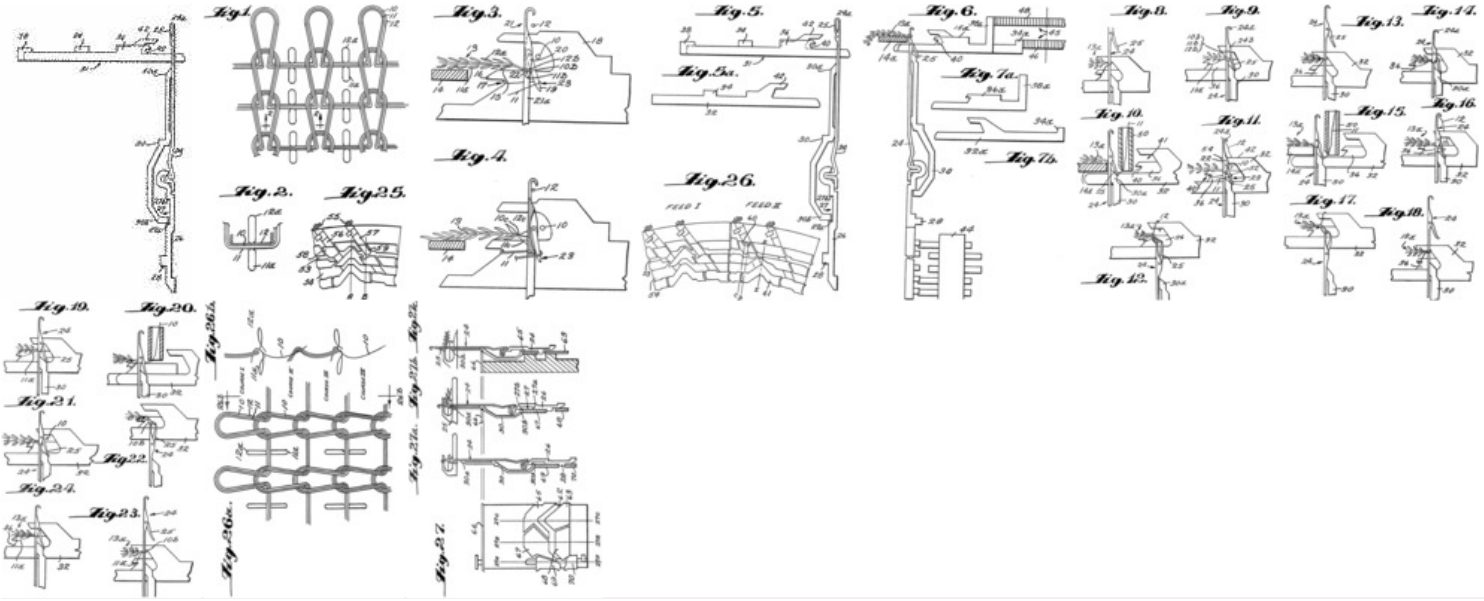




185.	Knitting machine for knitting fabrics having terry loops at least on the technical front face thereof	US4103518	1977-05-13	JUMBERCA S A*	1978-08-01	1978-08-01

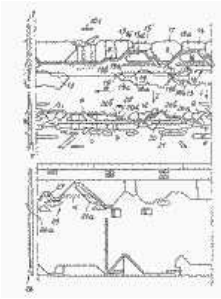
The invention comprises an improved knitting apparatus for producing knit fabrics on which terry loops are provided at least on the technical front face thereof. The terry loops are interconnected or knitted jointly with the ground yarn into the base fabric so that they are securely held therein. Novel sinker elements are used to control the positioning of the fabric as it is knit with the sinker elements serving to initially support the fabric at a level high enough to allow loops to be formed in the front face, with the sinker element thereafter forcing the fabric and just formed loops down into the sinker throat away from any possible scissoring action between the needle cheeks and the cooperating latch.

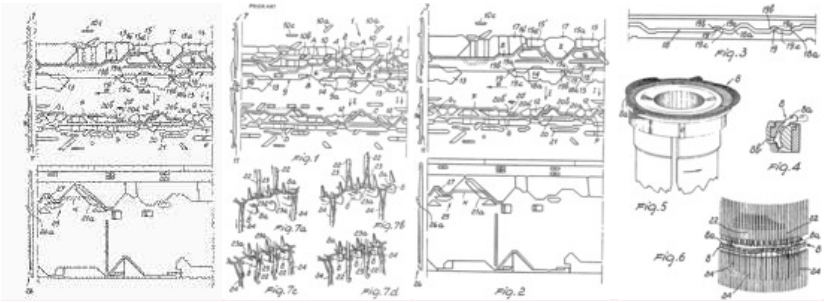




186.	Knitting method and machine	DE2816740	1977-04-21	COSTRUZIONI MECCANICHE LONATI BRESCIA FIGLI ETTORE FAUSTO TIBERIO S LONATI COST MECC*	1978-11-09	1978-11-09

