

1	SELECTIVELY ENGAGEABLE HUB TO SHAFT CONNECTION	32	WITH AMBIENT CONDITION RESPONSIVE CONTROL MEANS
2	INCLUDING FRANGIBLE COMPONENT	33	WITH INDEPENDENT HANDLE OR OPERATOR
3	SELECTIVELY ASSEMBLED, E.G., CONVERTIBLE, ETC.	34	WITH DISTINCT FLUID OR ARTICLE HANDLING OR DIRECTING FEATURE
4	.Selective orientation	35	.External reservoir
5	INFLATABLE CONNECTOR	36	.Pressure fitting
6	WITH OPENING FOR ACCESS TO CONNECTOR OR OPERATOR	37	.Including port or reservoir communicating with joint
7	.To threaded component	38	..Articulated member
8	..Transverse to thread axis	39	...At joint interface
9	.To biased component	40	NON-ADHERING FLUENT MATERIAL AT JOINT
10	CLOSURE OR PLUG SPACED FROM JOINT	41	WITH STRAIN-LIMITING MEANS
11	WITH ADJUNCTIVE PROTECTOR, BROKEN PARTS RETAINER, REPAIR, ASSEMBLY OR DISASSEMBLY FEATURE	42	COMBINED
12	.Holding means or protector functioning only during transportation, assembly or disassembly	43	ROTARILY CONNECTED, DIFFERENTIALLY TRANSLATABLE MEMBERS, E.G., TURN-BUCKLE, ETC.
13	.Position or guide means	44	.Having tool-engaging means or operating handle
14	..Related to joint component	45	.Having operating mechanism
15	.Utilizing fluid pressure	46	.Having locking means
16	.Back-off means, e.g., separator, etc.	47	.Differential pitch, similar hand
17	.Handle or handwheel	48	.Externally threaded actuator
18	..Actuates retainer or blocker	49	LATERALLY RELATED MEMBERS CONNECTED BY LATCH MEANS, E.G., SCAFFOLD CONNECTORS
19	.Tool-engaging or accommodating means or with tool	50	FLEXIBLE DIAPHRAGM OR BELLOWS
20	..For latch or retainer	51	.With additional connection or packing
21	.Releasably captive nut or bolt	52	ARTICULATED MEMBERS
22	.Means to lock bolt or nut when other is turned	53	.Plural distinct articulation axes
23	WITH ADJUNCTIVE SHIELD	54	..Three or more parallel axes
24	STRUCTURALLY INSTALLED IN DIVERSE ART DEVICE	55	..Single adjustment for plural axes
25	.Head or base	56	..Plural ball and socket
26	COUPLING SUPPORTED BY INDEPENDENT BEARING	57	..Universal
27	WITH INDICATOR OR INSPECTION MEANS	58	...Non-coplanar axes
28	UTILIZING THERMAL CHARACTERISTIC, E.G., EXPANSION OR CONTRACTION, ETC.	59	..Angular and linear
29	.Interposed material of intermediate coefficient of expansion	60	...Screw and swivel
30	.Members having different coefficients of expansion	61	...Pivot stud slidable in elongated opening
31	WITH FLUID PRESSURE RESPONSIVE COMPONENT	62	..Parallel rotary
		63	..Plural translating connections
		64	.Branched
		65	.Member pivoted at rigid corner
		66	.Including static joint
		67	..Trunnion assembly to side of rod
		68	..One member is plate or side

