CLASS 24, BUCKLES, BUTTONS, CLASPS, ETC.

SECTION I - CLASS DEFINITION

This class provides for buckles, buttons, clasps, cord and rope holders, pins, separable fasteners, etc., which have become so varied in use and so allied in structure as to belong to no specific art, but are novel only as to their structures. There are, however, several types of fastenings included where the devices are but slightly identified with the art and are closely analogous to the main titles above cited. Such patents are retained under more or less art titles. Devices which embrace fastenings as above, but also include elements which connect them with various specific arts, have been excluded as far as practicable.

The fastenings have been classified structurally as far as possible, and where two or more simple fastenings are contained in one structure, it is found in subclasses indicating the kinds of fastenings so combined. This scheme is followed also through out those art subclasses which have been retained, where possible.

Many of the securing means placed within subclasses 287+ claim with the means an amount of structure-to-be-secured* necessary for either (a) completing the securing operation, (b) connecting components of the securing means together, (c) linking distinct securing means together, or (d) mounting the securing means. The mere naming of or recitation of the above (i.e., a-d) limited amount of structure-to-be-secured* will not exclude classification from Class 24, unless this subject matter is provided for elsewhere. Specific details or specificity of the structure-to-be-secured* going beyond this amount are excluded for this class and are placed in the particular class providing for that type of structure-to-be-secured*, combination, or mounting.

(1) Note. A securing means claimed in combination with a tool for operating it is classified in the appropriate class for the tool when a specific detail of the tool is claimed.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

All U. S. patents within subclasses 287+ are placed according to the following procedure: Original patents having claims defining subject matter within the scope normally associated with these subclasses should be placed within the first occurring subclass array and furthest, sequentially indented subclass thereunder which the claimed subject matter fits and if there are additional subclasses indented thereunder, on disclosure into the first occurring and furthest, sequentially indented subclass which the disclosed and claimed subject matter fits. It is additionally considered mandatory to cross-reference any independent claims(s), other than the one governing original placement or other claims defining the same subject matter, below into different subclass arrays using the same principles of placement by which the original is placed. Further, if the subject matter of the patent used in placing the original is a species of a generic claim and there are plural species disclosed in the patent, then it is mandatory to cross-reference the patent to the first subclass immediately above and under which the original's subclass is indented which can fully accept the subject matter of all claimed and disclosed species. However, if the patents are more than 17 years old, the cross-referencing of any claimed subject matter to a different subclass array, either above or below that into which the original is placed, is solely discretionary and is not mandatory if it is felt that the claimed subject matter is already well represented in these other subclass arrays.

LINE BETWEEN CLASS 24 AND CLASS 2

The line with Class 2, Apparel, and this class (24) with respect to garment supporters is as follows:

Class 24 takes single or combined securing means used to support a garment or to hold parts of a garment supporter together when either (a) no significant structural feature of the garment or held parts is claimed or (b) the specific configuration of the held parts of the supporter is not claimed. Examples of the garment supporters proper for Class 24 are (1) two distinct securing means connected by a single nominally recited strip or strand, (2) cooperating components of a securing means located on the ends of a nominally recited belt, strip, or strand for holding the ends together to form a loop, and (3) securing means for holding together two or more named garments or named parts of a garment supporter.

Class 2 takes all other garment supporters or parts thereof not provided for elsewhere.

Patents claiming either (1) two or more discrete, rigid* or semirigid* (i.e., nonflaccid), joined members and details peculiar to their common joint or (2) a fastener constructed with features peculiarly adapting it for use with such members (e.g., angle clamp, converging clasp for members having divergent cross sections, jointed connector allowing relative movement between members) and disclosing that the members are (a) mere stock

material having only general utility until joined together into a particular assemblage (e.g., framework members transmitting force to one another), (b) components of an assemblage, each of which have the same utility before and after joining, but when joined together interact with each other to accomplish a common task and no longer have any independent operation (e.g., torque transmitting rods, pipeline), (c) subcomponents of an assemblage one of which having utility only when interacting with the other to accomplish a specific task (e.g., windshield wiper and windshield), or (d) articles each having independent utility and when joined together cooperate with each other to change, enhance, or make interdependent their operation (e.g., articulated trailers) have been classified in the appropriate class (e.g., Class 64, Class 74, Class 248, Class 280, Class 285, Class 439, or Class 403) based on details of the members or joint.

LINE BETWEEN CLASS 24 AND CLASS 248

The line between this class (24) and Class 248 is largely based on disclosure. Thus, inventions which involve distinct means for engaging a support and a supported article wherein the sole disclosure is of a support against gravity are classifiable in Class 248 even though it may be possible to find other utility therefore. Subcombinations of such devices are classifiable in Class 248 in the absence of a clear indication of general utility for the subcombination. For example, a clip* in general is classified in this class (24) even when disclosed as having a supporting function; however, when a clip* is particularly adapted for service as a support against gravity (e.g., the gripping jaw is gravity actuated) or as a hold down and there is no other utility disclosed, then it is classified in Class 248.

Devices intended for transmitting an active pushing, pulling, lifting, or driving force through their structure from a force input element to a separate (a) transportable load, (b) piece of work or (b) tool are classified elsewhere based upon the type of function of the input element (e.g., if it is a cable, if it is a handle, if it is for a load grab of a vertically swinging load support, if it is a pushing or pulling implement, if it is for a tool holding chuck, if it is a press--See the search class notes below for this subject matter)

SECTION III - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

2, Apparel, appropriate subclasses for a fastener claimed in combination with either specific apparel structure or specific additional apparel supporting structure, and see (1) Note of this class definition for the line between Class 2 and Class 24.

16, Miscellaneous Hardware, for a handle.

29, Metal Working, appropriate subclasses, for a process or means to make a Class 24 fastener.

40, Card, Picture, or Sign Exhibiting, appropriate subclasses for a fastener either claimed in combination with information exhibiting structure (e.g., badge, tag) or claiming a special accommodating feature (e.g., holder) for information exhibiting structure.

63, Jewelry, appropriate subclasses for a fastener either (a) in combination with jewelry structure, (b) having an ornamental shape, (c) having a special accommodating feature (e.g., setting) for jewelry structure, or (d) constructed from valuable decorative material (e.g., gold).

70, Locks, appropriate subclasses for a fastener which either (a) is combined with distinct locking means or (b) requires the aid of a key or specialized tool to release it.

100, Presses, for a press.

119, Animal Husbandry, subclasses 863+ for an animal collar or harness having a particular buckle, length-fixing, or end-joining means.

132, Toilet, subclasses 9+ for a device which fastens hair.

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, appropriate subclasses for a method or an apparatus to fasten two members together with an adhesive.

163, Needle and Pin Making, appropriate subclasses for an apparatus for or a method to make a pin.

224, Package and Article Carriers, appropriate subclasses for a fastener which holds an article, while it is being transported between two locations, upon a person or vehicle.

248, Supports, appropriate subclasses for a fastener which supports an article against gravity, and see (5) Note of this class definition for the line between Class 24 and Class 248.

254, Implements or Appartus for Pushing or Pulling Force, if it is a pushing or pulling implement.

269, Work Holders, appropriate subclasses for means for holding an article at a location while it is being operated on or treated.

279, Chucks or Sockets, appropriate subclasses for means which grips a pipe, rod, or tool and transmits a rotating or reciprocating force thereto from an unclaimed power source.

285, Pipe Joints or Couplings, appropriate subclasses for a coupling means, per se, which has a structural feature particular to connecting pipes.

292, Closure Fasteners, appropriate subclasses for a fastener which is intended to hold a distinct closure in a position blocking an opening.

294, Handling: Hand and Hoist-Line Implements, appropriate subclasses for a fastener which transmits a force from a handle or hoist-line to an object or material moved thereby.

402, Binder Device Releasably Engaging Aperture or Notch of Sheet, appropriate subclasses for retaining means which passes through or forms an opening in a sheet of paper to releasably secure it.

403, Joints and Connections, appropriate subclasses for a joint between (a) two rigid* or semi-rigid* members, (b) two portions of a rigid* or semi-rigid* member, or (c) a flaccid* and a rigid* or semi-rigid* member which involves either an intrinsic property of one of the members or portions thereof or a particular relationship between the members or portions; and fastening means, per se, limited to such joints by their structure.

410, Freight Accommodations on Freight Carrier, appropriate subclasses for means to secure an article to a freight carrier.

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, appropriate subclasses for a general utility fastener which is (a) tool driven, (b) tool manipulated, or (c) deformed during the fastening operation and devices used in conjunction with such fasteners.

414, Material or Article Handling, for a load grab of a vertically swinging load support.

439, Electrical Connectors, appropriate subclasses for a detachable connector (e.g., fastener), per se, which either (a) is specially designed for, (b) includes structure having particular utility for, or (c) has the sole disclosed utility of conducting electricity; and see the class definition of Class 439, section IV for the line between Class 24 and Class 439.

SECTION IV - GLOSSARY

Terms or phrases used in titles or definitions, either repeatedly or in a special and limited sense, are set forth below with the meaning each is to have for subclasses 287+. For economy of space, an asterisk (*) following a word indicates that reference should be made to this Glossary for the specific meaning thereof while an (*) following a hyphenated phrase, e.g., structure-to-be-secured(*), indicates that that entire hyphenated term as such has been defined in this Glossary.

BUCKLE(*)

A securing means wherein either member is adapted to allow structure-to-be-se-cured (*) to pass therethrough, or wherein the members are adapted to allow structure-to-be-secured(*) to pass completely therebetween in a path generally parallel to the longitudinal axis of the members. Buckles are designed to adjustably secure belts, bands, or similar longitudinal articles and generally operate by having one end of the belt band, etc., fixed securely to one end of the buckle with another frictionally or resiliently securing the belt, band, etc., or by passing through a provided for aperture in the belt, band, etc., and generally also has two connected, relatively movable members.

CLASP(*)

A securing mechanism or element including two coacting members or member segments having gripping surfaces which engage portions of structure-to-be-secured* on opposite sides in a jawlike manner to thereby (a) prevent or hinder the movement of struc-ture-to-be secured* relative to the surfaces in at least one direction, (b) prevent or hinder the separation of distinct portions of the structure-to-be-secured* from each other, or (c) perform a securement of structure-to-be-secured* by overedge engagement thereof. The gripping surfaces of the coacting members or member segments are intended to be always easily moved into and out of engagement with the structure-to-be-secured* by either direct manual or tool force thereon or actuation of an attached operator*. In addition, both of the coacting members or member segment, when engaging with or disengaging from the structure-to-be-secured*, do not exceed the elastic limit of or destroy any portion of the securing mechanism or element. If the mechanism or element is formed from either a single piece or plural fixedly attached pieces of rigid* material, then the structural shape of the gripping surfaces and the outward force of the compressed structure-to-be-secured* provide the gripping force required above.

CLIP(*)

A securing mechanism or element including a member which (1) is intended to be connected or attached to a rigid or semirigid supporting member (e.g., wall, floor,

roof) or article (e.g., pen, vehicle) having an additional and usually principle function other than normally associated with this class, and (2) has a gripping surface intended to coact with the surface of the supporting member or article to engage the opposite sides of a distinct structure-to-be-secured* positioned therebetween to prevent or hinder either (a) the movement of the structure-to-be-secured* relative to the surfaces in one direction, or (b) the separation of a structure-to-be-secured* from the supporting member or article.

The gripping surface of the member is intended to be always easily moved into and out of engagement with the structure-to-be-secured* by either direct manual or tool force thereon or actuation of an attached operator*. In addition, the gripping surface, when engaging with or disengaging from the structure-to-be-secured does not exceed the elastic limit of or destroy any portion of the securing mechanism or element. If the mechanism or element is formed from either a single piece or plural fixedly attached pieces of rigid* material, then the structural shape of the gripping surfaces and the outward force of the compressed structure-to-be-secured provide the gripping force required above.

DRAWSTRING*

A securing mechanism including both a string (i.e., a thin elongated flaccid member) and guiding means therefor (e.g., eyelet, hollow hem) located on a portion of the structure-to-be-secured* which surrounds an opening; wherein the string (a) encircles the opening, (b) draws the perimeter of the structure-to-be-secured* toward the center of the opening to close or tighten it when a portion of the string is pulled through its guiding means to shorten the effective length of the remaining portion of the string encircling the opening, and (c) secures the perimeter of the structure-to-be-secured* in its new position when the extracted portion of the string which was pulled through the guide means is prevented from moving (e.g., tied).

FLACCID*

Structure which, when subjected to a distortion force less than or equal to earth's gravitational force, is incapable (in at least one of its orientations) of maintaining its previous formational shape or being self-supporting over any appreciable dimension.

HAND-ACTUATED(*); HAND-OPERATED(*)

The term hand-actuated or hand-operated is used in the sense of like contact with a living being and solely applies to the use of the hand in operating a fastener (i.e., moving portions of the fastener relative to each other) of the Class 24 type.

LACED-FASTENER*

A securing mechanism including both a string (i.e., a thin elongated flaccid* member) and guiding means (e.g., path defining eyelets) therefor located on two spaced edges of the structure-to-be-secured*; wherein the string (a) links together the guiding means on opposite sides of and traverses the gap between the edges, (b) draws the edges toward each other when a portion of the string is pulled past its guiding means to shorten the effective length of the remaining portion of the string traversing the gap, and (c) secures the edges in fixed relationship to each other when the extracted portion of the string is prevented from moving (e.g., tied).

LOCKING MEANS*

A component having the sole function of restricting the movement between and holding in a particular position or orientation (e.g., not moving or reorienting) either (1) one portion of the fastener relative to another portion of the fastener, or (2) one fastener relative to another fastener.

OPERATOR*

A manipulable mechanical means which contacts and moves with respect to a shiftable portion of a fastener mechanism to reposition or transmit an input force to the shiftable portion. A mere spring which effects the movement of the parts of the fastener mechanism, for example, by utilizing stored energy to return its parts to a starting position, is not included in the meaning of this term.

PIN*

A securing mechanism having both (a) a portion specifically shaped (e.g., pointed) to facilitate impaling of and penetration into either the structure-to-be-secured* or a supporting member therefor during its operation and (b) a remaining portion (e.g., head) not intended to penetrate either the structure-to-be-secured* or a supporting member therefor in the final securing position of the mechanism. In addition, the penetrating portion of the securing mechanism is intended to be always easily impaled into and extracted from the penetrated area of the structure-to-be-secured* or its supporting member by unaided directed manual force. Finally, the normal securing or releasing operation of the mechanism

requires no portion of the mechanism to be destroyed or undergo forces in excess of those causing plastic deformation of the material from which it is constructed.

RESILIENT*

Structure which is both capable (a) of distortion when subjected to a force of the magnitude normally encountered within the disclosed environment and (b) of complete resumption of its original shape due to the energy stored within it by the distortion force after its removal.

RIGID*

Structure which when subjected to a distortion force normally encountered within the environment (as defined by the disclosure and associated with the securing operation of a Class 24 fastener) is capable of resisting this force if applied to the structure in any orientation and maintaining its previous formational shape thereafter.

SEMIRIGID*

Structure which is both (a) capable of resisting distortion (i.e., maintaining its previous formational shape or being self supporting over all appreciable dimensions) caused by a force applied to it in any of its orientations which is of a magnitude equal to or less than the earth's gravitational force and (b) incapable of resisting distortion caused by a force applied to it which is normally encountered in its working environment (e.g., ductile or resilient* structure).

SEPARABLE-FASTENER*

A securing mechanism including two, separate, dissociable, mating members having faces which directly or through a separate linking member (1) contact and interlock (i.e., the movement between the faces is restricted in the direction force is transmitted thereto by the structure-to-be-secured*) with each other when fastening either (a) spaced portions of the structure-to-be-secured* together, or (b) the structure-to-be-secured* to a supporting member having a principle function not associated with this class (e.g., door, wall) and (2) are intended to be always easily associated or dissociated from each other either by direct manual force or by actuation of an operator* attached to one of the members. Both of the mating members of this mechanism are intended to be attached to or formed from a section of either the structure-to-be-secured* or a supporting member therefor and neither of these members is ever structurally linked to the other by any structure other than the structure-to-be-secured* when their faces are not in their interlock position. In addition, both of the members when associated or dissociated do not exceed the elastic limit, or destroy any portion, or the material forming the faces.