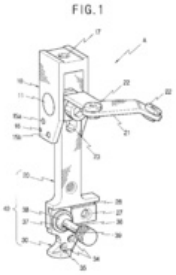
A method for knitting a garment on a double-cylinder circular knitting machine, comprising the steps of withdrawing the stitch sinkers firstly with only the yarn taken up by the lower cylinder needles, subsequently lowering the upper cylinder needles to pick up the yarn while causing the stitch sinkers to outwardly project and to pick up the yarn taken by the upper cylinder needles, and raising the lower cylinder needles only after the sinkers have been withdrawn. There is also disclosed a double-cylinder circular knitting machine in which the cams for controlling the sinkers have a notch in a position substantially vertically below the lowering cam which controls lowering of the upper cylinder needles to take up the yarn, the notch being arranged before the raising cam controlling raising of the lower cylinder needles for taking up the yarn. Upstream of the lowering cam there is also provided in the upper cam box a pair of cams for maintaining the upper cylinder needles at a level corresponding to that at which the previously formed loop is discharged.

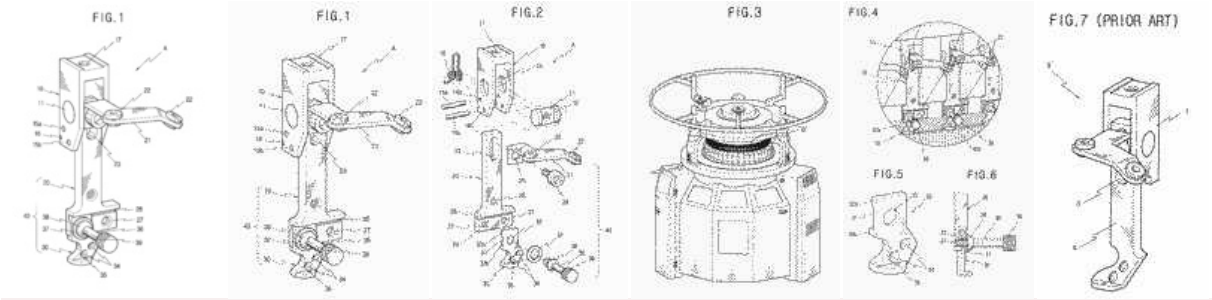




187.	Knitting machine yarn guiding device and its method of manufacture	ITMI992357	1998-11-13	KEUMYONG MACHINERY* KUM YONG MACHINERY SANG HO CERAMIC	1999-11-11	1999-11-11

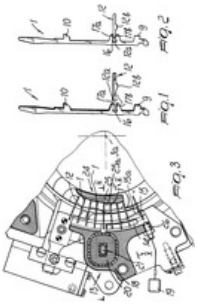
A yarn guiding device for a knitting machine to guide a yarn unreeled from a creel located above the knitting machine before feeding the yarn to a knitting needle. The device includes a rectangular main body including a supporting member with a slot and connecting holes, and a yarn guiding member with a U-shaped recess for connection to the supporting member and yarn paths. A bracket joins the main body through a connecting member to allow the main body to pivot forward and is disposed in the knitting section of the knitting machine. The yarn guiding member is molded from 80 to 95 by volume of zirconium oxide and 5 to 20 by volume of yttrium oxide.

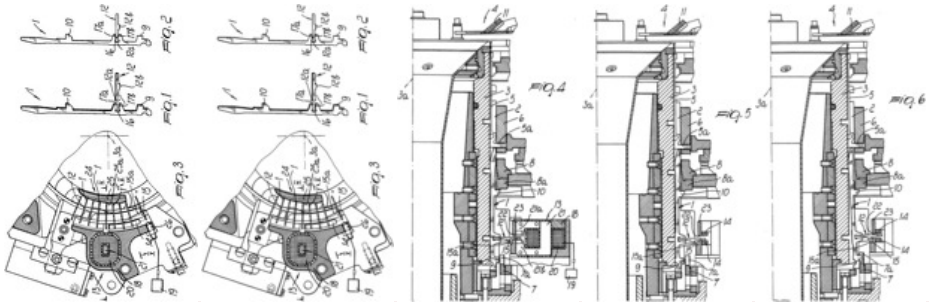




188.	Needle selection device for circular knitting machines for manufacturing socks, stockings or the like	ITMI931711	1993-07-29	I M I M DI LONATI CAV FRANCESCO & C SOCIETA ACCOMANDITA SEMPLICE LONATI* SAFRAN ELECTRONICS & DEFENSE SFIM	1993-07-29	1993-07-29