69	...Secant, i.e., rod extending through plate	102	....Members locked in axial alignment
70	...Plate or side forms bearing surface	103	...Plural distinct positions
71	...Bearing component clamped to plate or side, e.g., bolted, etc.	104	..Plural distinct positions
72	..Articulate joint intermediate end joints	105	...Unidirectional movement, e.g., ratchet, etc.
73	...Variable angle	106	...At least one discrete position
74	....Universal	107	....Step-by-step adjustment
75	..Angled or offset members	108	....Retainer extends through aligned recesses
76	..Articulate joint is ball and socket	109.1	..Telescoping members
77	..With threaded joint	109.2	...Having detent
78	..Articulate joint is a swivel	109.3	....Spring biased
79	..Articulate joint comprises pivoted clevis or channel bar	109.4	....Threaded
80	..Articulate joint is a slide	109.5	....Cam or wedge
81	..Including operator	109.6	....Having transverse pin
82	..Arcuate shank moves in complementary guide	109.7	...Remotely actuated
83	..Lockable at fixed position	109.8	...Self-locking
84	..At selected angle	110	..Clamped members
85	...Movable brace between members	111	..Rotatable members resiliently biased to one position
86	...Members rotatable about oblique axes	112	..Including limit means
87	...Clamping screw traverses sliding complementary arcuate bearing surfaces	113	..For pivotal motion
88	...Securing yoke or ring spaced radially from locking means	114	...Ball and socket with restricted movement about one axis
89	....Eyebolt	115	....Ball stud passes through confining opening
90	...Ball and socket	116	...Pin and slot
91	...Including pivot stud	117	...Opposed stops on one member
92	....Including radially spaced detent or latch component	118	..Threaded interface
93	....Engaging notch or recess in outer periphery of component	119	..Pivoted
94	....Side of rod engages recess in radial face	120	..Including circumferential biasing or damping means
95	....Pivoted detent	121	..Rocking or rolling contact
96	....Engaging recess in radial face	122	..Universal ball and socket
97	....Including radial interengaging tongue and slot or serrations	123	...Including internal tie means
98	....Radially spaced arcuate slot engages fastener	124	...Plural concave surfaces with diverse curvature
99	....Locked by plural motions of one member	125	....Interposed concavo-convex component
100	....Including bridging keeper	126	....Outer surfaces
101	....Locked by nesting parts	127	...Swiveled ball parts or seat
		128	...Composite ball
		129	....Spring biased segments
		130	....Nonmetallic part
		131	....Stud extends into ball
		132	...Elastomerically biased or backed components
		133	...Elastomeric seat
		134	...Externally packed
		135	...Including liner, shim, or discrete seat

136	...Spring acts through wedging surfaces	173	..Plural pairs of axially aligned members
137	...Variably preloaded	174	..Coplanar
138	...Spring-biased seat opposite ball stud	175	...Additional rod held by encompassing means
139	...Porous	176	.Polyhedral
140	...Completely spacing the members	177	.Parallel rods
141	..Divided socket-type coupling	178	.Coplanar
142	..Bifurcated socket	179	DIVERSE MATERIAL COUPLING MEMBER
143	..Separable socket sections	180	THREE OR MORE SERIAL JOINTS, AT LEAST ONE DIVERSE
144	..Spring-biased	181	.Nonaligned axes
145	..Including tension or take-up means	182	.Separable intermediate joint
146	...Interposed spring means coaxial with pivot	183	..Axially acting connector
147	...Acting through tapered surface on bearing component	184	..Screw or cam
148	...Manually variable	185	JOINT INVOLVING PLURAL LAYERS OF SINGLE ROD
149	...External of bearing assembly, e.g., antirattler, etc.	186	LATERALLY RELATED RODS INDEPENDENTLY JOINED TO TRANSVERSE SURFACE
150	..T-pivot, e.g., wrist pin, etc.	187	ROD TO MEMBER TO SIDE, E.G., PLATE, ROD SIDE, ETC.
151	...Floating pin	188	.Rod side to member to side
152	...Pin is integral with or secured to inner member	189	.Unilateral of side
153	...Expanded pin or end	190	.Arcuate or multiplanar side
154	...Including distinct pin retainer	191	..Encompassed side
155	...Unitary clip or plug	192	.Intermediate member includes tubular part
156	...Threaded pin end	193	..Side or tubular part deformed in situ
157	...Fork and tongue	194	..Intermediate member extends through side
158	...With interposed antifriction means	195	...Split or divided tubular part and coacting compressor
159	...Oppositely laterally movable tines	196	...Transverse clamp secures rod and tubular part
160	..On oblique interface	197	...Rod also extends through side
161	..Transverse pin or stud	198	..Oblique rod
162	..Traverses interposed facing component	199	..Intermediate member secured to side by radial flange
163	...Attached to or integral with one member	200	..Internally threaded tubular part
164	.Rotatable	201	.Intermediate member extends completely through side
165	..Rod in socket	202	RADIALLY SPACED MEMBERS JOINED BY INDEPENDENT COUPLING
166	.Axially spring-biased coaxial members	203	.Flexible intermediate member
167	TRANSVERSE ROD TO SPACED PLATE SURFACES	204	COACTING CONNECTION BETWEEN INNER MEMBER AND PLURAL PARTS OF OUTER MEMBER
168	.Retainer utilizes or abuts plural plates	205	RIGID ANGLE COUPLING, E.G., ELBOW OR U, ETC.
169	BRANCHED	206	AXIALLY CURVED OR BENT PORTION OF ROD IS JOINT COMPONENT
170	.Three or more radiating members	207	.Interfitted crossing rods
171	..Polyhedral		
172	...Unilateral of plane		