STRUCTURE-TO-BE-SECURED*

Structure having a principle function other than that normally associated with this class (i.e., not a component of a Class 24 fastener) which is attached, fastened, gripped, or secured by a Class 24 fastener, either to itself or to another structure.

SUPPORT-CLAMP(*)

A securing mechanism or element which (1) is attached to the structure-to-be-secured* for subsequently mounting it on a rigid* or semirigid* member (e.g., wall, floor, roof) or article (e.g., pen, vehicle) having an additional and usually principal function other than normally associated with this class, and (2) having either (a) a gripping surface which is mounted to and intended to coact with an opposed gripping surface formed by the structure-to-be-secured* to engage the opposite sides of the rigid or semirigid member or article positioned therebetween, or (b) two coacting members or member segments having gripping surfaces which engage opposite sides of the rigid* or semirigid* member or article in a jawlike manner, and (3) having structure which hinders the movement of the gripping surfaces relative to the member or article and prevents the separation of the structure-to-be-secured* from the member or article. The gripping surfaces of the securing mechanism or element are intended to be always easily moved into and out of engagement with the rigid* or semirigid* member or article by either direct manual or tool force thereon or actuation of an operator* attached to the securing mechanism or element. In addition, the gripping surfaces of the securing mechanism or element, when engaging with or disengaging from the rigid* or semirigid* member or article, do not exceed the elastic limit of or destroy any portion of the securing mechanism or element. If the mechanism or element is formed from either a single piece or plural fixedly attached pieces of rigid* material, then the structural shape of the gripping surfaces and the outward force of the compressed structure-to-be-secured* provides the gripping force required above.

TOOLS(*)

An instrument for affecting the operation of a Class 24

fastener usually operated by hand and totally separable from the fastener after affecting operation.

ZIPPER(*)

A mechanism for either closing an opening in structure-to-be-secured*, or connecting together separate members of structure to be secured* including (a) two, opposed, elongated, cooperating, configured surfaces which are attached to the structure-to-be-secured* by mounting means and intended to directly contact and interlock with each other (i.e., the movement between the configured surfaces is restricted in the direction force is transmitted thereto by the structure-to-be-secured*) when closing or connecting, and (b) a sliding device which is much shorter in length than the surfaces and which travels along the length of the surfaces sequentially contacting and simultaneously camming against each segments of both surfaces to forcibly shift them into or out of interlocking engagement, the direction of travel of the device generally being perpendicular to the shifting motion of the interlocking configured surfaces.

SUBCLASSES

1 MISCELLANEOUS:
This subclass is indented under the class definition. Devices not otherwise classifiable.

2 ALBUM FASTENERS:
This subclass is indented under the class definition. Devices specially adapted for the purpose of keeping albums and other books closed when not in use.

SEE OR SEARCH CLASS:
70, Locks, appropriate subclasses for similar fastening devices as in this subclass (2) and their specific details.
292, Closure Fasteners, appropriate subclasses for similar fastening devices as in this subclass (2) and their specific details.

2.5 GUN BAND TYPE:
This subclass is indented under the class definition. Devices comprising bands which hold the barrel of a firearm to the stock and in addition perform some other function, e.g., support a hook and/or one or more loops.

(1) Note. The loops may be utilized for anchoring a gun sling and/or for gun stacking purpose.

SEE OR SEARCH THIS CLASS, SUBCLASS:
265, for strap-end-attaching devices.

SEE OR SEARCH CLASS:
42, Firearms, subclass 85 for gun slings.
248, Supports, subclasses 683+ for article carried supports which support the article when in storage and remain with the article when in use.

3.1 ARTICLE HOLDER ATTACHABLE TO APPAREL OR BODY:
This subclass is indented under the class definition. Device for fastening or holding an article (e.g., pencil, flower, napkin, spectacle, spectacle case, scissor) which is to be carried about on clothing, belt, or part of body.

(1) Note. Holder in this subclass is specially adapted for carrying a specific article.

SEE OR SEARCH CLASS:
40, Card, Picture, or Sign Exhibiting, subclasses 299.01+, particularly subclasses 642.02+ and 658+ for ticket-holders.
224, Package and Article Carriers, subclasses 101+ for carrying devices that are: (1) intended for personal wear or (2) supported on a person.
242, Winding, Tensioning, or Guiding, subclasses 96+ for body supported reel devices wherein many of the reeled strands are adapted to be connected with, or attached to, an article (usually some article for personal use or wear) and subclass 136 for spool-holders attached to the person.

3.11 Article held by clip with spring (e.g., leaf, coil) member:
This subclass is indented under subclass 3.1. Device in which the article carrying structure includes a gripping member and a distinct elastic spring, separate from the gripping member, to firmly force the gripping members to engage a garment (e.g., belt, shirt, pants) or hat.

SEE OR SEARCH CLASS:
224, Package and Article Carriers, subclass 252 for clip attaching receiver to support means on bearer.

3.12 Article held by clip:
This subclass is indented under subclass 3.1. Device in which the article carrying structure is an elastic clamp to grip a garment (e.g., belt, shirt, pants) or hat.

3.13 Article held by flexible connector (e.g., chain):
This subclass is indented under subclass 3.1. Device in which the article carrying structure is in the form of a pliable link between the article at one end (e.g, a watch, pacifier, key ring, ID) and the garment fastening point at the other end (e.g., a buttonhole, pocket).

3.2 Arm or leg carried holder:
This subclass is indented under subclass 3.1. Device in which the article carrying structure is located on the part of the body either between the shoulder and the fingers or between the hip and the toes.

3.3 Eyeglass holder including retaining means:
This subclass is indented under subclass 3.1. Device in which the article is a frame for holding vision correction lenses wherein the article carrying structure fastens to the frame and also has a means to fix said article carrying structure in the fastening position to the supporting structure.

3.4 Neck supported holder:
This subclass is indented under subclass 3.1. Device in which the article carrying structure is located on the part of the body between the head and shoulders.

3.5 Holder contains pocket engager (e.g., anti-theft device, wallet protector):
This subclass is indented under subclass 3.1. Device in which the article carrying structure has means to contact a piece of material sewed onto the outside of a garment with the top edge open.

3.6 Key ring holder:
This subclass is indented under subclass 3.1. Device in which the article carrying structure is designed to hold an implement to open a lock.

SEE OR SEARCH CLASS:
70, Locks, subclass 459 for key holders combined with other articles.

3.7 Receptacle type holder:
This subclass is indented under subclass 3.1. Device in which the article carrying structure is a small container designed to hold personal items (e.g., hair pins, cigarettes, rulers, money).

SEE OR SEARCH THIS CLASS, SUBCLASS:
3.3, for eyeglass holder including retaining means.

SEE OR SEARCH CLASS:
224, Package and Article Carriers, subclass 163 for carriers mounted on or formed as a part of a belt buckle and subclass 269 for a clip or hook attaching an article carrier to support means on a bearer.

3.8 Eyeglass or spectacle case:
This subclass is indented under subclass 3.7. Device in which the article carrying structure is designed to hold vision correction lenses and frame.

3.9 Open-ended holster type holder:
This subclass is indented under subclass 3.1. Device in which the article carrying structure is tubular shaped and designed to restrain small personal implements within the perimeter of the shape.

4 Chatelaine safety hooks:
This subclass is indented under subclass 3.1. Devices which are adapted for holding chatelaine-bags. The hook is provided with a safety device to prevent loss of the bag.

SEE OR SEARCH CLASS:
224, Package and Article Carriers, subclasses 194, 269, and 660+ for similar devices where the purpose of transportation prevails.

5 Flower:
This subclass is indented under subclass 3.1. Devices designed especially to hold flowers in those cases where the flowers are to be attached to the clothing.

SEE OR SEARCH THIS CLASS, SUBCLASS:
10+, for pencil holders.

SEE OR SEARCH CLASS:
47, Plant Husbandry, subclass 41.01 for other cut flower or plant holders having moisture retaining means. See also the notes to that subclass for search fields for other types of cut flower or plant holders.
132, Toilet, subclasses 46+ for such devices to be attached to the hair.

6 Pin attached:
This subclass is indented under subclass 5. Devices attached by means of a pin fastening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
12, for pin attached pencil holders.

7 Napkin:
This subclass is indented under subclass 3.1. Devices containing features which make them specially adapted for use as napkin-holders. Includes holders which are convertible into napkin-rings when desired.

SEE OR SEARCH CLASS:
138, Pipes and Tubular Conduits, appropriate subclasses, for napkin holders comprising mere tubular structure.
248, Supports, appropriate subclasses, for napkin holders which include support structure such as stands, brackets, or supporting bases.

8 Hook:
This subclass is indented under subclass 7. Devices attached by a hook.

9 Neck enclosing:
This subclass is indented under subclass 7. Devices encircling the neck of the wearer.

10 Pencil:
This subclass is indented under subclass 3.1. Devices especially adapted for the purpose of holding pencils and like articles in pockets, including pencil-holders attached to the clothing.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5+, for flower holders.

SEE OR SEARCH CLASS:
2, Apparel, subclasses 249 and 250 for pockets with article attaching or retaining features; and subclass 252 for closing attachments.
150, Purses, Wallets, and Protective Covers, subclasses 106, 112+ and 132+ for purses and wallets which have means to hold articles.
401, Coating Implements With Material Supply, subclasses 52, 104+ and 195, for a patent to the combination of a writing implement and means to retain it in a garment pocket, wherein more of the implement structure is claimed than is necessary to establish the relationship of the retaining means therewith.

11 Clasp attached:
This subclass is indented under subclass 10. Pencil-holders which are attached by means of a clasp.

(1) Note. Class 401, Coating Implements With Material Supply, includes the following subclasses which are loci for patents to an implement with material supply in which a clasp is associated with another device: 52, with a pencil, or the like; 104+, with project-retract mechanism; and 195, with a tool which applies or spreads fluent coating material.

SEE OR SEARCH CLASS:
30, Cutlery, subclass 123, for a pencil attachment including a clasp and a cutter.

12 Pin attached:
This subclass is indented under subclass 10. Devices attached by means of a pin-fastening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
6, for pin attached flower holders.

13 Pin attached:
This subclass is indented under subclass 3.1. Article-Holders which have a pin attachment.

SEE OR SEARCH CLASS:
242, Winding, Tensioning, or Guiding, subclasses 371+ for a spring powered reel of general use and subclasses 136+ for a strand spool holder.

15 Sleeve holder (e.g., for inner coat):
This subclass is indented under subclass 3.1. Devices for holding the inner coat-sleeve while an outer coat is being put on. This subclass also includes other sleeve-holders which do not come under the above definition, but are placed there because they are sleeve-holders nominally.

16 BALE AND PACKAGE TIES, HOSE CLAMPS:
This subclass is indented under the class definition. Devices especially adapted for bundling papers, bales, packets, etc., and for clamping hoses, by means of straps, bands or the like.

SEE OR SEARCH THIS CLASS, SUBCLASS:
115+, for devices for holding the ends of cords or ropes.

SEE OR SEARCH CLASS:
99, Foods and Beverages: Apparatus, subclass 350 for bands or binders for cooking food.
138, Pipes and Tubular Conduits, subclass 99 for similar devices to be used as a patch for a leaky pipe or hose.
217, Wooden Receptacles, subclasses 66+ for similar devices adapted for use on wooden boxes by reason of fastenings, and subclasses 91+ for barrel hoops. Barrel hoops consisting of a strip, with means for securing the ends together, except for tightening the hoop are in this class (24).
410, Freight Accommodation on Freight Carrier, subclasses 34+ for a wraparound load binder securing a group of articles to a freight carrier surface; and subclasses 97+ for a wraparound similarly securing general freight load units.

17 Packet holders:
This subclass is indented under subclass 16. Devices specially adapted for bundling or packing such articles as sheet-paper, currency, gloves, and the like, but excludes such as are receptacles. They consist of various arrangements of bands, straps, cords, and wires in connection with some form of tying or fastening means. On account of the close similarity in structure umbrella-ties, trunk strap fastenings, bag-holders, etc., have been included where the invention is not classifiable as a fastening device simply.

SEE OR SEARCH THIS CLASS, SUBCLASS:
30.5, for bag-fasteners which are peculiarly adapted for closing bags.
66+, for devices adapted for holding the edges or ends of a number of sheets of paper so as to permit writing on same or reference to individual sheets.

SEE OR SEARCH CLASS:
2, Apparel, subclasses 311+, particularly subclasses 321+ for similar devices in garment supporters and retainers.
100, Presses, subclass 212 for pressing devices not elsewhere provided for which are supported from the ground or from a material penetrating element and in which the material is pressed within a bendable filament, strand or band by contracting it around the material. See the reference to Class 24 in the class definition of Class 100 for a statement of the line between the classes.
190, Trunks and Hand-Carried Luggage, subclass 27 for combinations of straps suitable for securing trunks in their closed position or straps attached to the trunks.

229, Envelopes, Wrappers, and Paperboard Boxes, subclasses 78.1+ for metallic closure fasteners for paper envelopes.
292, Closure Fasteners, subclass 325 for seal type strap-end fasteners.
294, Handling: Hand and Hoist-Line Implements, subclass 137 for similar devices in which a handle or carrying portion is included.

18 Cord:
This subclass is indented under subclass 17. Packet-holders which make use of cord or rope and have a metallic fastener for holding the ends and which provide for the cord passing about the package in two directions.

SEE OR SEARCH THIS CLASS, SUBCLASS:
115, when the cord-holder is intended for cords which only pass around the package in one direction.

SEE OR SEARCH CLASS:
292, Closure Fasteners, subclasses 307+ for seals, per se, and subclass 327 for seal bolts.
294, Handling: Hand and Hoist-Line Implements, subclass 149 for hand-held article carriers having similar structure.

19 With tighteners:
This subclass is indented under subclass 16. Devices relating to means for tightening the bundling or clamping straps or bands.

SEE OR SEARCH THIS CLASS, SUBCLASS:
12, for lashing means, including a tightener for securing a four-wheel vehicle to the freight carrier on which it is shipped.
32, for tightener fasteners for driving-belts.
38+, in which the load unit is a group of articles.
68+, for strap-tightener fasteners, per se.
100, in which the load unit is indiscriminate freight and the lashing means is a wraparound.
103, for a lashing subcombination to an anchor which, in this subclass, includes a tightener.

SEE OR SEARCH CLASS:
54, Harness for Working Animal, subclass 27 for hame fasteners with a lever.
100, Presses, subclass 212 for pressing devices not elsewhere provided for, which are supported from the ground or from a material penetrating element and in which the material is pressed within a bendable filament, strand or band by contracting it around the material. See the reference to Class 24 in the class definition of Class 100 for a statement of the line between the classes.
215, Bottles and Jars, subclasses 273+ for closure fasteners for bottles and jars.
217, Wooden Receptacles, subclasses 94+ for barrel hoops with tighteners permanently a part thereof.
220, Receptacles, subclasses 320+ for similar fasteners for metallic receptacle closures.
254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 199+ for portable implements or apparatus used to tension flexible material (e.g., package ties) from which the implement or apparatus is then detached after the desired amount of tension is applied.
269, Work Holders, appropriate subclasses. Class 269 is the residual locus for patents to a device for clamping, supporting and/or holding an article (or articles) in position to be operated on or treated. See notes thereunder for other related loci.
285, Pipe Joints or Couplings, subclasses 365+ and 407+ for flanged pipe couplings comprising band clamps with means to draw pipe ends together.
292, Closure Fasteners, appropriate subclasses for other closure fasteners.
294, Handling: Hand and Hoist-Line Implements, subclass 150 for hand-held article carriers having an article-retaining strap and a strap tightener.
301, Land Vehicles: Wheels and Axles, subclasses 87+ for nonresilient tires which include a tightener fastener.