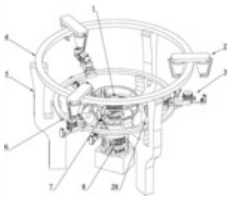
The needle selection device for circular knitting machines has multiple selectors arranged in the axial grooves formed in the skirt of the needle cylinder, each selector being arranged below a needle and oscillatable in a radial plane of the needle cylinder from an active position, in which it protrudes radially from its groove with a butt, for the engagement of the butt with cams for actuating the selectors arranged around the needle cylinder to move the selectors along their groove in the needle cylinder so as to activate the overlying needle, to an inactive position, in which the selector is sunk in its groove in the needle cylinder so that it does not interfere with the selector actuation cams. The device has selector extraction means to transfer the selectors from the inactive position to the active position and selection means to transfer the selectors from the active position to the inactive position or to keep them in the active position. Each selector is provided with a selection element protruding radially from the grooves of the needle cylinder and oscillatable in the plane of arrangement of its selector. The selection element is made of a material that can be magnetized, and an electromagnet is provided for magnetizing the selection element and magnetic means interact with the selection element after its magnetization to make it oscillate into an idle position, in which the selection element engages a selector sinker cam which laterally faces the needle cylinder, or into an active position, wherein the selection element does not interfere with the sinker cam to keep its selector in the active position. <IMAGE>

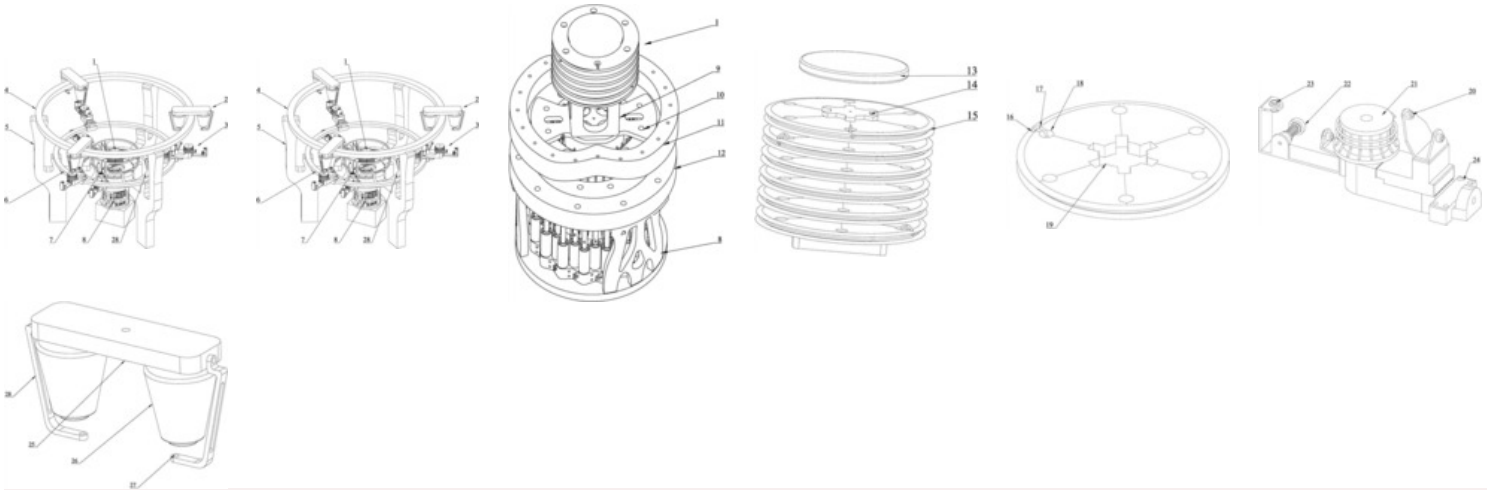




189.	Multi-line yarn delivery method and device of magnetic suspension circular knitting machine	CN108301112	2017-12-20	WUHAN TEXTILE UNIVERSITY*	2018-07-20	2018-07-20

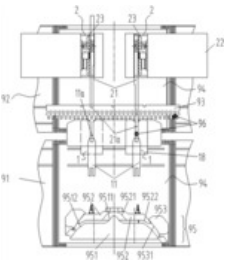
The invention discloses a multi-line yarn delivery method and device of a magnetic suspension circular knitting machine. The device is improvement of a yarn delivery device in the invention patent 'double-layer magnetic suspension direct-drive knitting jacquard knitted fabric circular knitting machine' (ZL2001510515739.0). The multi-line yarn delivery method device comprises a yarn paying-off mechanism, yarn delivery device mechanisms and a yarn divider mechanism, yarn is separated out of yarn reels, is taken up by yarn delivery devices, and is delivered to a weaving mechanism through a yarn divider, the paying-off mechanism gently pays the yarn twined on the yarn reels downwards to be supplied for twining, the yarn divider mechanisms temporarily twine the yarn which is paid off from the yarn reel paying-off mechanism, the effects of buffering paying off, tensioning yarn and guiding yarn are achieved, and the yarn divider mechanism divides the yarn delivered by the six yarn delivery devices, and delivers the yarn to yarn hooking positions of the magnetic suspension circular knitting machine to be woven; three-level yarn delivery mechanisms are distributed in vertical gradients in the vertical direction, and are horizontally spaced in the radial direction. By means of the multi-line yarn delivery method and device of the magnetic suspension circular knitting machine, the yarn delivery efficiency and the production efficiency of the circular knitting machine are greatly improved; meanwhile, the complicated control problems also become simple, and the mechanism of the circularknitting machine is simple and compact.