208	.Joined to laterally related transverse surface at axially spaced points	244	.Socket formed by shaping or deforming side
209	.Reversely bent portion	245	.Integral transverse projection on side, e.g., necked, etc.
210	..Around eye-forming thimble	246	..From rod side
211	..With wedge clamp	247	.Utilizing opposite sides of member
212	..Held by crimped collar		
213	..Open U	248	..Rod is expanded by component inserted from distal side
214	.Intertwisted ends	249	...Separate and deformable component
215	.End of rod is deflected laterally within connector	250	...Plural contacting components
216	.Plural rods distorted by single component	251	...Barbed component
217	THREE OR MORE MEMBERS CONNECTED AT SINGLE LOCUS	252	..Inserted, blind-side-engaging, retaining portion on rod
218	.All encompassed	253	..Stepped or tapered recess in side
219	.Mutually contacting	254	...Terminal, rod-attached retainer engages distal side
220	FLEXIBLY CONNECTED RIGID MEMBERS	255	...Inserted into rod
221	.Rigid sleeve encompasses flexible bushing	256	..Clamped member
222	..Longitudinally divided sleeve	257	...Clamping component engages recessed side
223	.Flexible sleeve-type coupling	258	...Bolted to rod
224	.Connecting pin traverses radially interposed elastomer	259	...Between rod shoulder and terminal nut
225	.Elastomer interposed between radially spaced members	260	...Bolted through member
226	..Elastomer encompasses shoulder on inner member	261	...Coaxial collar or shoulder or rod is clamp element
227	..Including axially acting compressing means	262	.Flange on rod bolted to side
228	..Composite bushing with elastomeric component	263	.Rod received in recessed side, e.g., socket or tapered opening, etc.
229	.Helical spring type coupling	264	.Utilizing internal rod structure
230	ROD END TO TRANSVERSE SIDE OF MEMBER	265	MOLDED JOINT
231	.Corner joint	266	.And independent connection
232.1	.Stirrup	267	.Including mechanical interlock
233	.Structure attached to rod end encompasses side	268	.Socket or open cup for bonding material
234	..Clamped saddle	269	.Member cast in situ
235	..Yoke or ring	270	.Fusion bond, e.g., weld, etc.
236	...Having radial screw at bight	271	..Metallic fusion material
237	.Including saddle	272	...Added bonding material, e.g., solder, braze, etc.
238	.Gland type		
239	..Rod and side gripped simultaneously by single actuation	273	SHRUNK FIT
240	.Rod clamped to hole edge	274	MEMBER DEFORMED IN SITU
241	.Rod to open edge of side, e.g., wrap-around connection	275	.Separating element between strands of member
242	.Rod and side deformingly interlocked	276	.Interposed deforming element contacts socket bottom
243	.Radially interposed, side- engaging shim or bushing	277	.Inner member is expanded by longitudinally inserted element
		278	.By separate, deformable element