410, Freight Accommodation on Freight Carrier, for a tightener used with means (e.g., wraparound means) lashing a load unit to a freight carrier, the following subclasses being particularly relevant:

20 Metal bands:
This subclass is indented under subclass 16. Devices in which the tie is a metallic band, and the connection is made by means of some integral part of the band, either by bending, cutting, or forming up a portion of the same. Devices are also included where the invention is the band itself.

SEE OR SEARCH CLASS:
100, Presses, subclass 212 for pressing devices not elsewhere provided for, which are supported from the ground or from a material penetrating element and in which the material is pressed within a bendable filament, strand or band by contracting it around the material. See the reference to Class 24 in the class definition of Class 100 for a statement of the line between the classes.

21 Separate connections:
This subclass is indented under subclass 20. Devices where the metal band is connected by means of a separate part or parts.

22 One piece:
This subclass is indented under subclass 21. Devices where the separate connection is made of one piece.

23 Sheet metal:
This subclass is indented under subclass 22. Devices where the connection is made of sheet metal.

24 Pivoted parts:
This subclass is indented under subclass 21. Devices where the connecting parts are pivoted together.

25 Wedging parts:
This subclass is indented under subclass 21. Devices where wedges or rolls are used to clamp the band in the connection.

26 Wire:
This subclass is indented under subclass 21. Devices where the connection is made of wire.

27 Wire:
This subclass is indented under subclass 16. Devices composed of wire, having the ends so made or formed as to be capable of fastening without other parts.

28 Separate connections:
This subclass is indented under subclass 27. Devices where the wire tie is fastened by means of a separate connection.

29 Wire:
This subclass is indented under subclass 28. Devices where the separate connection is also of wire.

30 Wooden bands:
This subclass is indented under subclass 16. Devices where the tie is made of wood and is usually used as a barrel-hoop. Some are made with a separate metallic connecting part.

30.5 BAG FASTENERS:
This subclass is indented under the class definition. Devices fastening around the neck of a bag for holding the same closed.

SEE OR SEARCH CLASS:
383, Flexible Bags, subclasses 42+ for a fastener combined with a bag.

31 BELT FASTENERS:
This subclass is indented under the class definition. Devices specially adapted for connecting together the ends of driving-belts.

SEE OR SEARCH THIS CLASS, SUBCLASS:
123+, for couplings or fasteners for round belts or ropes.

SEE OR SEARCH CLASS:
428, Stock Material or Miscellaneous Articles, appropriate subclasses, for a stock material product in the form of a single or plural layer web or sheet.

474, Endless Belt Power Transmission Systems or Components, particularly subclasses 218 and 253+ for belt connectors in combination with power transmission belts to form an endless loop by connecting opposite ends of a band.

32 Tighteners:
This subclass is indented under subclass 31. Devices where the additional function permits adjustment at any time when the belt is too loose or too tight.

SEE OR SEARCH CLASS:
69, Leather Manufactures, subclass 1.5 for devices wherein initial stretch is taken out of the belt.
254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 199 for portable implements or apparatus used to tension flexible material from which the implement or apparatus is then detached after the desired amount of tension is applied.

33 Hinged:
This subclass is indented under subclass 31. Devices hinged so as to facilitate its passage over a pulley.

34 Lacing:
This subclass is indented under subclass 31. Devices for lacing belts by means of flexible laces.

SEE OR SEARCH THIS CLASS, SUBCLASS:
39, for wire lacing.
712+, for a laced-fastener*.

35 One piece:
This subclass is indented under subclass 31. Belt-fasteners which are made of a single integral piece for the entire connection or joint.

36 Deflecting prong:
This subclass is indented under subclass 35. Devices including one-piece connections in which prongs are passed through the belt and are then bent or turned over to complete the fastening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
31, for rivet-fastenings.
94+, for deflecting-prong button fastenings.

37 Screw clamp:
This subclass is indented under subclass 31. Devices fastened to the belt ends by screws.

38 Splices:
This subclass is indented under subclass 31. Devices where the belt ends are cut in various ways and spliced together to make the connection.

39 Wire:
This subclass is indented under subclass 31. Devices made of wire. This subclass includes wire-lacing devices.

SEE OR SEARCH THIS CLASS, SUBCLASS:
123, for round belts or driving-ropes.
712+, for a laced fastener*.

40 BUTTONERS:
This subclass is indented under the class definition. Devices for drawing a button into engagement with a buttonhole, used principally on gloves shoes, corsets, collars, and cuffs.

SEE OR SEARCH CLASS:
132, Toilet, subclasses 79+ for toilet kits which may include a shoe buttoner combined with other toilet devices.

41.1 CUFF HOLDER:
This subclass is indented under the class definition. Device specially adapted for the purpose of holding a separate wrist encircling cuff to a sleeve.

SEE OR SEARCH THIS CLASS, SUBCLASS:
97+, and 102+, for cuff links which close a wrist encircling cuff.
455+, for clasps.
572+, for separable fasteners.

42 Adjustable:
This subclass is indented under subclass 41.1. Cuff-holders in which adjustment of the cuff is obtained by means of a special provision in the device.

43 Sleeve clasp and button for cuff:
This subclass is indented under subclass 41.1. Devices having a clasp to grip a sleeve and a button to engage the cuff.

SEE OR SEARCH THIS CLASS, SUBCLASS:
342.1, for other clasp-button fasteners.

44 Sleeve clasp and clasp for cuff:
This subclass is indented under subclass 41.1. Cuff holders having a clasp for the cuff and a clasp for a sleeve.

SEE OR SEARCH THIS CLASS, SUBCLASS:
335, for other clasp-clasp fasteners.

45 Sleeve clasp and hook for cuff:
This subclass is indented under subclass 41.1. Cuff holders having a clasp for a sleeve and a hook to engage the buttonhole of the cuff.

SEE OR SEARCH THIS CLASS, SUBCLASS:
343+, for other clasp-hook fasteners.

46 Sleeve clasp and pin for cuff:
This subclass is indented under subclass 41.1. Cuff holders having a clasp at one end of the same and a pin-fastening at the other end.

SEE OR SEARCH THIS CLASS, SUBCLASS:
351+, for other clasp-pin fasteners.

47 Sleeve pin and button for cuff:
This subclass is indented under subclass 41.1. Devices comprising a pin-fastening for a sleeve and a button for the cuff.

SEE OR SEARCH THIS CLASS, SUBCLASS:
305, for other combined fasteners.

48 Pin fastener:
This subclass is indented under subclass 41.1. Cuff holders having a pin-fastening at one end and any form of attachment at the other end.

SEE OR SEARCH THIS CLASS, SUBCLASS:
46, for clasp-pin cuff holders.
47, for pin-button cuff holders.
356+, and 706+, for other pin fasteners.

49.1 NECKTIE FASTENER:
This subclass is indented under the class definition. Device specially adapted for properly holding a necktie on a garment for the upper part of the body.

(1) Note. Devices for engaging the fabric of the necktie band itself are included.

SEE OR SEARCH CLASS:
2, Apparel, subclasses 145 and 156 for any device, even in combination with a fastener, which is necessary or requisite in the formation of the tie, and subclass 157 for devices which consist of a tip on the band and designed to lock in some part of the necktie after having been adjusted.

50 Bands:
This subclass is indented under subclass 49.1. Devices specially adapted for fastening the band of a necktie, either to prevent the same from riding up on the collar or for the purpose of connecting the ends of the bands together.

SEE OR SEARCH CLASS:
2, Apparel, subclass 157, for special forms of band-tips used in connection with a device on the necktie itself for fastening the same.

51 End-securing pin:
This subclass is indented under subclass 50. Devices to hold the band after being drawn up to its proper position about the collar.

52 Gripping:
This subclass is indented under subclass 50. Devices comprising a clasp for gripping the band.

53 Depressors:
This subclass is indented under subclass 50. Devices which are specially designed to prevent the necktie band from riding up over the collar.

SEE OR SEARCH THIS CLASS, SUBCLASS:
62, for collar buttons with a necktie clasp.

54 Button engaging:
This subclass is indented under subclass 53. Devices including a means of a connection with the collar-button.

55 Pin or spur:
This subclass is indented under subclass 53. Devices including pin or spur attached devices.

56 Button engaging:
This subclass is indented under subclass 49.1. Devices attached to the necktie proper and adapted for engaging the collar-button.

57 Adjustable:
This subclass is indented under subclass 56. Devices including means for adjusting the position of the necktie.

58 Cord loop:
This subclass is indented under subclass 56. Devices comprising a cord loop engaging the collar-button.

59 Pivoted or sliding jaw:
This subclass is indented under subclass 56. Devices wherein the button engagement is obtained with the aid of pivoted or sliding jaws.

60 Pin attached:
This subclass is indented under subclass 56. Devices which have some form of pin-fastening to engage the necktie.

SEE OR SEARCH THIS CLASS, SUBCLASS:
56, for those devices which include mere wire attachment or those in which the prongs are bent over to permanently fasten the device.

61 Collar button combined:
This subclass is indented under subclass 49.1. Necktie-fastener combined with a collar-button.

62 Clasp attached:
This subclass is indented under subclass 61. Devices including a clasp attached to the collar-button to hold the necktie.

63 Pin attached:
This subclass is indented under subclass 61. Devices including a pin-fastener attached to the collar-button for holding the necktie in place.

64 Separable fastener:
This subclass is indented under subclass 61. Devices in which some form of separable fastener is used to connect the collar button to the necktie attachment.

65 Tie, attached hook:
This subclass is indented under subclass 49.1. Necktie-fasteners which consist of a hook which engages over the collar or neckband.

66.1 Magnetic, adhesive, or snap type fastener connects tie to shirt:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises component elements including (a) magnetic attraction, (b) adhesive or glue type material, or (c) at least two interlocking type elements which includes an element for attachment to a garment.

66.11 Ornamental:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a component designed for a pleasing and attractive appearance.

66.12 Key shaped:
This subclass is indented under subclass 66.11. Device in which the ornamental component has a shape of an implement to open a lock.

66.13 Resilient clasp:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises elastic gripping members biased together by their own resilience.

66.2 Tie engaging loop with shirt engaging fastener:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a portion that loosely surrounds the necktie and another portion which attaches to a garment.

66.3 Tie knot engaging and collar attaching:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a portion secured to the knot of a necktie interlaced part and another portion attached to the neckline part of a garment.

66.4 Tie clip and shirt clasp attaching:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a necktie gripping portion and a catch portion for securement to a garment.

66.5 Tie clip and fastening pin:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a necktie gripping portion and a garment penetrating member.

66.6 Tie pin with shirt fastener:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a necktie penetrating member portion and another portion to grip a garment.

66.7 Tie stiffener with shirt fastener:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a stiff portion for straightening a necktie and a portion to grip a garment.

66.8 With pivotal jaws having spring means:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises at least one pair of gripping members hingedly secured to each other upon an axis and a distinct means for resiliently biasing the two members into a clamping position.

66.9 Slider:
This subclass is indented under subclass 49.1. Device in which the necktie holder comprises a generally tubular shaped portion which is configured to surround the necktie.

67 PAPER FASTENER:
This subclass is indented under the class definition. Device including means to clamp or adhere a sheet-like body to a base or to a second sheet-like body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
455+, for clasps*, clips* or support-clamps*.
706+, for paper pin-fasteners.

SEE OR SEARCH CLASS:
40, Card, Picture, or Sign Exhibiting, subclasses 530+ for a hinge mounted display item (e.g., sheet, etc.), subclasses 388+, for a hinge-mounted file item.
211, Supports: Racks, appropriate subclasses for built-up open structures (e.g., racks, frames, etc.), including sheet holding means.
225, Severing by Tearing or Breaking, subclasses 27+ for a severing device of this class in combination with clamp holding means for securing a pad, a book or a stack of individual sheets, which sheets are severed (e.g., ripped, torn, broken, etc.), by manually forcing a portion of the sheet against a fixed edge of the severing device.
281, Books, Strips, and Leaves, subclasses 45+ for a book or leaf holder of that class.
312, Supports: Cabinet Structure, appropriate subclasses for a cabin of that class including sheet holding means (e.g., clamp, follower, etc.), disposed therein. (See especially subclasses 183+).
402, Binder Device Releasably Engaging Aperture or Notch of Sheet, appropriate subclasses, for a device including a sheet retainer which passes through a sheet opening and releasably secures such sheet.

67.1 With screw threaded or notch engaging securing means:
This subclass is indented under subclass 67. Device wherein the clamping action of the clamp means is accomplished by means in the

form of (1) a series of discreat recesses or (2) a continuous helical groove.

SEE OR SEARCH CLASS:
402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclasses 46+ for sheet retainers which may include notched or threaded securing means.

67.11 Mounted on support means:
This subclass is indented under subclass 67.9. Device wherein the clamp means is mounted on a base which base underlies a portion of the sheet.

67.3 Resiliently biased:
This subclass is indented under subclass 67. Device wherein the clamping action of the clamp means is accomplished by spring-like elastic means.

SEE OR SEARCH THIS CLASS, SUBCLASS:
67, for a fastener of a readily deformable material which is bent to engage and secure the paper.
67.1, for a resiliently biased fastener including a screw-threaded or notched securing means.

SEE OR SEARCH CLASS:
402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclasses 70+ for a similar device wherein that portion of the fastener engaging the sheet includes means (e.g., teeth, etc.), which penetrate the sheet.

67.5 Including means to open or close fastener:
This subclass is indented under subclass 67.3. Device provided with manipulating means (e.g., handle) operable to disengage or engage the clamp means.

67.7 Pivotally mounted on pintle:
This subclass is indented under subclass 67.5. Device wherein the means to manipulate the clamp means open is rotatably mounted on one or more discrete hinge pins.

67.9 One piece:
This subclass is indented under subclass 67.3. Device wherein the paper clamp means is a unitary body.

68 STRAP TIGHTENERS:
This subclass is indented under the class definition. Devices usually used in place of buckles on shoes, gloves, corsets, belts, etc. The distinction from other forms of fastenings lies in the drawing-up or strap-tightening feature of the device.

SEE OR SEARCH THIS CLASS, SUBCLASS:
19, for strap tighteners.

SEE OR SEARCH CLASS:
36, Boots, Shoes, and Leggings, subclasses 64+ for this device with detachable antislipping means for shoes, boots, etc.
54, Harness for Working Animal, subclass 27 for this device in combination with a harness hame.
152, Resilient Tires and Wheels, subclasses 241+ for tighteners in combination with resilient tire antiskid devices.
254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 199+ for portable implements or apparatus used to tension flexible material (e.g., straps) from which the implement or apparatus is then detached after the desired amount of tension is applied.
292, Closure Fasteners, subclass 246 for bolts in the form of swinging loops, bails or open links.

69 Cam lever and loop:
This subclass is indented under subclass 68. Devices comprising levers, usually pivoted, which pass through a loop and are turned down, the parts being drawn together by this movement.

70 Step adjusted:
This subclass is indented under subclass 69. Devices adjustable by means of a step-by-step movement.

71 Strap-attached folding lever:
This subclass is indented under subclass 68. Devices wherein a lever and a strap are permanently connected together.

71.1 Midline:
This subclass is indented under subclass 68. Devices adapted to be attached to a wire or other line at a point in its length and to take up slack, remaining a permanent part of the line. Combinations of said device with tools for use particularly therewith are here.

SEE OR SEARCH THIS CLASS, SUBCLASS:
115+, for mere cord and rope adjusters not having a drawing up or tightening feature.

SEE OR SEARCH CLASS:
211, Supports: Racks, subclass 119.15, for midline tighteners combined with clothesline props.
242, Winding, Tensioning, or Guiding, subclasses 388.1+ for a reeling device adapted to grip a midportion of an elongated material which may include a midline tightener.
267, Spring Devices, subclasses 69+ for midline tighteners in the form of mere spring devices.