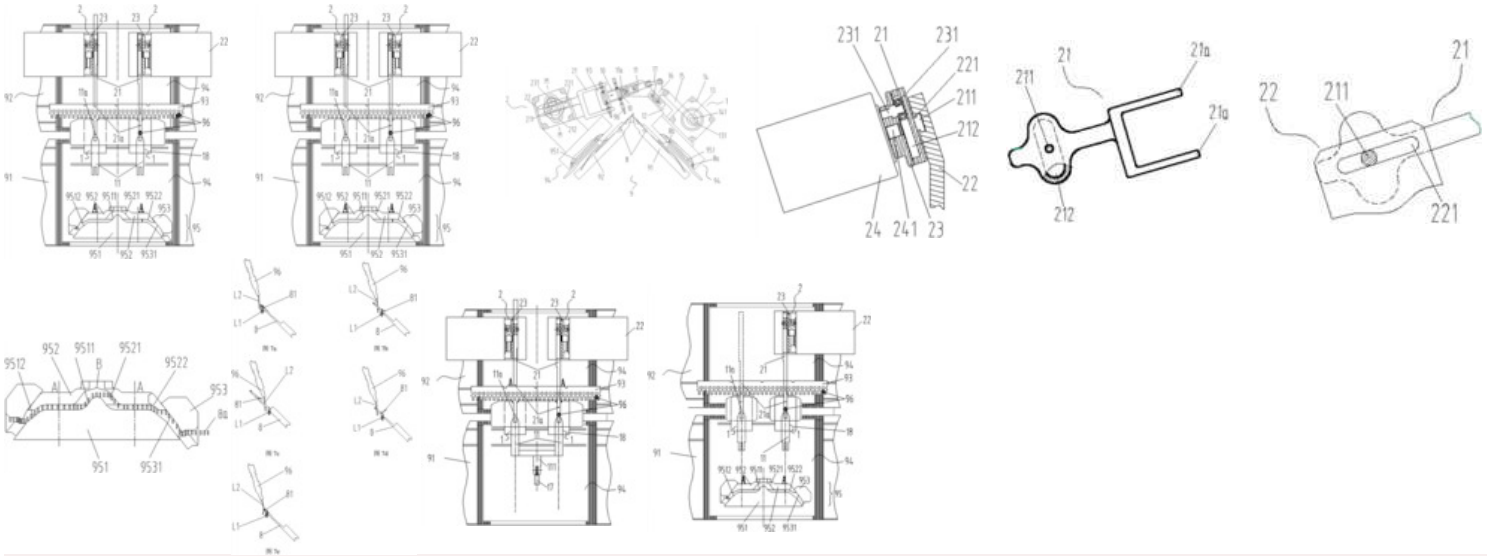




190. Yarn feeding device of intarsia horizontal braider | CN107130363 | 2017-05-23 | FENG, JIALIN | 2017-09-05 | 2017-09-05

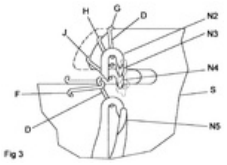
The invention relates to an intarsia yarn feeding device. The intarsia yarn feeding device comprises a yarn carrier bringing and delivering mechanism and a yarn carrier loading mechanism, wherein the yarn carrier loading mechanism is provided with a yarn carrier push-in end; the yarn carrier bringing and delivering mechanism is provided with a yarn carrier push-out end; the yarn carrier push-in end and the yarn carrier push-out end are positioned in the same horizontal position of a head, so as to form yarn carrier exchange positions; a knitting cam arranged in the head adopts a single-peak knitting cam; the yarn carrier exchange positions are arranged on the two symmetrical sides of a coil slippage position of the knitting cam; yarn carrier push-in ends and yarn carrier push-out ends are arranged in both the yarn carrier exchange positions on the two sides; or a yarn carrier push-in ends and a yarn carrier push-out end are arranged in one of the yarn carrier exchange positions on the two sides; the yarn carrier push-in ends and the yarn carrier push-out end can move to a yarn carrier exchange position on the other side relatively symmetrical to the coil slippage position of the knitting cam. The intarsia yarn feeding device has the advantages that the intarsia loop braided pitch is shortened, so that the stretched time of a braided yarn is shortened, the yarn cannot be broken, moreover, the knitting efficiency is greatly improved.