279	.Deformation occurs simultaneously with action of separate, diverse function, joint component	315	INCLUDING ANCILLARY MEANS BLOCKING DISCONNECTION OF JOINT
280	.Deforming component is inserted section	316	.Blocker for assembled joint retainer
281	.Separate deforming means remains with joint assembly	317	..Blocker keeper
282	.Deformation occurs simultaneously with assembly	318	..Blocked key
283	.By piercing	319	.Blocker is catch or key
284	.Diverse resistance to lateral deforming force	320	.Cam or thread lock
285	.Both members deformed	321	MANUALLY RELEASEABLE LATCH TYPE
286	BRIDGED BY DIVERSE CONNECTOR	322.1	.Having operating mechanism
287	INCLUDING SPACED, DIVERSE CONNECTIONS	322.2	..Ball detent
288	INCLUDING DISTINCT PACKING	322.3	..Remotely actuated
289	SPLIT END WITH LATERALLY MOVABLE OPPOSED PORTIONS	322.4	..Lever
290	.With separate force-applying means	323	.Swiveled bolt
291	FLEXIBLE MEMBER IS JOINT COMPONENT	324	.Transversely sliding pin
292	MEMBER ENDS JOINED BY INSERTED SECTION	325	.Spring biased manipulator
293	.Externally bridged	326	BIASED CATCH OR LATCH
294	.Laterally inserted section	327	.By separate spring
295	.Angle section	328	..Radially sliding catch
296	.Section threaded to member	329	.Leaf spring
297	.Expansible section	330	.Pivoted
298	.Fluted or splined section	331	SIDE SLIDE: ELONGATED CO-LINEAR MEMBERS
299	THREAD ADAPTOR	332	ANNULAR RECESS IS JOINT COMPONENT
300	DISTINCT END COUPLER	333	CONVERGENT INTERFACE
301	.Diverse serial connections	334	.Tapered
302	..Axially cleft coupler	335	INTERCONNECTED FLANGES OR SHOULDERS
303	.Single actuator for plural connections	336	.Separate flange or shoulder
304	..Axially biased end portions	337	.Axially bolted or riveted
305	.Plural opposed sockets	338	.Clamped
306	.Separate screw or pin-type connections	339	SCARF
307	.Continuous thread	340	.Mirror images
308	.Having separable end caps or plugs	341	INTERFITTED MEMBERS WITH EXTERNAL BRIDGING PIECE
309	.Interrupted periphery, e.g., split or segmental, etc.	342	THIMBLE: SCREW OR CAM
310	..Axially divided segments	343	SCREW OR CAM
311	...Interfitting	344	AXIALLY SPLIT OR SEPARABLE MEMBER INTERFITTED MEMBERS
312	...Bolted	345	.Crossed rods
313	..Split	346	..One rod is encompassed by the other
314	.Including member wedging or camming means	347	.Lugged member, rotary engagement
		349	..Bayonet joint
		350	.Rotary binding cam or wedge
		351	..Radially interposed shim or bushing
		352	...Arcuate slip
		353	.Assembled by plural manipulations of member
		354	.Diametric end slot is joint component