72.1 TROUSER GUARDS, CLIPS, STRAPS (E.G., ABOVE SHOETOPS):
This subclass is indented under the class definition. Device specially adapted for binding or holding to the lower leg of the user the lowest portion of a garment that extends from the waist to the shoetops.

SEE OR SEARCH THIS CLASS, SUBCLASS:
530+, for circular resilient clasps*.

SEE OR SEARCH CLASS:
2, Apparel, subclasses 47, 222, and 232 for the combination of a fastener and a garment.
36, Boots, Shoes, and Leggings, subclasses 56 and 70 for the combination of a device and boots, shoes, etc.

72.5 BEDCLOTHES HOLDERS:
This subclass is indented under the class definition. Devices specially adapted for holding bedclothes in position.

(1) Note. See the search notes to this subclass located under subclass 455 for the classification line maintained between this subclass and subclasses 455+ during the reclassification of the clasp*, clip*, or support-clamp* art. No attempt was made to transfer patents not conforming to this line from the bedclothes holder subclass to the clasp*, clip*, or support-clamp* subclasses during the reclassification of the clasp*, clip*, or support-clamp* art.

SEE OR SEARCH CLASS:
5, Beds, subclasses 494 and 498 for devices accessory to a bed for holding bedclothes in close position over the sleeper or for holding such clothes closely to the bed when up-ended.

72.7 T-HEAD NONGRIPPING, FABRIC ENGAGING TYPE:
This subclass is indented under the class definition. Devices comprising nongripping type fasteners for use with frames or other apparatus in the stretching of a fabric, hide, or other sheet material, having (1) a leading end (e.g., a rigid arm or flexible strand) adapted to pass through an opening in the material sheet, and (2) a trailing end (the cross-bar of the T) which trailing end is too large to pass through the opening so that when the leading end is tensioned, the cross-bar exerts a pull on the sheet material.

SEE OR SEARCH THIS CLASS, SUBCLASS:
41.1, for cuff holders.
67, for paper fasteners.
90.1+, especially subclass 102 for buttons.
115+, for cord and rope holders.
230.5, for hooks.
265, for strap-end-attaching devices.
435, for an independent, headed, aperture-pass-through fastener.
573+, for a three part separable-fastener*

SEE OR SEARCH CLASS:

16, Miscellaneous Hardware, subclasses 4+ for stretching type carpet fasteners.

38, Textiles: Ironing or Smoothing, subclasses 102+ for textile sheet stretching and spreading apparatus; e.g., subclasses 102.1+, for a stretching frame.

69, Leather Manufactures, subclass 1.5 for leather, canvas or other belt stretching apparatus and subclasses 19.1+ for a skin or hide stretcher.

118, Coating Apparatus, subclass 33 for coating apparatus combined with stretching means.

140, Wireworking, subclasses 108+ for wire fabric stretching apparatus and subclasses 123.5+ for wire stretching implements.

160, Flexible or Portable Closure, Partition, or Panel, subclasses 328+ for means to engage opposite edges of a fabric panel to mount and stretch the same, and subclasses 372+ and 378 for fabric panels mounted in frames having fabric stretching features.

89 INTERCHANGEABLE BUTTON LOOP AND PIN:

This subclass is indented under the class definition. Devices provided with button-engaging parts and also with a pin-fastening, the pin-fastening being designed to be used when the other fastening gives out for any reason.

90.1 BUTTON WITH FASTENER:

This subclass is indented under the class definition. Device comprising a disk-shaped body and the various means for attaching the body onto a supporting substrate (e.g., a garment).

SEE OR SEARCH THIS CLASS, SUBCLASS:

111, for buttons with separate thread bars.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclass 315 for a button carrying indicia.

428, Stock Material or Miscellaneous Articles, subclasses 3+ for ornamental features on buttons.

90.5 Loss-preventing devices:

This subclass is indented under subclass 90.1. Buttons having devices additional to the conventional parts of a button for guarding against unbuttoning and devices peculiar to that use.

91 Adjustable:

This subclass is indented under subclass 90.1. Buttons usually used as collar-buttons in which there is some means for adjusting the button.

92 Cloth shanks and covers:

This subclass is indented under subclass 90.1. A button having a shank made of cloth for use in attaching the button. Also includes buttons covered with cloth.

93 Multiple attachment:

This subclass is indented under subclass 90.1. Devices in which several buttons are fastened on by means of a common fastener.

94 Deflecting prong or rivet:

This subclass is indented under subclass 90.1. Devices having fasteners in which metal prongs or rivets are bent over or upset in attaching the button.

95 Anvil or plate:

This subclass is indented under subclass 94. Devices provided with a part which deflects the prongs by contact and pressure thus doing away with riveting tools.

96 Integral:

This subclass is indented under subclass 94. Devices where the prongs or rivets are a part of the button or are firmly attached and are pushed through the material, being clenched on the opposite side. Those using washers are also included if they have no part in deflecting the prongs.

SEE OR SEARCH THIS CLASS, SUBCLASS:

146, for hook-stud lacing devices.

97 Hinged leaf:

This subclass is indented under subclass 90.1. Devices where the button is of the type in which movable leaves permit the easy insertion of the button in the buttonhole, after which the leaves prevent the withdrawal of the button.

SEE OR SEARCH THIS CLASS, SUBCLASS:
609+, for separable-fastener* projection having pivotally connected components.

98 Axially rotating:
This subclass is indented under subclass 97. Devices where the leaves swing about the axis of the button.

99 Double:
This subclass is indented under subclass 97. Devices having two hinged leaves. It does not include those in which there is one hinged leaf and one rigid leaf, these being found in subclass 97.

100 Sliding:
This subclass is indented under subclass 97. Devices where there is a sliding movement of the leaf. It includes those in which there is a combined pivoted and sliding movement.

SEE OR SEARCH THIS CLASS, SUBCLASS:
100.5, for sliding bar type buttons and fasteners.

100.5 Sliding bar:
This subclass is indented under subclass 90.1. Buttons having a transversely sliding member which is retracted for the purpose of removing the button.

SEE OR SEARCH THIS CLASS, SUBCLASS:
100, for sliding hinged leaf type.

101 Integral or rigid stud:
This subclass is indented under subclass 90.1. Buttons of the collar or cuff button type which are either made of one piece or are so built up as to be a rigid button when complete, and thus equivalent to an integral button.

SEE OR SEARCH THIS CLASS, SUBCLASS:
90.1, for other one-piece buttons, such as those which are to be sewed on. for button pads.
713.9+, for a hook shaped lace directing means.

102 Link:
This subclass is indented under subclass 90.1. Buttons with two heads, adapted for use on cuffs, mattress tufting, and similar uses.

SEE OR SEARCH CLASS:
5, Beds, subclasses 408 and 696, for tufted mattresses and cushions.
29, Metal Working, subclasses 91+ for upholstery making.

103 Pin attached:
This subclass is indented under subclass 90.1. Buttons, badges, etc., which are attached to the garment by means of a pin, provide the invention lies in the pin fastening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
63, for collar button type.

104 Separable:
This subclass is indented under subclass 90.1. Buttons of the type in which two parts are adapted to be joined together or separated at will.

SEE OR SEARCH THIS CLASS, SUBCLASS:
64, for separable fasteners in necktie-collar button combinations.
572+, for other separable fasteners.

105 Screw:
This subclass is indented under subclass 104. Devices where one part is screwed into another part.

106 Spring:
This subclass is indented under subclass 104. Devices where the two parts are sprung together.

107 Resilient head:
This subclass is indented under subclass 106. Devices which have resilient or spring heads and rigid sockets.

108 Resilient socket:
This subclass is indented under subclass 106. Devices where the socket member contains the resilient part.

109 Rotating head:
This subclass is indented under subclass 106. Devices where the head is rotated to connect or disconnect the two members.

SEE OR SEARCH THIS CLASS, SUBCLASS:
590+, for head and socket type fasteners with rotating head.

110 With operating devices:
This subclass is indented under subclass 106. Devices where the two parts are sprung together, and there is some independent device which must be operated to release the parts.

111 Separate thread bar:
This subclass is indented under subclass 90.1. Devices where the thread-bar is a separate piece.

SEE OR SEARCH THIS CLASS, SUBCLASS:
90.1+, for integral and other thread-bars.

112 Spiral fastener:
This subclass is indented under subclass 90.1. Devices where the engaging part is a spiral which is screwed into the buttonhole.

113 Covers:
This subclass is indented under subclass 90.1. Devices relating to the cover of the button or in the mode of applying the same. Usually the idea is to permit the use of various covers as occasion arises.

SEE OR SEARCH CLASS:
40, Card, Picture, or Sign Exhibiting, subclass 315 for devices to be applied to buttons carrying indicia such as conductor, motorman, etc.
63, Jewelry, subclasses 26+ for devices for attaching stones or like ornaments, even though to a button, and the devices are not peculiar to buttons.

114 Pads:
This subclass is indented under subclass 90.1. Devices with protecting-pads so attached to the buttons that metallic contact with the skin is prevented.

114.05 Button with shank for friction grip fastener:
This subclass is indented under subclass 90.1. Device in which the disk-shaped body comprises a shaft portion, extending from a rear face of the body, adapted to be securely inserted into a receiving hole of a dissociable mating member.

114.1 Flexible button:
This subclass is indented under subclass 90.1. Device in which the disk-shaped body is made of an elastic material to permit the body to flex so as to pass through a buttonhole.

114.11 For cuff or collar:
This subclass is indented under subclass 90.1. Device in which the disk-shaped body is designed to secure either a wrist encircling portion or a neck encircling band of a shirt.

114.12 Fabric embracing:
This subclass is indented under subclass 90.1. Device in which the disk-shaped body is covered with a piece of cloth.

114.2 Swivel button:
This subclass is indented under subclass 90.1. Device in which the disk-shaped body comprises a peripheral portion which can be freely revolved on a central supporting structure when attached to the garment.

114.3 Tufting type:
This subclass is indented under subclass 90.1. Device in which the disk-shaped body is for upholstery.

SEE OR SEARCH CLASS:
5, Beds, subclass 696 for an uphostered mattress or cushion which has tufting.

114.4 Button with cavity for friction grip fastener:
This subclass is indented under subclass 90.1. Device wherein the disk-shaped body contains a bore, indentation, or slot into which a complementary portion of the attaching means is placed for securement.

114.5 STRAP CABLE OR PIPE BUTTON:
This subclass is indented under the class definition. Devices forming a part of or in the nature of an attachment to strap, chain, cable, pipe or the like, constituting an enlargement thereof

and designed for use as a trip or obstacle to the free passage of said strap, chain, cable or pipe through other members.

SEE OR SEARCH CLASS:

59, Chain, Staple, and Horseshoe Making, subclass 93 for chain attachments.

175, Boring or Penetrating the Earth, particularly subclass 422 for a clasp (e.g., a well slip assembly) which separately travels with an earth boring shaft or which cooperates with specifically shaped well structure which stops or actuates the clasp.

114.6 Heat or adhesive secured type:

This subclass is indented under subclass 90.1. Device in which the disk-shaped body is attached by means of either (a) a thermally fusible material, or (b) an adhesive or glue type material.

114.7 Thread or wire through apertured button:

This subclass is indented under subclass 90.1. Device in which the disk-shaped body is attached by means of a filament type material through holes in the body.

114.8 Eye shank type button:

This subclass is indented under subclass 90.1. Device in which the disk-shaped body comprises a shaft portion extending from a rear face of the body and turning into a loop to receive the attachment means.

114.9 Ornamental type:

This subclass is indented under subclass 90.1. Device in which the disk-shaped body is designed for a pleasing and attractive appearance.

115 CORD AND ROPE HOLDERS:

This subclass is indented under the class definition. Devices for gripping and holding cord, rope, wire, and, in some cases, chain, when the device is analogous. Devices for holding or gripping the end of a strap or band, but which are not properly buckles, have been placed in Rope-holders. These devices are usually as well adapted for rope as for bands and are more commonly used as hitching-strap holders.

(1) Note. See the search notes to this subclass located under subclasses 455 and 572, respectively, for the classification lines maintained between this subclass (and its indented subclasses) and subclasses 455+ and 572+ during the reclassification of the clasp* and separable-fastener* art. No attempt was made to transfer patents not conforming to these lines from the cord and rope holder subclasses to the clasp* or separable-fastener* subclasses during the reclassification of the clasp* and separable-fastener* art.

SEE OR SEARCH THIS CLASS, SUBCLASS:

18, for packet holders.

455+, for a cord or rope engaging fastener which is a component of a clasp* and holds one portion of a cord or rope relative to another portion of a cord or rope where the cord or rope is utilized as an encircling griping surface and does not have another principal function (i.e., it is not the structure-to-be-secured* since it lacks principle utility outside this class).

572+, for a separable-fastener component* located on the end of a cord or rope which does not utilize any of the characteristics of the cord or rope in the fastening operation (i.e., its ability to bend) and for cord or rope engaging structure which is a component of a separable-fastener* wherein the cord or rope has no other disclosed utility other than use in a separable-fastener* (i.e., it is not a structure-to-be-secured* since it lacks principle utility outside this class).

712.1+, for a device for holding a drawn portion of lacing.

SEE OR SEARCH CLASS:

16, Miscellaneous Hardware, subclasses 202+ for devices for anchoring the ends of sash cords.

104, Railways, subclasses 202+ for cable-grippers analogous in some respects to cord and rope holders.

114, Ships, subclass 199, 218 for devices analogous to cord and rope holders, but specially adapted for ship use.

182, Fire Escape, Ladder, or Scaffold, subclasses 5+ for a strand engaging device with torso harness.

188, Brakes, subclasses 65.1+ for strand brakes for those devices in which a pulley by its peculiar construction acts as the rope grip and also those in which a clamping part cooperates with a pulley to grip the rope, but where a mere guide bar or pulley is included as an independent element or where any form of pivoted cam is found it is not considered to be a pulley, and the patents are classified in this subclass.

211, Supports: Racks, subclasses 119.01+ for rope holders combined with flexible clotheslines trained between isolated supports.

212, Traversing Hoists, subclasses 106+ for rope-holders which coact with a button or the like on the rope, and 110+ for devices which grip the rope to hold it.

242, Winding, Tensioning, or Guiding, subclasses 388.1+, and 398+ for a reeling device of general use and subclass 125 for a device for holding a thread.

248, Supports, subclass 32 for cord retainers for suspended pictures, subclasses 49+ for pipe or cable clamps combined with their supports or limited by structure to use for supporting a pipe or cable and subclass 353 for rope holders combined with clothesline props.

251, Valves and Valve Actuation, subclasses 4+ for similar structures in tube compressors for controlling fluid flow.

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 408 for cable guides designed to grip the cable between the pulley and its support.

269, Work Holders, appropriate subclasses. Class 269 is the residual locus for patents to a device for clamping, supporting and/or holding an article (or articles) in position to be operated on or treated. See notes thereunder for other related loci.

383, Flexible Bags, subclasses 71+ for a bag closure or cord.

410, Freight Accommodation on Freight Carrier, subclasses 101+ for an anchor to secure an end of a load lashing member to a freight carrying vehicle so that the remainder of the member may be used to lash a freight load unit to the vehicle.

116 Chain:

This subclass is indented under subclass 115. Devices similar to cord-holders but in which a chain is held instead of a cord.

SEE OR SEARCH CLASS:

59, Chain, Staple, and Horseshoe Making, subclass 93 for various devices attached at or intermediate the ends of the chain and becoming a part of and being used in connection with the chain, and see the notes thereto.

122.3 Sheathed strand:

This subclass is indented under subclass 115. Devices specially designed for gripping or holding a sheathed strand, i.e., a cord, rope or other flexible strand which is enclosed in a tubular covering therefor.

(1) Note. The term “covering” as herein used, includes, for example, coatings of fibrous, plastic, or other material, and also armors or sheaths formed of wires concentrically arranged about a central core-strand.