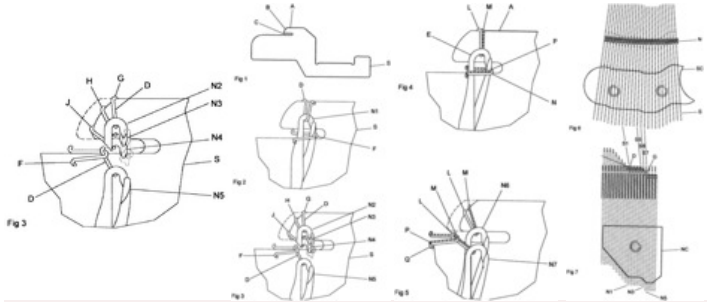




191. Sinkers for knitting machines | GB0416769 | 2004-07-28 | SHELTON WILLIAM & A* | 2004-09-01 | 2004-09-01

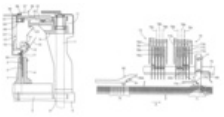
In circular knitting machines a plurality of new loops (G,H,J) are drawn over the upper edge of modified sinker knibs avoiding contact with old loops (F) to measure the required length of yarn in each loop. Sinkers retract to release loops off the upper edge as associated needles descend, causing each loop to slide around the inclined profile of the sinker knib, to retain the pre measured length when a new loop is mehed with an old loop. The method is particularly suitable for knitting plated fabrics in that the correct juxtaposition of each yarn is preserved by the method described. Input yarn is fed at a relatively high tension to create a positive grip on the plurality of new loops preventing peaks of tension from reaching the knock over point.

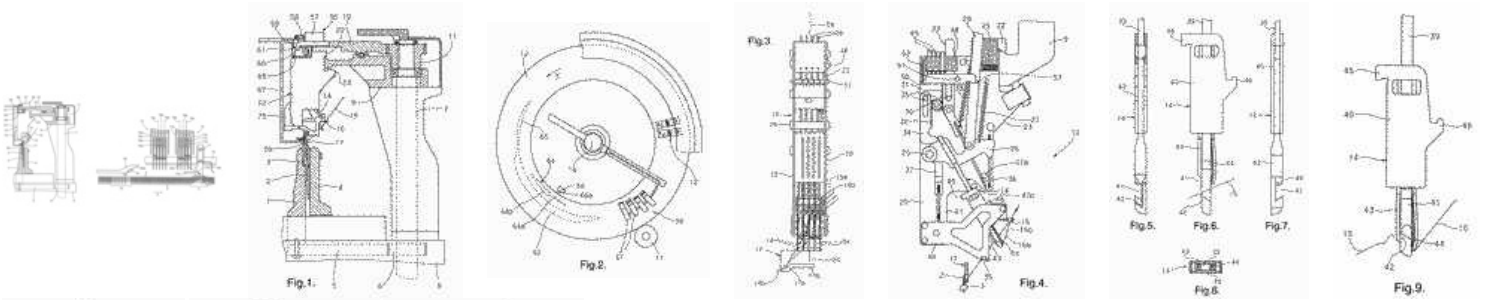


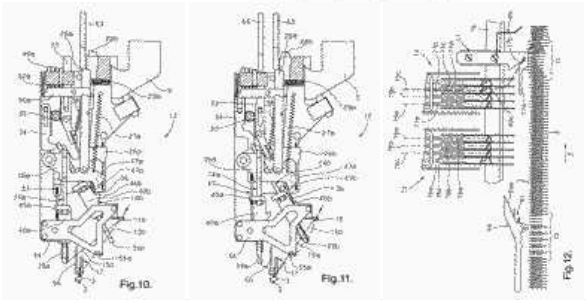


192. Knitting machine with at least one striping device EP1612311 2004-06-30 SIPRA PATENT BETEILIGUNG* SIPRA PATENT DEVELOPMENT COOPERATION SIPRA PATENTENTWICKLUNGS & BETEILIGUNGSGESELLSCHAFT MBH 2006-01-04 2006-01-04

The circular knitter has at least one carrier with the knitting needles (2,3) and a lock with at least one knitting point (71) to move selected needles into a yarn catch position. A yarn change assembly feeds selected yarns to the activated needles with at least two yarn change units (73,74) to lay selected yarns (78,79) at the needles in the knitting position.

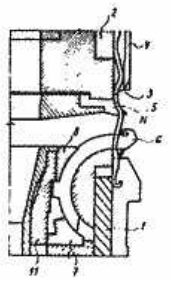


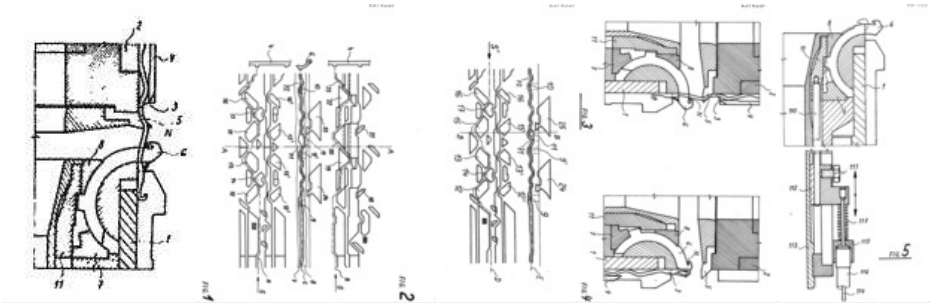




193. Double-cylinder circular knitting machine IT8619659 1985-03-08 ELITEX KONCERN TEXTILNIHO STROJIRENSTVI REICHENBERG LIBEREC CS ELITEX KONCERN TEXTILNIHO STROJRENSTVI* 1986-03-07 1986-03-07