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|-------|---|-------|--|
| 355 | .Including separably interposed key | 379.6 |Expansible retainer |
| 356 | ..Axially extending | 380 | ..For interfitted side faces |
| 357 | ...Resilient | 381 | .Enlarged head in complementary recess, e.g., dovetail, etc. |
| 358 | ...Longitudinally stepped or tapered | 382 | .Rigid angle |
| 359.1 | .Longitudinally splined or fluted rod | 383 | .Non-circular rod section is joint component |
| 359.2 | ..Splayed or having a cam surface for anti-backlash | 384 | ROD SIDE TO PLATE OR SIDE |
| 359.3 | ..Rod designed to be manipulable, e.g., twistable, within coupling for quick disconnect | 385 | .Connected by double clamp |
| 359.4 | ..Including a means, e.g., spring biased portion, for misalignment correction | 386 | .Shackle is integral with or independently attached to proximate side of plate or other side |
| 359.5 | ..Including a lock or retainer | 387 | .Flanged or grooved rod |
| 359.6 | ..Specific angle or shape of rib, key, groove, or shoulder | 388 | .Traversed by connector |
| 360 | .Externally shouldered or headed rod | 389 | .Laterally spaced rods |
| 361 | .Socket | 390 | ..By separable shim or bushing in connector |
| 362 | .Including set screw | 391 | ..Plural channels in connector |
| 363 | .Interfitted angle or channel bars | 392 | .Connected by flexible tie |
| 364 | .Interdigitated ends | 393 | .Lapped rod ends |
| 365 | ..Radially interposed shim or bushing | 394 | .Diagonal connector |
| 366 | ..Biased by distinct radially acting means | 395 | .One rod held between bight and other rod extending through aperture in leg of connector |
| 367 | ..Wedging or camming | 396 | .Two rods encompassed by single connector |
| 368 | ...Engaged by axial movement | 397 | .Resilient clip |
| 369 |Plural, circumferentially related shims between members | 398 | .Yoke or ring-type connector |
| 370 |Threaded actuator | 399 | ..Rod received in open channel |
| 371 |Split or slotted bushing | 400 | .Crossed rods |
| 372 | ..Resilient | 401 | MITER JOINT |
| 373 | .Clamped members | 402 | .Connector bridges inner or outer periphery |
| 374.1 | ..By wedge or cam | 403 | RIGID ANGLE |
| 374.2 | ...Having actuator | 404 | PARTICULAR CONFIGURATION OR MATERIAL OF MEMBER |
| 374.3 |Threaded actuator | 408.1 | HAVING A JOINING PIECE EXTENDING THROUGH ALIGNED OPENINGS IN PLURAL MEMBERS |
| 374.4 |Axially oriented | 409.1 | HAVING A CAM, WEDGE, OR TAPERED PORTION |
| 374.5 |Lever actuator | 410 | MISCELLANEOUS |
| 375 | .Peripheral enlargement, depression, or slot on one member is joint component | | |
| 376 | .Including discrete retainer | | <u>FOREIGN ART COLLECTIONS</u> |
| 377 | ..For telescoping members | | |
| 378 | ...Transverse pin | | |
| 379.1 |Multiple retainers | | FOR 000 CLASS-RELATED FOREIGN DOCUMENTS |
| 379.2 |Having means to prevent removal of retainer | | |
| 379.3 |Bolt, rivet, or screw | | |
| 379.4 |Wedge pin | | |
| 379.5 |Sliding pin | | |

Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

ARTICULATED MEMBERS**LOCKABLE AT FIXED POSITION**

- FOR 100 .Telescoping members (403/109)
- FOR 101 .Having operating mechanism (403/322)
- FOR 102 ..By wedge or cam (403/374)

INTERFITTED MEMBERS

- .Including discrete retainer
- ..For telescoping members
- ...Transverse pin
- FOR 103 ...Traversing member (403/379)

DIGESTS

- DIG 1 **MAGNETIC**
- DIG 2 **METAL TREATMENT**
- DIG 3 **LOAD-RESPONSIVE RELEASE**
- DIG 4 **QUICK RELEASE**
- DIG 5 **CARBON ELECTRODE**
- DIG 6 **RECIPROCABLE BALL DETENT**
- DIG 7 **SPLIT RING STOP OR ABUTMENT**
- DIG 8 **RADIALLY ACTING CAM OR ECCENTRIC**
- DIG 9 **ADJUSTABLE CLAMP**
- DIG 10 **READILY DISENGAGEABLE PANEL**
- JOINTS**
- DIG 11 **FURNITURE TYPE HAVING A SNAP FIT**
- DIG 12 **FURNITURE TYPE HAVING A ROTATABLE FASTENER OR FASTENING ELEMENT THAT TIGHTENS CONNECTION**
- DIG 13 **FURNITURE TYPE**
- DIG 14 **RESILIENT CINCH, LOCKING-CATCH OR RETAINER TYPE**
- DIG 15 **SPLICE PLATES FOR CO-LINEAR MEMBERS**