SEE OR SEARCH THIS CLASS, SUBCLASS:

122.6, for cord or rope holders specialized for gripping or holding plural-strand cords or ropes other than those of the armored or central core type.

SEE OR SEARCH CLASS:

174, Electricity: Conductors and Insulators, subclasses 74 through 94 for connector and terminal devices for armored sheathed, or insulated electrical conductors.

439, Electrical Connectors, appropriate subclasses for electrical connectors, per se, having in many instances structure similar to that provided for

in Class 24 and often specially designed to grip or hold a sheathed conductive strand, cable, or wire; and see the class definition of that class (439), for the line between Classes 24 and 439.

122.6 Plural-strand cord or rope:
This subclass is indented under subclass 115. Devices specialized for gripping or holding cords or ropes which are formed from a plurality of strands twisted together or otherwise assembled into a unitary structure. These devices are characterized by having a structure or mode of operation (a) which requires or causes the separation (as by untwisting, bending back, etc.) of the individual strands of the cord, rope, or cable, or (b) in which individual strands of a cord, rope, or cable are separately gripped or held.

SEE OR SEARCH THIS CLASS, SUBCLASS:
122.3, for similar devices when some of the strands of the cord, rope, or cable are arranged to form an armor or covering for a central core.

SEE OR SEARCH CLASS:
174, Electricity: Conductors and Insulators, subclasses 74 through 90 for connectors and terminal devices for plural-strand electrical conductors.
439, Electrical Connectors, appropriate subclasses for electrical connectors, per se, having in many instances structure similar to that provided for in Class 24 and often specially designed to grip or hold a plural-strand conductive cable, or wire, and see the class definition of that class (439), section IV for the line between Classes 24 and 439.

127 Friction disk:
This subclass is indented under subclass 115. Devices wherein the cord or rope is wound around a central portion and is held by a disk, which frictionally engages the cord.

SEE OR SEARCH THIS CLASS, SUBCLASS:
712.9, for a device which holds a drawn portion of lacing by either winding it about or wedging it in the device.

128 Knot engaging:
This subclass is indented under subclass 115. Devices wherein the cord is knotted at suitable points and the holding device is designed to make use of the knots to hold the cord after tightening.

129 One-piece:
This subclass is indented under subclass 115. Devices in which only one integral piece is used.

SEE OR SEARCH CLASS:
174, Electricity: Conductors and Insulators, subclasses 174 and 175 for similar electrical cord holders.
188, Brakes, subclasses 65.1+ for strand-type brakes having similar holders.

130 Wedge slot:
This subclass is indented under subclass 129. Devices wherein a V-shaped slot catches the cord or rope when properly positioned.

131 Wire:
This subclass is indented under subclass 129. Devices made of wire.

132 Pivoted part:
This subclass is indented under subclass 115. Devices wherein a pivoted part enters into the construction of the rope-gripping device.

SEE OR SEARCH THIS CLASS, SUBCLASS:
712.6, for a device having a pivoted part for engaging and holding a drawn portion of lacing.

133 Lever tension:
This subclass is indented under subclass 132. Devices wherein an extra lever or arm projects from this device, and the rope passing over the same by its tension forces the pivoted part into closer engagement with the rope.

134 Cam lever:
This subclass is indented under subclass 132. Devices wherein the pivoted part is so constructed that tension on the rope pulls the pivoted part more tightly into the rope, the pivoted part being either cam-shaped or equivalent thereto in its action.

SEE OR SEARCH CLASS:
188, Brakes, subclass 65.1 for similar structure in brake combinations.

135 Screw clamp:
This subclass is indented under subclass 115. Devices wherein the gripping is caused by turning a screw or bolt either in a nut or a part of the device itself.

SEE OR SEARCH THIS CLASS, SUBCLASS:
125, for screw clamp couplings.

SEE OR SEARCH CLASS:
174, Electricity: Conductors and Insulators, subclasses 169+ for insulators with similar structure.
188, Brakes, subclass 65.1 for similar structure in brake combinations.
439, Electrical Connectors, subclasses 778+, 781+, 784, 785, 791+, 797+, and 801+ for an uninsulated electrical connector having a screw-threaded operated securing part.

136 Sliding part or wedge:
This subclass is indented under subclass 115. Devices wherein a sliding movement is used in clamping the cord. It includes wedges which slide and like devices.

SEE OR SEARCH THIS CLASS, SUBCLASS:
126, 171, 194, for other fasteners having a sliding wedge.

SEE OR SEARCH CLASS:
188, Brakes, subclasses 65.1+ for similar structure in brake combinations.
227, Elongated-Member-Driving Apparatus, subclass 29 for similar structure in fire escape combinations.

163 BUCKLES:
This subclass is indented under the class definition. Devices which are designed for the purpose of adjusting as well as holding straps, bands, and similar articles. Some forms of buckles are closely related to clasps in structure, but are always distinguished in having provision for the band passing through the structure, so that it may be pulled tight for the purpose of adjustment, a clasp being only suitable for gripping the end or edge of the material or band.

SEE OR SEARCH THIS CLASS, SUBCLASS:
16+, for bale ties.
115+, for devices which resemble buckles, but are more closely related to cord and rope holders in structure as well as use. The more common use of these devices is as hitching-strap holders.

SEE OR SEARCH CLASS:
2, Apparel, subclasses 321+ and 333, for buckle type fastening devices in combination with a garment supporter.
D2, Apparel and Haberdashery, subclasses 405+ for designs for apparel buckles.

164 Harness:
This subclass is indented under subclass 163. Buckles peculiarly adapted for use in harness constructions or with leather straps.

SEE OR SEARCH CLASS:
54, Harness for Working Animal, subclasses 28, 50, 54+ for combined buckles and hooks, and subclass 74 for rein holds.

165 Combined buckles and snap hooks:
This subclass is indented under subclass 164. Devices in which a buckle and snap-hook are combined in the same structure, sometimes with a working connection between the buckle-tongue and the snap-hook closure.

SEE OR SEARCH CLASS:
54, Harness for Working Animal, subclasses 51 and 55 for similar structure in harness combinations.

166 Lock:
This subclass is indented under subclass 164. Devices with independent means to prevent the tongue of the buckle from disengaging.

167 Key:
This subclass is indented under subclass 166. Devices wherein the means which locks the tongue is operated by means of a key.

SEE OR SEARCH CLASS:
70, Locks, appropriate subclasses for specific lock structure, per se.

168 Clamping:
This subclass is indented under subclass 164. Devices in which the strap is held by clamping solely, without any penetrating tongue or stud.

169 One-piece:
This subclass is indented under subclass 168. Devices made of a single integral part.

SEE OR SEARCH THIS CLASS, SUBCLASS:
198, for one piece buckles.

170 Pivoted part or lever:
This subclass is indented under subclass 168. Devices in which the clamping is done by a jaw attached to a pivoted lever usually hand-operated, but includes strap-tightened jaws.

SEE OR SEARCH THIS CLASS, SUBCLASS:
191+, for other pivoted lever buckles.

171 Sliding part or wedge:
This subclass is indented under subclass 168. Devices in which the gripping of the strap is accomplished by means of a sliding part, commonly a wedge, wedge-like in action.

SEE OR SEARCH THIS CLASS, SUBCLASS:
25, and 194, for other fasteners having a sliding part.

172 Cross bails:
This subclass is indented under subclass 164. Devices including two frames or bails, both of which form loops entirely inclosing the straps and so interlaced that a tension on the strap throws the bails into such a position as to more tightly grip the same. Studs or tongues are sometimes used in connection with the clamping action. This subclass contains those which depend entirely on the clamping action.

173 Pivoted stud plate:
This subclass is indented under subclass 172. Devices including a pivoted plate with a penetrating stud attached to one of the frames to further assist in holding the straps.

174 Rigid stud:
This subclass is indented under subclass 172. Devices including a stud attached rigidly to one of the frames.

175 Guarded:
This subclass is indented under subclass 164. Devices having a penetrating tongue which is protected by some device, so as to prevent the point from engaging or catching.

176 One-piece:
This subclass is indented under subclass 164. Devices having a penetrating tongue and which the frame and stud are in one integral piece.

SEE OR SEARCH THIS CLASS, SUBCLASS:
186+, for one piece buckles with a penetrating prong.

177 Multiple:
This subclass is indented under subclass 164. Devices having two or more penetrating tongues or studs.

178 Pivoted:
This subclass is indented under subclass 164. Devices having a penetrating tongue pivoted to the frame.

SEE OR SEARCH THIS CLASS, SUBCLASS:
188+, for buckles with a pivoted penetrating prong.

179 Lever actuated:
This subclass is indented under subclass 178. Devices wherein a lever is attached to the pivoted tongue for withdrawing the tongue from engagement with the strap without first loosening the buckle.

180 Stud:
This subclass is indented under subclass 178. Devices wherein a pivoted stud is used instead of a tongue, the distinction being that a stud passes vertically through the strap and has no support on the frame, as is the case with a tongue-buckle.

181 Sliding part or wedge:
This subclass is indented under subclass 164. Devices in which the gripping of the strap is accomplished by means of a sliding part, usually wedge-like, and there is a penetrating tongue or stud to further assist in holding the strap.

SEE OR SEARCH THIS CLASS, SUBCLASS:
194+, for other buckles having a sliding part.

182 Strap loops and attaching devices:
This subclass is indented under subclass 164. Devices for holding the strap end after buckling and means for attaching the same to a fabric, otherwise called "billet-loops".

SEE OR SEARCH CLASS:
54, Harness for Working Animal, subclasses 28 and 32 for similar structure in harness combinations.

183 Loop shields:
This subclass is indented under subclass 164. Devices attached to buckles for preventing wear on the strap, being so designed that the attaching device engages with the metal of the buckle and not on the strap.

SEE OR SEARCH CLASS:
54, Harness for Working Animal, subclass 28 for similar structure in harness combinations.

184 Garment shielded:
This subclass is indented under subclass 163. Buckles which are so constructed that no metal part of the buckle will come in contact with the garment underneath.

185 Hook attached:
This subclass is indented under subclass 163. Buckles in which a pressure-bar clamps the band and has at the same time a projection which guards the hook, usually used as a suspender-buckle.

186 One-piece:
This subclass is indented under subclass 163. Devices in which prongs are the means of holding the strap or band, and which are in one integral piece.

SEE OR SEARCH THIS CLASS, SUBCLASS:
176, for one piece buckles with penetrating tongues.

187 Hook attached:
This subclass is indented under subclass 186. Devices which have a hook attached.

188 Pivoted:
This subclass is indented under subclass 163. Devices in which the buckle-frame and a penetrating prong are pivoted together.

SEE OR SEARCH THIS CLASS, SUBCLASS:
178+, for buckles with pivoted penetrating prongs.

189 Hook attached:
This subclass is indented under subclass 188. Devices which have a suspending hook attached.

190 Slide:
This subclass is indented under subclass 163. Devices wherein the frame and a penetrating prong part are adapted to slide on each other to cause engagement.

191 Pivoted lever:
This subclass is indented under subclass 163. Devices wherein a lever pivoted to the buckle-frame serves as the clamping means. It may be either hand- operated or it may have the band attached to it. The gripping-jaws may be toothed or smooth.

SEE OR SEARCH THIS CLASS, SUBCLASS:
78, and 170, for other pivoted lever buckles.

192 Hook attached:
This subclass is indented under subclass 191. Devices which have suspending hooks.

193 Looped strap:
This subclass is indented under subclass 191. A pivoted-lever buckle in which a looped-strap-clamping device is used.

194 Sliding part of wedge:
This subclass is indented under subclass 163. Buckles which have a sliding part which serves to clamp the fabric either wedge-like or by pressing a toothed jaw into the same. Includes devices in which a separate part engages the two jaws and is moved back and forth to operate the same.

SEE OR SEARCH THIS CLASS, SUBCLASS:
171, and 181, for similar structure in harness buckles.

195 Hook attached:
This subclass is indented under subclass 194. Devices with a suspending-hook attached.

196 Looped strap:
This subclass is indented under subclass 194. Devices wherein the sliding part passes through a looped strap and is drawn down to clamp the fabric.

197 Looped strap:
This subclass is indented under subclass 163. Devices wherein the clamping of the strap or band is accomplished by means of looping or doubling the band on itself, the two portions of the band being pressed into contact in such a manner as to grip and hold.

SEE OR SEARCH THIS CLASS, SUBCLASS:
193, 196 and 200, for other "looped strap" buckles.

198 One-piece:
This subclass is indented under subclass 163. Buckles composed of one piece of metal.

SEE OR SEARCH THIS CLASS, SUBCLASS:
169, 176 and 186, for other one piece buckles.

199 Hook attached:
This subclass is indented under subclass 198. Devices wherein a supporting-hook is an integral part of the buckle.

200 Looped strap:
This subclass is indented under subclass 198. Devices wherein the band is held by means of looping or doubling the band.

265 STRAP-END-ATTACHING DEVICES:
This subclass is indented under the class definition. Devices for attaching the strap or band to buckles, clasps, snap-hooks, and like articles, including permanent attaching means, and also those temporary attachments which are not properly buckles or any other recognized form of fastening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
2.5, for gun band type devices combined with strap-end-attaching devices.
715.4+, for means to cover the tip of lacing.

SEE OR SEARCH CLASS:
16, Miscellaneous Hardware, subclasses 108+ for ferrules, rings and thimbles.

267 PIVOTED EDGE STAYS:
This subclass is indented under the class definition. Devices which consist of two parts or jaws pivoted at one end and having some means for locking the jaws when in a closed position. They are commonly used on gloves, shoes, and dress-plackets and take the place of other fastenings.

SEE OR SEARCH CLASS:
2, Apparel, subclass 218 for similar structure in placket closures.

268 Wedge:
This subclass is indented under subclass 19. Devices wherein the tightener comprises a wedge.

269 Winder:
This subclass is indented under subclass 19. Devices wherein the tightening is accomplished by winding a portion of the strap on winder means, which remains with the tie.

270 Self-locking (dead center or snap action):
This subclass is indented under subclass 19. Devices which include a tightening means, usually a lever, that is self-locking either by dead center or snap action.

271 Adjustable girth:
This subclass is indented under subclass 270. Devices with means providing for variations in the circumference of the objects to be clamped.

272 Rack bar:
This subclass is indented under subclass 271. Devices in which the fastener connection includes a rack bar and means coacting therewith.

273 Lever:
This subclass is indented under subclass 19. Devices in which the tightening is accomplished by lever means and may include separate lever locking means to retain the lever in tightening position.

SEE OR SEARCH THIS CLASS, SUBCLASS:
270, for similar devices with self-locking lever means having auxiliary locking devices.

274 Worm and tooth:
This subclass is indented under subclass 19. Devices wherein worm gear means on the tightener co-acts with a strap portion provided with teeth.

275 Integral thread:
This subclass is indented under subclass 19. Devices in which a means on the fastener portion engages a thread on the integral free end portion of the strap or band.

276 External thread:
This subclass is indented under subclass 275. Devices wherein the thread is on the external surface of the strap or band.

277 Both ends threaded:
This subclass is indented under subclass 276. Devices in which the free ends of the strap are threaded.

278 Radial screw:
This subclass is indented under subclass 19. Devices in which a radial screw, with respect to the axis of the strap or band, engages means to effect tightening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
275+, for screws on the integral free end portions of the straps.

279 Tangential screw:
This subclass is indented under subclass 19. Devices in which a tangential screw, with respect to the axis of the strap, engages means to effect tightening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
275+, for screws which are integral end portions of the straps.

280 Adjustable girth:
This subclass is indented under subclass 279. Devices having girth adjustment afforded by the connection between the tie and the fastener. The fastener may be wholly or partially separable from the tie.

SEE OR SEARCH THIS CLASS, SUBCLASS:
284, in which the tie itself has features which provide for girth adjustment.