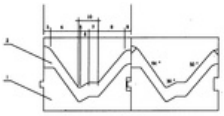
a. Double-cylinder circular knitting machine. b. Machine, characterised by a movable sinker 6 cam 11 mounted level with the projecting edge of the needle-lifting cam 3 of the upper needle cylinder 2, in order to overturn the stitch formed during the return movement in reverse of the needle cylinders 1, 2. c. The invention relates to a double-cylinder circular knitting machine. <IMAGE>

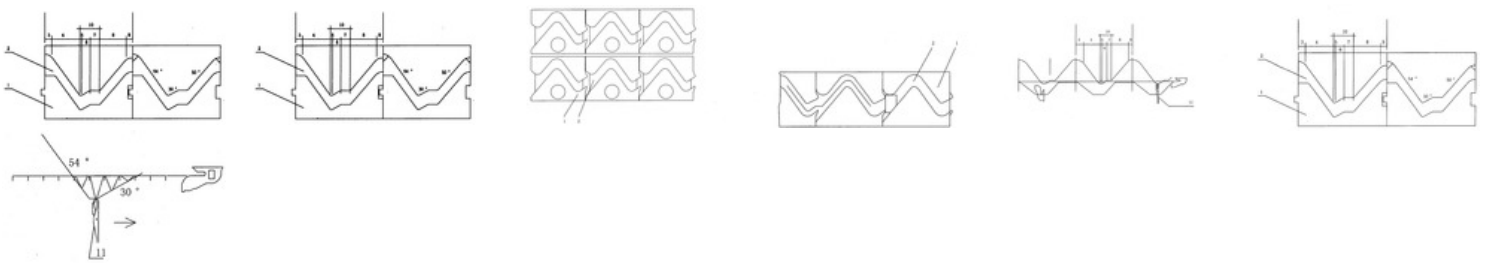




194. Knitting cam for circular knitting machine CN202039183 2011-03-31 Li Wei 2011-11-16 2011-11-16

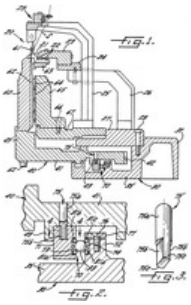
The utility model relates to a main knitting part used for a circular knitting machine, in particular to a knitting cam for a circular knitting machine, which structurally comprises a cam body (1); a coil molding area section (10) is arranged at the bottom of a needle bell groove (2) of the cam body (1); the needle bell groove (2) in front of the coil molding area section (10) is internally provided with a narrowing arc section (3) and a descending kinking section (4); and the narrowing arc section (3), the descending kinking section (4) and the coil molding area section (10) are connected in sequence according to the direction of a knitting moving track. Compared with the prior art, the knitting cam has the advantages of reasonable design, simple structure, low processing cost and little influence on a knitted product.

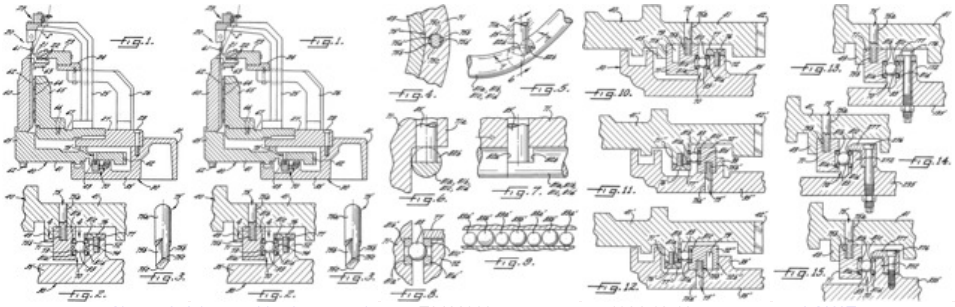




195. Circular knitting machine and bearing assembly for same — EP0647732 — 1993-10-12 — FUKUHARA SEIKI SEISAKUSHO; HUKUHARA SEIKI SEISAKUJO; PRECISION FUKUHARA WORKS* — 1995-04-12 — 1995-04-12