281 Step adjustment:
This subclass is indented under subclass 280. Devices providing for step adjustment.

282 Plural separable parts:
This subclass is indented under subclass 281. Devices in which the strap is of plural separable parts.

283 Wire:
This subclass is indented under subclass 279. Devices which are constructed of wire.

SEE OR SEARCH THIS CLASS, SUBCLASS:
27+, for ties constructed of wire where the tightening is by a separate tool.
270+, for wire ties having a dead center or snap action.

284 Plural separable parts:
This subclass is indented under subclass 279. Devices with straps comprising separable parts and which may also provide adjustment of the strap solely by strap features.

285 Pivotal strap parts:
This subclass is indented under subclass 279. Devices wherein the strap is comprised of pivoted parts.

SEE OR SEARCH THIS CLASS, SUBCLASS:
284, for straps of separable pivoted parts.

286 Plural wrap:
This subclass is indented under subclass 279. Devices which have straps modified to permit winding plural wraps with the ends of the strap aligned to accept the fastener means.

287 FREIGHT CONTAINER TO FREIGHT CONTAINER FASTENER:
This subclass is indented under the class definition. Subject matter drawn to fasteners specifically adapted for securing freight-container structures together.

SEE OR SEARCH CLASS:
206, Special Receptacle or Package, subclass 159 for portable segregating containers for plural cylindrical-type receptacles provided with a clip-type retainer between juxtaposed receptacles.
220, Receptacles, subclasses 1.5+ for freight containers provided with freight-container fasteners.

288 DRUM OR CAN SPACER FASTENER:
This subclass is indented under the class definition. Subject matter drawn to fasteners specifically adapted for securing containers, drums, or cans in a spaced relationship.

289 TRIM MOLDING FASTENER:
This subclass is indented under the class definition. Subject matter comprising a fastener specially adapted for securing a rigid or semirigid decorative strip to a rigid vehicle or similar body.

SEE OR SEARCH CLASS:
49, Movable or Removable Closures, subclass 492 for snap-type fasteners securing a closure seal.
52, Static Structures (e.g., Buildings), subclass 466 for separate anchor element securing a nonsustaining bridged strip over junctures of panels; subclass 511 for mounting means attaching a facer to an upholstery structure; subclasses 718.01+ for fasteners combined with static structures for attaching a striplike channel or trim member to the static structures or for striplike channel or trim member fasteners in which the fastener is specifically modified in structure to mate with a specific construction or configuration of the Class 52 structure; and subclass 769 for a spring including retaining means holding a separate structure against a facer.
293, Vehicle Fenders, appropriate subclasses for various types of fasteners combined with vehicle fender structure.
301, Land Vehicle: Wheels and Axles, subclasses 37.1+ for fasteners combined with protectors or trim members attached to land vehicles.

290 Having externally threaded attaching means:
This subclass is indented under subclass 289. Subject matter provided with an elongated shank means provided with a continuous helical rib.

291 And laterally extending biasing appendage:
This subclass is indented under subclass 290. Subject matter further provided with a resilient member extending laterally from and yieldingly urging a main body member of the fastener to move in a predetermined direction.

SEE OR SEARCH THIS CLASS, SUBCLASS:
292, for a trim molding fastener provided with a laterally extending biasing appendage without bolt or screw means.

292 Having laterally extending biasing appendage:
This subclass is indented under subclass 289. Subject matter provided with a resilient member expanding laterally from and yieldingly urging a main body member of the fastener to move in a predetermined direction.

293 Resilient metal type:
This subclass is indented under subclass 289. Subject matter wherein the fastener is composed of spring metal, e.g., steel.

SEE OR SEARCH CLASS:
301, Land Vehicle: Wheels and Axles, subclasses 108.1+ for hubcap trim objects being formed from resilient metal material or hubcaps secured to wheeled vehicles by the use of resilient metal fasteners.

294 Strip formed:
This subclass is indented under subclass 293. Subject matter wherein the fastener is formed from a metal strip.

295 Sheet metal formed:
This subclass is indented under subclass 293. Subject matter wherein the fastener is formed from sheet metal.

296 Wire formed:
This subclass is indented under subclass 293. Subject matter wherein the fastener is formed from a metallic strand element.

297 Plastic type:
This subclass is indented under subclass 289. Subject matter wherein the fastener is composed of a substance produced by polymerization.

298 PLURAL FASTENERS HAVING INTERMEDIATE FLACCID CONNECTOR:
This subclass is indented under the class definition. Subject matter wherein plural fasteners are attached by a connector comprising an elongated intermediate configuration having little resistance to longitudinally compressive or shear forces.

(1) Note. See (1) Note of the class definition for the line between this and indented subclasses and Class 2, Apparel.

(2) Note. To be proper in this and indented subclasses, the fasteners must be fastening or attaching to different structures-to-be-secured(*) or portions thereof and not fastening to each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
17, for bail and package ties utilizing plural fasteners and flaccid-type configurations.

SEE OR SEARCH CLASS:
2, Apparel, subclass 321 for garment supporters and retainers utilizing plural fasteners having intermediate flaccid-type connectors; and subclass 323 for garment supporters and retainers consisting of strip-connected spaced holders or fasteners.
165, Heat Exchange, subclass 98 for plural fasteners with intermediate flaccidly adjustable connectors for adjustably securing radiator face coverings to radiator configurations.
280, Land Vehicles, subclasses 814+ for plural fasteners having intermediate flaccid connectors utilized in securing and/or carrying skis.
294, Handling: Hand and Hoist-Line Implements, subclasses 144+ for hand carriers or grippers having a flaccid receiver, support, or fastener for articles.

299 Chain connector:
This subclass is indented under subclass 298. Subject matter wherein the connector comprises a series of connected links.

SEE OR SEARCH CLASS:
2, Apparel, subclass 271 for sleeve or leg closures utilizing chains as an intermediate connector.

300 Elastic connector:
This subclass is indented under subclass 298. Subject matter wherein the connector is composed of a resilient substance.

SEE OR SEARCH CLASS:
2, Apparel, subclass 326 for garment supporters and retainers consisting of plural crossed or diverging suspension strips or strands utilizing plural fasteners having an intermediate strap connector; subclass 332 for plural crossed or diverging suspension strips or strands with running strips or strands comprising a straplike flaccid connector; and subclass 334 for plural crossed or diverging suspension strips or straps utilizing a strap as an intermediate flaccid connector having a pivot member normal to the strip or strap.

301 Strap connector:
This subclass is indented under subclass 300. Subject matter wherein the connector is formed of a band of elastic substance.

SEE OR SEARCH THIS CLASS, SUBCLASS:
68, for strap tighteners provided with strap intermediate connectors.

SEE OR SEARCH CLASS:
2, Apparel, subclass 309 for garment supporters and retainers in a form of a strap partially encircling limb or torso; and subclass 315 for torso or limb encircling garment supporters and retainers provided with plural holding means secured together by strap connectors.

302 Strap connector:
This subclass is indented under subclass 298. Subject matter wherein the connector is formed of a band of flaccid substance.

SEE OR SEARCH THIS CLASS, SUBCLASS:
30, for ball and package ties in the form of wooden straps or bands.
68, for straps provided with tighteners.

303 HAVING MAGNETIC FASTENER:
This subclass is indented under the class definition. Subject matter provided with a fastener including, having, or comprising material utilizing magnetism.

SEE OR SEARCH CLASS:
248, Supports, subclasses 206.5 and 309.4 for combined diverse fasteners utilizing or having a magnet to be used for a bracket.
296, Land Vehicles: Bodies and Tops, subclasses 97.1+ for fasteners utilized to hold or support glare screens to land vehicle bodies utilizing or having a magnet.
335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 302+ for permanent magnet structure or material and subclass 219 for a magnet combined with a diverse-type art device.
362, Illumination, subclass 398 for illumination supports utilizing or having a magnet.

304 HAVING ADHESIVE FASTENER:
This subclass is indented under the class definition. Subject matter provided with a fastener comprising material utilizing molecular adhesive forces.

(1) Note. The adhesive fasteners of this subclass are intended to provide or accomplish the desired fastening between either different structures-to-be-secured(*) or different portions of a structure-to-be-secured(*) and are not intended to mount or secure a separate, distinct fastener used for or accomplishing a desired fastening between different

structures-to-be-secured(*) or portions thereof.

SEE OR SEARCH CLASS:

2, Apparel, subclass 337 for combined fasteners utilizing adhesive means, particularly friction-type devices for supporting and retaining garments.

248, Supports, subclasses 205.3+ for brackets specially mounted or attached by use of adhesives.

296, Land Vehicles: Bodies and Tops, subclasses 97.1+ for glare screens attached or fastened to body configurations by use of adhesives.

305 COMBINED DIVERSE MULTIPART FASTENERS:

This subclass is indented under the class definition. Subject matter comprising a combination of two or more diverse fasteners of this class in which the combination is composed of two or more elements and in which each fastener is different, and distinct from each other.

(1) Note. For documents to be proper in this and indented subclasses, none of the fasteners can utilize the structure-to-be-secured(*) as a component in completing or performing a or its fastening function, e.g., a clip* using the structure-to-be-secured(*) as a mounting to secure other structure-to-be-secured(*) therebetween. Similarly, plural, even if diverse, fasteners which simultaneously or serially fasten, or release to perform a fastening operation, e.g., zippers(*) or combined safety belt and harness buckles(*), are excluded from this and indented subclasses. Any fastener either actuated by a tool, permanently altered in shape or deformed to perform its fastening function not in combination with a fastener of this class is provided for in other classes, e.g., Class 411. In addition, to be proper in this and indented subclasses, the fasteners must each be fastening to structure-to-be-secured(*); plural diverse fasteners merely fastening to each other are excluded herein.

(2) Note. One or single piece combined fasteners are excluded from this and indented subclasses and are properly classified in lower portions of the Class 24 schedule and discretionarily cross-referenced to these combined fastener subclasses.

(3) Note. See Lines With Other Classes under the class definition for the line between this and indented subclasses and Class 2, Apparel.

(4) Note. For the purposes of this and associated definitions, the term “distinct” is taken to mean that the diverse fasteners are either independently operable, i.e., the operation of a first fastener does not directly produce the fastening function of a second fastener and similarly the operation of the second fastener does not produce the fastening operation of the first, or the fasteners are differently shaped or configured from each other, however small the different shape or configuration may be.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.1+, for necktie fasteners utilizing various types of combined fasteners.

67+, for various combined fasteners used to fasten papers.

115+, for various combined fasteners used to hold cords and ropes.

390, for a zipper(*) combined with a distinct separable-fastener(*).

SEE OR SEARCH CLASS:

36, Boots, Shoes, and Leggings, subclasses 50.1+ and 58 for combined fasteners used in closing boot and shoe uppers.

244, Aeronautics and Astronautics, subclass 151 for combined fasteners utilized in connecting parachute harness configurations.

248, Supports, appropriate subclasses for combined fasteners utilized as supports, particularly subclasses 317+ for various combined fasteners utilized as suspended supports.

294, Handling: Hand and Hoist-Line Implements, appropriate subclasses for combined fasteners used in releasing hoist-line or grab-type hooks.

296, Land Vehicles: Bodies and Tops, subclasses 97.1+ for various combined fasteners utilized for securing or holding glare screens to land vehicle bodies.

362, Illumination, subclasses 122+ for combined fasteners utilized in securing or holding plantlike ornaments or wreaths, particularly trees.

403, Joints and Connections, appropriate subclasses for combined fasteners used in joints and connections.

428, Stock Material or Miscellaneous Articles, subclass 11 for combined fasteners utilized in supporting or holding together various type of special occasion ornaments such as Christmas tree, balls, bells, or star-shaped objects.

306 Combined with diverse fastener:

This subclass is indented under subclass 442. Securing means in combination with a diverse fastener proper for this class (e.g., mounting pin, clasp, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

305+, for other combined diverse multipart fasteners.

307 Buckle:

This subclass is indented under subclass 305. Subject matter wherein one of the fasteners comprises a buckle* in the form of a securing means having two connected relatively movable members, wherein either one member is adapted to allow structure-to-be-secured(*) to pass therethrough or the members are adapted to allow structure-to-be-secured(*) to pass completely therebetween in a path generally parallel to the longitudinal axis of the members.

(1) Note. Buckles* are usually designed to secure or tighten belts, bands, or similar articles and are generally operated by having one end of the belt, band, etc., fixedly secured to one end of the buckle* with another portion of the buckle* frictionally or resiliently securing the belt, band, etc., or by passing through a provided for aperture in the belt, band, etc. This feature of allowing the belt, band, etc., to pass through the buckle* distinguishes a buckle* and a clasp*.

(2) Note. One-piece buckles*, e.g., wire formed, or sheet metal stamped, are excluded from this subclass and are provided for in latter parts of the schedule.

SEE OR SEARCH THIS CLASS, SUBCLASS:

163+, for single buckles, per se.

308 And buckles:

This subclass is indented under subclass 307. Subject matter provided with another buckle(*).

(1) Note. To be proper in this subclass, the combined buckles(*) must be the type such that each buckle(*), if separated from the other, can function as a buckle(*), and each buckle(*) must be different as to configuration or composition; otherwise, the document is properly classified in subclasses 163+ and discretionarily cross-referenced to this and indented subclasses.

SEE OR SEARCH CLASS:

2, Apparel, subclass 314 for torso or limb-encircling garment supporters and retainers having pendant holding means provided with plural buckle structures; and subclass 334 for plural crossed or diverging suspension strips provided with a pivot member normal to the strip utilizing plural buckles.

309 Having separate material adjustment means:

This subclass is indented under subclass 308. Subject matter having disparate means specially adapted to modify the amount of structure-to-be-secured(*) being passed through or between the buckle(*).

SEE OR SEARCH CLASS:

2, Apparel, subclass 237 for plural buckles provided with adjustment means for waist bands in trousers or overalls; and subclass 307 for garment supporters or retainers utilizing plural buckles having adjustment means for waistline-type garments.

310 Having separate disconnect means:
This subclass is indented under subclass 308. Subject matter provided with initially separate or movably attached means allowing the two buckles* to be relatively easily engaged or disengaged from each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
312+, for plural diverse buckles(*) having an integral disconnectable configuration.
319, for buckle(*) and hook fasteners having disconnectable means.
341+, for plural diverse clasps(*) having disconnectable means.
358+, for plural diverse hooks having disconnectable means.
572+, for separable fasteners, per se.

SEE OR SEARCH CLASS:
2, Apparel, subclass 321 for torso or limb encircling garment supporters or retainers utilizing a belt buckle provided with a separable fastener.

311 Pivotal lever type:
This subclass is indented under subclass 310. Subject matter wherein the separate disconnectable means includes a releasing member hinged to one of the buckles* for disconnecting the buckles* one from the other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
33, for plural buckles provided with hinge adjustment means.
178, for single buckles provided with separate adjusting means in the form of a penetrating tongue utilized in harness configurations.
188, for single buckles provided with pivoted separate adjustment means in the form of a penetrating prong.
191, for single buckles provided with a separate adjusting means in the form of a pivoted lever.

312 Having disconnect structure:
This subclass is indented under subclass 308. Subject matter provided with rigid configuration integral with each buckle* allowing two buckles* to be relatively easily engaged or disengaged from each other.

SEE OR SEARCH CLASS:
2, Apparel, subclass 301 for garment supporters or retainers in the form of plural buckles having disconnect configuration; subclass 316 for torso or limb encircling garment supporters in the form of plural buckles having disconnect configuration; and subclass 317 for torso or limb encircling garment supporter or retainer with a member between the ends of a circulating strip.

313 Resilient cooperating means:
This subclass is indented under subclass 312. Subject matter wherein the rigid integral configuration is in the form of members composed of resilient substance and which are adapted to mate with each other wherein their resiliency at least in part retains the members together.

SEE OR SEARCH THIS CLASS, SUBCLASS:
324, for plural diverse buckles(*) provided with snap fastener for an attached fastener.