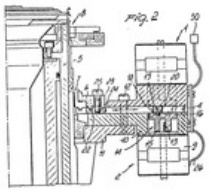
A circular knitting machine is provided that has a bed member and a needle cylinder including a cylinder base rotatably mounted to the bed member. The knitting machine also has a bearing assembly positioned between the bed member and the cylinder base for rotatable mounting of the bed member to the cylinder base. In alternate embodiments, the bearing assembly preferably includes a first race (71) slidably connected to either the cylinder base or the bed member and a second race (72) connected to either the cylinder base or the bed member and positioned adjacent and spaced-apart from the first race (71). First and second tracks are respectively mounted to the first and second races, and bearings are positionally supported by and between the first and second tracks so that the cylinder base freely rotates about the bed member. A thermal-expansion compensator is preferably integrally formed with either the cylinder base or the bed member and is positioned closely adjacent the corresponding race respectively connected to either the cylinder base or the bed member. The compensator is adapted for compensating for thermal expansion in the cylinder base during heating and cooling thereof. The compensator preferably includes a flexible flange integrally formed with either the cylinder base or the bed member and positioned closely adjacent the corresponding race. The race positioned closely adjacent the flexible flange is preferably slidably connected to the corresponding cylinder base or bed member so that slidably movement of the corresponding race responsive to heating and cooling of the cylinder base thereby moves the flexible flange. <IMAGE>

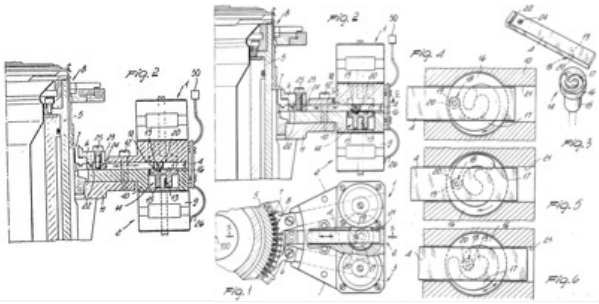




196. Circular knitting machine incorporating a device for setting to work knitting cams, in particular for hose knitting — IT8423968 — 1984-12-10 — LONATI; LONATI VIA S POLO 11 BRESCIA ITALY*; RONATEI — 1984-12-10 — 1984-12-10

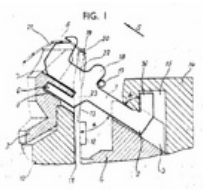
The invention is concerned with a circular knitting machine incorporating a device for setting the work knitting cams, in particular for hose knitting. The device comprises a slide (4) movable in a substantially perpendicular direction to the axis of the needle cylinder (5) and being rigidly associated with a knitting cam (6) selectively engageable with the needle (8) butts (7), and is characterized in that it comprises a step motor (9) actuated by an electronic machine control (50). The step motor (9) is connected to a drive cam (14) which engages with a cam follower (18) carried on the cited slide (4) to produce a preset displacement of the knitting cam (6) with respect to the needle cylinder (5) on account of the knitting cam (6) engaging selectively the needle (8) butts (7).

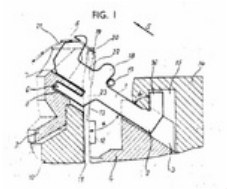




197. Procédé et dispositif pour la formation de mailles sur des métiers à tricoter circulaires. — DE2064526 — 1970-12-29 — ELITEX FORMATION OF LOOPS C; ELITEX ZADOVY TEXTILNIHO* — 1971-07-22 — 1971-07-22

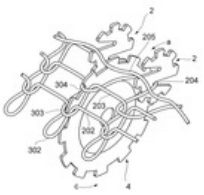
1307502 Knitting machines ELITEX-ZAVODY TEXTILNIHO STROJIRENSTVI GENERALNI REDITELSTVI 7 Jan 1971 [16 Jan 1970] 906/71 Heading D1C The loop forming motion in a circular knitting machine is caused in part by movement of the needle 13 and in part by solely linear movement of a loop forming sinker 1 in a direction obliquely inclined to the movement of the needle. The sinkers 1 slide in tricks 3 in a sinker ring 4 lying at an angle α to the needles and having a lid 14 to retain the sinkers. Butt 16 is held against the cam surface of groove 15 by a spring 17 engaging projections 18. The front of the sinker comprises a finger 6 sliding in a groove 8 in sinker circle 9. (From GB1307502 A)





198. Rotary sinker and knitting machine EP2436812 2011-09-07 OKAMOTO* 2012-04-04 2012-04-04

The present invention provides a rotary sinker capable of suppressing energy loss and achieving reduction in the driving load, a knitting machine provided with the rotary sinker, and a knitting machine control apparatus. The sinker 3 comprises a rotating body 4 that can rotate about an axis, and supporting members 32, 34 which rotatably support the rotating body 4. A circumference edge portion of the rotating body 4 is provided with sinker teeth 41 formed of a plurality of projecting sections to which rotational drive force is transmitted and with which a knitting yarn can be engaged.