314 And pin:
This subclass is indented under subclass 308. Subject matter provided with a wire section having a piercing end.

SEE OR SEARCH THIS CLASS, SUBCLASS:
186, for a one-piece single buckle provided with a penetrating prong.
317, for combined diverse plural buckle(*) fasteners having a pin.
351+, for combined diverse clasp(*) and pin fasteners.
356+, for combined diverse plural pin fasteners.

SEE OR SEARCH CLASS:
2, Apparel, subclass 319 for torso or limb encircling garment supporters and retainers in the form of a buckle structure having a pin or prong-type structure detachable from or slidable on a belt.

315 Crossed belt accommodating:
This subclass is indented under subclass 308. Subject matter wherein the structure-to-be-secured(*) fastened by a first buckle* is angled with and overlaps a second structure-to-be-secured(*) fastened by a second buckle*.

SEE OR SEARCH CLASS:
2, Apparel, subclass 306 for garment supporters and retainers supporting plural garments in spaced relationship; subclass 332 for buckles accommodating plural crossed or diverging strip type members; and subclass 333 for torso or limb encircling garment supporters and retainers accommodating plural crossed or diverging strips having a detachable or movable feature between the strips.

316 And clasp:
This subclass is indented under subclass 307. Subject matter provided with a fastener in the form of a clasp(*) which either (a) has connected gripping jaws adapted to engage structure-to-be-secured(*), or (b) performs a securement by over edge engagement of structure-to-be-secured(*).

(1) Note. Clasps* are usually designed to be secured to belts, bands, or similar articles generally operated by having one end of the belt, band, etc., fixedly secured to one end of the clasp with the other hinged and engaging the structure-to-be-secured(*) and relies on inherent resilience or friction for securement. See (1) Note under subclass 307 for the difference between a clasp and a buckle.

(2) Note. One piece clasps*, e.g., wire-formed clips*, sheet metal V or J clips* are excluded from this subclass and are provided for in latter parts of the schedule.

317 And pin:
This subclass is indented under subclass 307. Subject matter provided with a fastener comprising a piece of wire having a head or head-like configuration at one end and a penetrating point at the other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
351+, for clasp(*) and pin diverse fasteners.
356+, for plural diverse pin fasteners.

318 And hook:
This subclass is indented under subclass 307. Subject matter provided with a fastener in the form of a book comprising either an elongated wire or rod section, one end of which is curved or sharply bent, or an element having a J-shaped configuration utilized as a hook.

SEE OR SEARCH THIS CLASS, SUBCLASS:
165, for single buckles specially adapted for use with harness configurations structures having combined snap hooks with the buckle.

319 Having disconnect means:
This subclass is indented under subclass 318. Subject matter provided with separate means to allow the buckle* and hook to be relatively easily engaged or disengaged from each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
323+, for plural diverse buckle(*) fasteners provided with separable fastening means for an attached fastener.
341, for plural diverse resilient clasp(*) fasteners provided with disconnectable means.
358+, for plural diverse pin fasteners provided with disconnect means.

320 Having penetrating prong:
This subclass is indented under subclass 318. Subject matter provided with means formed from a sheet metal or metal strip section having a sharp projection stamped, cut, or formed thereon capable of entering into and tending to hold the structure-to-be-secured(*) to the buckle.

SEE OR SEARCH THIS CLASS, SUBCLASS:
347, for clasp(*) and hook fasteners in which a clasp(*) jaw has penetrating gripping structure.
350, for clasp(*) and penetrating prong fasteners.

368, for pin and penetrating prong fasteners.
377, for hook and penetrating prong fasteners.
380, for combined diverse multipart fasteners, one of which is a penetrating prong.

SEE OR SEARCH CLASS:
2, Apparel, subclass 319 for a torso or limb encircling garment supporter or retainer provided with a buckle hook fastener and penetrating prong.

321 Buckle having plural receiving slots:
This subclass is indented under subclass 318. Subject matter wherein a buckle* is provided with two or more openings.

(1) Note. Generally, the buckle(*) is adapted to receive two or more different structures-to-be-secured(*) or two or more portions thereof.

322.1 Including a button fastening element:
This subclass is indented under subclass 307. Subject matter comprising a generally disk-shaped body designed to pass through and cooperate with a buttonhole or loop to produce securement.

SEE OR SEARCH THIS CLASS, SUBCLASS:
90.1+, for buttons utilized as articles combined with a fastener for securing the article to another configuration.
342.1, for clasp* and button fasteners.
367.1, for pin and button fasteners.
378.1, for hook and button fasteners.
379.1, for combined diverse multipart fasteners, one of which is a button.

323 And separable fastening means for attached fastener:
This subclass is indented under subclass 307. Subject matter wherein a buckle* is provided with separate disconnect means to easily disengage another fastener permanently attached to structure-to-be-secured(*).

(1) Note. The other fastener is usually attached at or near an end of the structure-to-be-secured(*).

SEE OR SEARCH THIS CLASS, SUBCLASS:
341, for plural resilient clasps(*) provided with disconnect means.
358, for plural pins provided with disconnect means.
572+, for separable-fasteners(*).

324 Snap fastener:
This subclass is indented under subclass 323. Subject matter wherein the disconnect means is in the form of a circular male member having an upstanding projection formed thereon and a female member having a resilient complimentary socket formed therein receiving and retaining the male member.

SEE OR SEARCH THIS CLASS, SUBCLASS:
614+, and 662+, for head and socket snap fasteners, per se.

SEE OR SEARCH CLASS:
2, Apparel, subclass 322 for torso or limb encircling garment supporters provided with a buckle and separate fastening means in the form of a snap fastener.

325 Having roller means:
This subclass is indented under subclass 307. Subject matter provided with a rotatable elongated cylindrical structure.

326 Clasp:
This subclass is indented under subclass 305. Subject matter wherein one of the fasteners is in the form of a clasp* which either (a) has connected gripping jaws adapted to engage structure-to-be-secured(*), or (b) performs a securement by overedge engagement of structure-to-be-secured(*).

(1) Note. Clasps* are usually designed to be secured to belts, bands, or similar articles generally operated by having one end of the belt, band, etc., fixedly secured to one end of the clasp* with the other hinged and engaging the structure-to-be-secured(*) and relies on inherent resilience or friction for securement. See (1) Note under subclass 307 for the difference between a clasp* and a buckle.

(2) Note. One-piece clasps*, e.g., wire formed clips*, sheet metal V or J clips*, are excluded from the this subclass and are provided for in latter parts of the schedule.

SEE OR SEARCH THIS CLASS, SUBCLASS:

3, for article holders utilized to secure articles to the human body using a combined clasp-type fastener.

16, for combined clasp fasteners utilized as bail and package ties.

455+, for clasps, per se.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclasses 651+ for a check label or tag type of holder utilizing clasps.

248, Supports, subclasses 316.1+ for article holding bracket-type configurations in the form of clasps or clamps.

280, Land Vehicles, subclasses 814+ for ski holders utilizing clasps or clasp-like configuration.

297, Chairs and Seats, subclasses 468+ for body restrainers such as seat belts and harnesses utilizing clasp as a retractable holder.

362, Illumination, subclass 396 for illumination supports in the form of a clasp, clamp, or hook-type configuration.

327 Having pivoted members:

This subclass is indented under subclass 326. Subject matter wherein the clasp* is provided with two hinged members, the unhinged ends thereof being capable of engaging structure-to-be-secured(*).

SEE OR SEARCH THIS CLASS, SUBCLASS:

135, for cord or rope holders utilizing a screw, clamp, or clasp having pivoted members.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclasses 642.02+ for a check label or tag holders in the form of a pivotable member clasp.

119, Animal Husbandry, subclass 813 for a device for restraining a cow's tail that utilizes a clasp having pivotable members or resilient-type configuration.

248, Supports, subclasses 229.13 and 229.23 for brackets in the nature of a clamp having pivotable member.

368, Horology: Time Measuring Systems or Devices, subclasses 278+ for watchcase holders in the form of pivotable member clasp.

328 Cam type member:

This subclass is indented under subclass 327. Subject matter wherein one of the pivoted member has a dimension where the members are hinged such that in one pivoted position the member acts with another member to engage and secure the structure-to-be-secured(*) and in another pivoted position the members acts to disengage and release the structure-to-be-secured(*).

329 Plural clasps:

This subclass is indented under subclass 327. Subject matter wherein two or more clasps(*) are provided.

(1) Note. To be proper in this and indented subclasses, the combined clasp(*) must be the type that each clasp(*), if separated or separable from each other, could function as a clasp(*) and each clasp(*) must be different as to configuration or composition; otherwise the document is properly classified in subclasses 243+ and discretionarily cross-referenced to this and indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

44, for cuff holders utilizing plural clasps.

335+, for plural resilient clasps.

SEE OR SEARCH CLASS:

269, Work Holders, subclass 98 for plural clasp or clamp-type fastening means having pivotable members used in holding work.

403, Joints and Connections, subclass 385 for plural clasp or clamp-type configurations utilized to secure rods or plates together; and subclass 387 for plural clasps or clamps utilized to secure flanged or grooved rods together.

330 And toggle operator:
This subclass is indented under subclass 329. Subject matter further provided with a second pair of hinged elements attached or cooperating with one or more of the clasp* members such that a force applied to the hinged joint of the second pair of elements causes the elements to straighten out and apply forces at the unhinged ends of the second pair of elements, the end forces being transmitted to the one or more of the clasp* members.

SEE OR SEARCH CLASS:
403, Joints and Connections, subclass 303 for a distinct end coupler in the form of a single toggle-type operator for plural connectors.

331 Spring biased:
This subclass is indented under subclass 329. Subject matter provided with a resilient means which regains its original shape after distortation and is assembled with the clasp* so as to force a hinged member thereof to move in a certain direction.

SEE OR SEARCH THIS CLASS, SUBCLASS:
338, for plural resilient clasps(*) having a spring biased jaw.
371, for plural hooks having a biasing spring.
499+, 531, and 532+, for pivoted or similar types of swinging, resiliently biased plural clasps(*).

SEE OR SEARCH CLASS:
439, Electrical Connectors, subclasses 819+ for an uninsulated electrical connector having a rigid nonresilient clamping part operated by a separate spring means.

332 Coil:
This subclass is indented under subclass 331. Subject matter wherein the resilient means is a helical wire.

SEE OR SEARCH THIS CLASS, SUBCLASS:
334, for pivoted member clasps(*) having a coil spring.
509+, 531, and 533+, for pivoted or similar types of swing, coil biased, plural clasps(*).

333 And cam:
This subclass is indented under subclass 329. Subject matter provided with means having an eccentric dimension cooperating with and moving one of the pivoted members.

SEE OR SEARCH THIS CLASS, SUBCLASS:
337, for plural resilient clasps(*) provided with a cam.

334 Coil spring biased:
This subclass is indented under subclass 327. Subject matter wherein a spring in the form of a helical wire is assembled with the clasp(*) to force one of the hinged members in a certain direction.

335 Plural clasps:
This subclass is indented under subclass 326. Subject matter wherein two or more clasps(*) are provided.

(1) Note. to be proper in this and indented subclasses, the combined clasps(*) must be the type that each clasp(*), if separated from each other, can function as a clasp(*), and each clasp(*) must be different as to configuration or composition; otherwise, the document is properly classified as an original in subclasses 243+ and discretionarily cross-referenced to this and indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:
44, for plural clasp cup holders.

SEE OR SEARCH CLASS:
36, Boots, Shoes, and Leggings, subclass 70 for plural clasps utilized in attaching garment protectors to boots, shoes, and leggings.
132, Toilet, subclass 47 for bow or ribbon-type hair fasteners in the form of plural clasps.
248, Supports, subclass 73 for plural clasps interlocking brackets and supports for pipes or cables.

403, Joints and Connections, subclass 385 for plural clasps or clamps connecting rods or plates together.

439, Electrical Connectors, subclasses 775+ for an uninsulated electrical connector for clamping and electrically interconnecting plural conductors.

336 Resilient type clasp:

This subclass is indented under subclass 335. Subject matter wherein one of the clasps(*) is composed of elastic substance which regains its original shape after distortion.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclasses 658+ for check labeled or tag holders in the form of a resilient clip or clips.

47, Plant Husbandry, subclass 46 for resilient clasp for linearly supporting plants.

52, Static Structures (e.g., Buildings), subclass 285.1 for resilient plural clasp means securing together various modular section portions at right angles; subclasses 357+ for plural resilient clasps securing the back of a support and front of a settable material receiving backer; subclass 489.1 for separable clip-type resilient fasteners utilized to secure facer or facer panels to frame or shaft; subclass 582.1 for resilient clasp or clasp-joining panels or modules with edgewise connecting features; and subclass 714 for resilient integral sheet or wire tie members for securing open work, e.g., tress, trellis, grills, etc.

119, Animal Husbandry, subclass 812 for resilient one-piece clamping jaws for restraining a cow's tail.

160, Flexible or Portable Closure, Partition, or Panel, subclasses 178.1+ and 902 for plural resilient clasp utilized in securing Venetian blinds.

248, Supports, subclasses 27.1+ for plural resilient clasps utilized in securing instruments in panels; subclass 72 for resilient plural clasps connecting beams and brackets; and subclass 229.1 for resilient plural clasps interlocking a bracket in a support of an aperture board.

280, Land Vehicles, subclasses 11.37+ for plural resilient clasps utilized in securing skis; and subclass 184 for plural resilient clamp or clasp-type configurations utilized in securing reigns or whip to wheeled vehicles.

281, Books, Strips, and Leaves, subclass 42 for resilient plural clasps utilized in holding or marking book leaves.

292, Closure Fasteners, subclass 288 for portable closure fasteners utilizing resilient plural clasps engaging right angle planar work.

312, Supports: Cabinet Structure, subclass 140 for showcase-type cabinet structure joints and connectors utilizing plural resilient clasp type configuration.

403, Joints and Connections, subclass 387 for plural resilient clasps securing flanged or grooved rods to plates; and subclass 397 for resilient clips utilized in securing rods to plate or similar configurations.

439, Electrical Connectors, subclasses 577+ for wall plate or panel mounting configurations in the form of plural resilient radially expanding spring members extendable through or into panel openings.

337 And cam:

This subclass is indented under subclass 336. Subject matter provided with means having an eccentric dimension cooperating with and moving a portion of a clasp.

338 Spring biased jaw:

This subclass is indented under subclass 336. Subject matter provided with separate elastic means assembled with a clasp(*) to force a jaw portion of the clasp(*) to move in a certain direction.

339 Circular work engageable:

This subclass is indented under subclass 336. Subject matter wherein the clasp(*) is specially configured to engage structure-to-be-secured(*) having a circular or substantially circular cross section.

SEE OR SEARCH THIS CLASS, SUBCLASS:

10+, for resilient plural clasps utilized in engaging in or holding pencils to the human body.

129+, for resilient plural clasps for holding or fastening cords or ropes.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclasses 310+ for check label or tag holders in the form of resilient plural clasps engageable with bottles.

81, Tools, subclass 15.8 for tools for applying resilient plural clasps to anti-skid chains being applied to tires.

131, Tobacco, subclasses 257+ for plural resilient clasps for holding or securing various tobacco products.

174, Electricity: Conductors and Insulators, subclass 40 for plural resilient clasps engaging overhead round-type conductors; subclass 94 for plural resilient clasps engaging or joining bare conductors; subclass 138 for plural resilient clasp capable of engaging and securing various circular cross-sectional insulators; and subclasses 172+ for resilient plural clasps for securing insulated conductors.

248, Supports, subclasses 37.3+ for resilient plural clasp supports for supporting or holding cutlery; subclass 61 for resilient plural configuration used in suspending overhead or messenger cables; subclass 68.1 for plural resilient clasps utilized in bracketing or supporting plural pipes or cables; and subclasses 74.1+ for resilient plural clasps or clamps structure for supporting or bracketing pipes or cables.