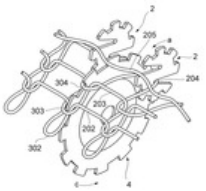


Fig.1

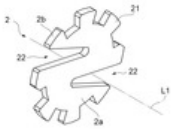


Fig.2

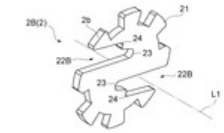


Fig.3

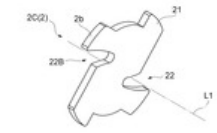


Fig.4



Fig.5



Fig.6

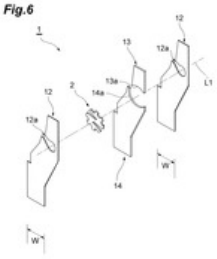


Fig.7

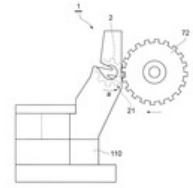


Fig.8

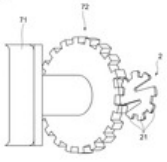
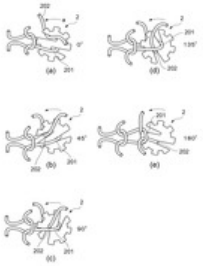


Fig.9

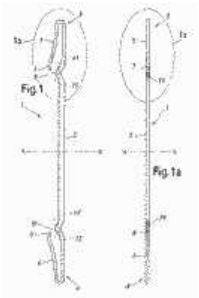


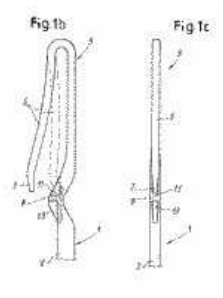
199. Needle motion CZ20070107 2007-02-12 CONTI P
GOLDEN LADY*
GOLDEN READY 2008-08-20 2008-08-20

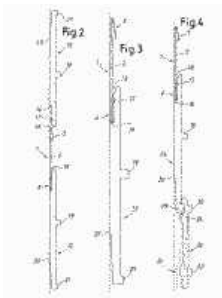
A needle motion with a knitting needle having formed, on both its ends of the stem (2), a knitting spring hook or beard (3, 4) extended by an elastic buckle (5, 6). The needle motion makes it possible to produce seamless knitted goods of the type of underwear, it simplifies the construction of the knitting machines and it improves the cost-effectiveness of the production by means of reduction of the duration of the production cycle.

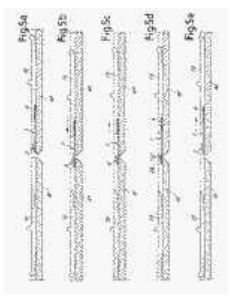


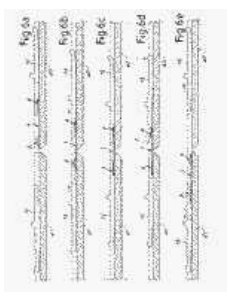


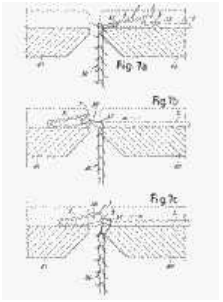


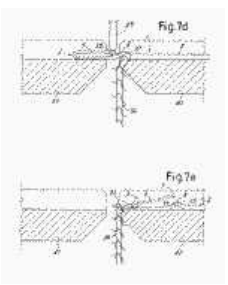


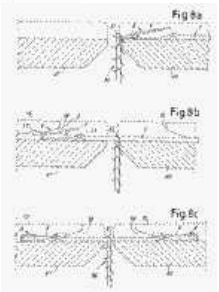


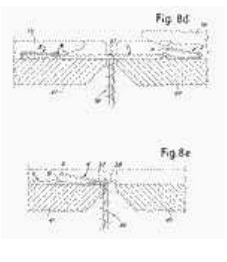












200.	Sinker mechanism for flat knitting machines	EP0578458	1992-07-09	SHIMA SEIKI MANUFACTURING*	1994-01-12	1994-01-12

A sinker mechanism is intended for a flat knitting machine (1) having at least one front needle bed (2) and one rear needle bed (2), each of the needle bed (2) having needle plates (3) which are arranged at equal intervals on the needle bed (2) and knitting needles (4) which are disposed between any two adjacent needle plates (3) for advancing and retracting movement. The needle plates (3) on the front needle bed and the needle plates (3) on the rear needle bed (2) close each other with distal ends. The sinker mechanism comprises a row of sinker assemblies, each sinker assembly comprising a needle plate (3), a swingable sinker (24) next to a front region of the needle plate, and a yarn guide sheet (32) fixedly mounted to a needle bed. The swingable sinker (24) has at front end a yarn holding portion (27). The yarn guide sheet (32) has at front end a yarn guide edge (37). When the swingable sinker (24) turns forward with its yarn holding portion (27) moving down, the yarn guide edge (37) of the yarn guide sheet comes above the yarn holding portion of the swingable sinker and projects outwardly of the front end of the sinker towards the intermediate between the front ends of the opposed needle beds (2). <IMAGE>