256, Fences, subclass 57 for resilient clasps connecting cross pieces of fencing wire.

285, Pipe Joints or Couplings, subclass 114 for pipe joint or coupling configuration provided with resilient clasps for strain relief.

403, Joints and Connections, subclass 387 for plural resilient claps securing or fastening flanged or grooved rods to plates.

439, Electrical Connectors, subclasses 786+ for an uninsulated electrical connector having resilient or spring-operated securing means for electrically joining plural conductors.

340 And pin attachment:

This subclass is indented under subclass 336. Subject matter provided with a fastener comprising a piece of wire having a head or head-like configuration at one end and a penetrating point at the other.

SEE OR SEARCH THIS CLASS, SUBCLASS:

351+, for clasp(*) and pin fasteners.

356+, for plural diverse pin fasteners.

341 And disconnect means:

This subclass is indented under subclass 336. Subject matter provided with separate means allowing the two clasps(*) to be relatively easily engaged or disengaged from each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:

358, for plural pin fasteners provided with disconnect means.

572+, for separable-fasteners(*).

342.1 Including a button fastening element:

This subclass is indented under subclass 326. Subject matter comprising a generally disk-shaped body designed to pass through and cooperate with a buttonhole or loop to produce securement.

SEE OR SEARCH THIS CLASS, SUBCLASS:

43, for cuff holders in the form of a combined clasp and button fastener.

90.1+, for clasp-type fasteners utilized in fastening buttons as articles.

367.1, for pin and button fasteners.

378.1, for hook and button fasteners.

379.1, for combined diverse multipart fasteners, one of which is a button.

SEE OR SEARCH CLASS:

2, Apparel, subclass 302 for garment supporters and retainers for supporting hose material utilizing clasp and button fasteners.

343 And hook:
This subclass is indented under subclass 326. Subject matter provided with a fastener in the form of a hook comprising either a wire or rod section, one end of which is curved or sharply bent, or an element having a J-shaped configuration utilized as a hook.

SEE OR SEARCH THIS CLASS, SUBCLASS:
44, for cuff holders in the form of combined clasp and hook fasteners.
360, for plural pin fasteners provided with a hook.
363, for pin and hook fasteners.
369+, for plural hook fasteners.

SEE OR SEARCH CLASS:
160, Flexible or Portable Closure, Partition, or Panel, subclass 348 for clasp and hook-type structure utilized in hanging and pleating draperies.
248, Supports, subclass 493 for mirror or picture supports in the form of clasp and hook fasteners suspending cords to retainers.

344 Having intermediate connector allowing movement:
This subclass is indented under subclass 343. Subject matter provided with means attaching the hook to a clasp(*) wherein the hook is capable of moving relative to the clasp(*).

SEE OR SEARCH THIS CLASS, SUBCLASS:
362, for plural pins having an intermediate connector.
364, for a pin and hook fastener having an intermediate connector.

345 And adjustment means:
This subclass is indented under subclass 344. Subject matter further provided with means to rigidly position the hook in any one of a plurality of selectable positions relative to the clasp.

346 Having gripping configuration on clasp jaw:
This subclass is indented under subclass 343. Subject matter wherein the clasp has a pair of gripping jaws, wherein a jaw is constructed to grasp and hole the structure-to-be-secured(*).

347 Penetrating type:
This subclass is indented under subclass 346. Subject matter wherein the jaw is constructed to have a piercing point capable of penetrating at least partly into the structure-to-be-secured(*).

348 Having cam:
This subclass is indented under subclass 343. Subject matter provided with pivotal means having an eccentric dimension such that the pivotal means can move from an engaging to a disengaging position relative to the structure-to-be-secured(*).

349 Having separable jaws:
This subclass is indented under subclass 343. Subject matter wherein the clasp(*) has gripping jaws capable of moving towards, away, and removeable from each other.

(1) Note. A screw is capable of being a clasp(*) jaw for purposes of this subclass.

350 And penetrating prong:
This subclass is indented under subclass 326. Subject matter provided with a sheet metal or metal strip section having a sharp projection stamped, cut, or formed thereon capable of penetrating structure-to-be-secured(*).

SEE OR SEARCH THIS CLASS, SUBCLASS:
368, for pin and penetrating prong fasteners.
377, for hook and penetrating prong fasteners.
380, for combined diverse fasteners, one of which is a penetrating prong.

SEE OR SEARCH CLASS:
16, Miscellaneous Hardware, subclasses 4+ for clasp and penetrating prong configurations utilized in fastening carpets.
40, Card, Picture, or Sign Exhibiting, subclasses 662+ for check label or tag fasteners in the form of a clasp provided with a resilient prong.
160, Flexible or Portable Closure, Partition, or Panel, subclass 402 for fabric fastening means to elongated ele-

ments by the use of a clasp and prong type fastener; and subclass 404 for fabric fastening means to an elongated element by the means of a pointed, pierced, or hook element.

248, Supports, subclass 71 for a pipe or cable bracket provided with penetrating means.

351 And pin:

This subclass is indented under subclass 326. Subject matter provided with a pin fastener in the form of a piece of wire having a head or headlike configuration at one end and a penetrating point at the other.

SEE OR SEARCH THIS CLASS, SUBCLASS:

46, for cuff holders in the form of a clasp and pin fastener.

356+, for plural pin fasteners.

SEE OR SEARCH CLASS:

16, Miscellaneous Hardware, subclasses 4+ for combined clasp and pin fasteners utilized for fastening or securing carpets.

352 Having separate pin loss prevention means:

This subclass is indented under subclass 351. Subject matter wherein the pin fastener is provided with means or a configuration specially adapted to guard against loss of the pin fastener.

(1) Note. The prevention means may either be independent of the pin or incorporated with the body if the clasp(*) and pin structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

706.2+, for a pin having guiding, holding, or protecting means for its penetrating portion.

353 Pin coextensive, coplanar and contiguous with clasp jaw:

This subclass is indented under subclass 352. Subject matter wherein a jaw of the clasp(*) has the same special limits as, lies on the same longitudinal planar axis as, and is adjacent to the pin fastener.

SEE OR SEARCH THIS CLASS, SUBCLASS:

354, for clasp(*) and pin fasteners in which the pin is coextensive, coplanar, and contiguous with a clasp(*) jaw.

SEE OR SEARCH CLASS:

63, Jewelry, subclass 2 for miscellaneous type loss-prevention devices for jewelry; and subclass 20 for ornamental pins provided with pin loss prevention means.

354 Pin coextensive, coplanar and contiguous with clasp jaw:

This subclass is indented under subclass 351. Subject matter wherein the pin fastener has the same special limits as, lies on the same plane as, and is adjacent to the pin fastener.

355 Pin forms part of clasp jaw:

This subclass is indented under subclass 351. Subject matter wherein the pin fastener acts as jaw of the clasp(*) to secure the structure-to-be-secured(*).

356 Pin:

This subclass is indented under subclass 303. Subject matter provided with a pin fastener comprising a piece of wire having a head or headlike configuration at one end and a penetrating point at the other.

SEE OR SEARCH THIS CLASS, SUBCLASS:

6, for article holder holding flowers to the human body in the form of a pin.

13, for holding various articles to the human body utilizing a pin fastener.

48, for cuff holders in the form of a pin fastener.

150+, for a single pin fastener of the Class 24 type.

SEE OR SEARCH CLASS:

248, Supports, subclass 239 for projecting pin-type fasteners for securing or bracketing shelves or scaffolds.

357 And pin:

This subclass is indented under subclass 356. Subject matter provided with a second pin fastener in the form of a piece of wire having a

head or headlike configuration at one end and a penetrating point at the other.

(1) Note. To be proper in this and indented subclasses, the combined pins must be the type that, in addition to being composed of plural elements, the pins are different in configuration or composition, e.g., in length, cross-sectional dimension, shape of the point, etc; otherwise the document is properly classified in subclasses 150+ and discretionarily cross-referenced to this and indented subclasses.

358 And disconnect means:
This subclass is indented under subclass 357. Subject matter provided with disconnectable means which allow the two pins to be relatively easily engaged or disengaged from each other.

359 Hook and eye type:
This subclass is indented under subclass 358. Subject matter wherein the disconnect means comprises a first component in the form of a hook composed of wire sharply bent or curved at one end specially adapted to engage and disengage with a second component in the form of a eye fastener composed of a wire curved back and attached onto itself.

360 And hook:
This subclass is indented under subclass 357. Subject matter further provided with a hook comprising either a wire or rod section, one end of which is curved or sharply bent, or an element having a J-shaped configuration utilized as a hook.

SEE OR SEARCH THIS CLASS, SUBCLASS:
363+, for pin and hook fasteners.
369+, for plural hook fasteners.

361 Having connector allowing movement:
This subclass is indented under subclass 360. Subject matter provided with means for attaching either the hook to the pins or the pins to each other, wherein the hook or pins are movable with respect to each other subsequent to attachment.

362 Having intermediate connector allowing movement:
This subclass is indented under subclass 357. Subject matter provided with means attaching the pins to each other, wherein the pins are movable with respect to each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
364, for pin and hook fasteners having an intermediate connector allowing movement.

363 And hook:
This subclass is indented under subclass 356. Subject matter provided with a hook either in the form of a wire rod section, the end of which is curved or sharply bent, or an element having a J-shaped configuration utilized as a hook.

SEE OR SEARCH THIS CLASS, SUBCLASS:
369, for combined hook fasteners.

364 Having intermediate connector allowing movement:
This subclass is indented under subclass 363. Subject matter provided with means attaching the pin to the hook wherein the pin and hook are moveable relative to each other.

365 And adjustment means:
This subclass is indented under subclass 364. Subject matter provided with means to rigidly position the hook in any one of a plurality of selectable positions relative to the pin.

366 Hook having locking means:
This subclass is indented under subclass 363. Subject matter wherein the hook is provided with means capable of moving from a securing to an unsecuring position relative to the curved or bent end.

367.1 Including a button fastening element:
This subclass is indented under subclass 356. Subject matter comprising a generally disk-shaped body designed to pass through and cooperate with a buttonhole or loop to produce securement.

SEE OR SEARCH THIS CLASS, SUBCLASS:

47, for combined pin and button fasteners for cuff holders.

60, for combined button and pin fasteners for fastening or securing neckties.

103, for pin fasteners utilized to secure or fasten buttons as articles.

378.1, for hook and button fasteners.

379.1, for combined diverse multipart fasteners, one of which is a button.

368 And penetrating prong:

This subclass is indented under subclass 356. Subject matter provided with means having a sheet metal or metal strip section having a sharp projection stamped, cut, or formed thereon capable of penetrating structure-to-be-secured(*).

SEE OR SEARCH THIS CLASS, SUBCLASS:

377, for hook and penetrating prong fasteners.

380, for combined diverse multipart fasteners, one of which is a penetrating prong.

690, for separable-fasteners(*) provided with deformable and penetrable mounting means.

369 Hook:

This subclass is indented under subclass 303. Subject matter provided with a hook either in the form of a wire or rod section, the end of which is curved or sharply bent or, an element having a J-shaped configuration utilized as a hook.

SEE OR SEARCH THIS CLASS, SUBCLASS:

230.5, for single hooks, per se.

231, for snap hooks, per se.

713.9+, for a hook shaped lace directing means.

SEE OR SEARCH CLASS:

43, Fishing, Trapping, and Vermin Destroying, subclass 43.16 for various hooks used for or as artificial bait in fishing.

160, Flexible or Portable Closure, Partition, or Panel, subclasses 348+ for various drapery hooks used in hanging or suspending drapes with pleating means or other drapery facilitating functions.

248, Supports, subclass 215 for hook type brackets on horizontal bars or rods; subclass 340 for bar supported hook type suspended supports.

362, Illumination, subclass 396 for hook type supports for illumination devices.

452, Butchering, subclasses 187+ for the supporting and shackling animal carcasses by means of a hook.

370 And hook:

This subclass is indented under subclass 369. Subject matter provided with a second hook either in the form of a wire or rod section, one end of which is curved or sharply bent, or an element having a J-shaped configuration utilized as a hook.

(1) Note. To be proper in this and indented subclasses, the combined hooks must be the type that, in addition to being composed of plural elements, the hooks are different in configuration or composition, e.g., in length, cross-sectional dimension, etc.; otherwise the document is properly classified in subclasses 230.5+ and discretionarily cross-referenced to this and indented subclasses.

SEE OR SEARCH CLASS:

165, Heat Exchange, subclass 98 for adjustable radiator covering means utilizing plural hook structures.

182, Fire Escape, Ladder, or Scaffold, subclass 206 for ladders provided with hook structure.

267, Spring Devices, subclass 73 for tension springs provided with plural hook structures.

292, Closure Fasteners, subclass 288 for portable closure fasteners provided with plural hook structure.

294, Handling: Hand and Hoist-Line Implements, subclasses 87.1+ for multiple object grapples in the form of plural hook structures.

371 Having biasing spring:
This subclass is indented under subclass 370. Subject matter provided with separate elastic means assembled with the hooks to force the hooks toward or away from each other.

372 Separately connected:
This subclass is indented under subclass 370. Subject matter wherein the hooks are engageable or disengageable from each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
572+, for separable connectors, per se.

SEE OR SEARCH CLASS:
59, Chain, Staple, and Horseshoe Making, subclass 85 for chain link structures, per se, provided with disconnect means.

373 Having securing means:
This subclass is indented under subclass 370. Subject matter wherein a hook is provided with securing means capable of moving from a securing to an unsecuring position relative to an open end of the hook.

SEE OR SEARCH CLASS:
152, Resilient Tires and Wheels, subclasses 236+ for cross chain antiskid devices utilizing plural hooks with locking means.

374 Sliding:
This subclass is indented under subclass 373. Subject matter wherein the securing means comprises an element capable of moving in smooth continuous contact with a portion of the hook adjacent the open end.

375 Snap type:
This subclass is indented under subclass 373. Subject matter wherein the securing means comprises a spring or a member biased by a spring such that the spring or member is normally in a secured position with respect to the open end of the hook.

(1) Note. The structure-to-be-secured(*) with the hook usually engages and moves the spring or member to the unsecured position and then allows the spring or member to return to the secured position thereby securing the struc-ture-to-be-secured(*).

376 Pivoted:
This subclass is indented under subclass 373. Subject matter wherein the securing means comprises a member adapted to swing about an axis.

377 Having penetrating prong:
This subclass is indented under subclass 369. Subject matter provided with a sheet metal or metal strip section having a sharp projection stamped, cut, or formed thereon capable of penetrating structure-to-be-secured(*).

SEE OR SEARCH THIS CLASS, SUBCLASS:
380, for combined diverse multipart fasteners, one of which is a penetrating prong.

378.1 Including a button fastening element:
This subclass is indented under subclass 369. Subject matter wherein one of the fasteners comprises a generally disk-shaped body, designed to pass through and cooperate with a buttonhole or loop, to produce securement.

SEE OR SEARCH THIS CLASS, SUBCLASS:
379.1, for combined diverse fasteners, one of which is a button.

SEE OR SEARCH CLASS:
2, Apparel, subclass 302 for hook and button fasteners used in supporting or retaining hose garments.

379.1 Button fastening element including another fastener element:
This subclass is indented under subclass 305. Subject matter wherein one of the fasteners comprises a generally disk-shaped body designed to pass through and cooperate with a buttonhole or loop to produce securement and other fastener is of a different size, shape, or type.

SEE OR SEARCH THIS CLASS, SUBCLASS:

102, for fasteners securing buttons as articles wherein the fastener is a link-type fastener.

380 Penetrating prong:

This subclass is indented under subclass 303. Subject matter wherein one of the fasteners comprises a sheet metal or metal strip section having a sharp projection stamped, cut, or formed thereon capable of penetrating structure-to-be-secured(*).

(1) Note. For this definition, the term "penetrating" is defined as an elastic deformation of the structure-to-be-secured(*) without piercing of same.

SEE OR SEARCH THIS CLASS, SUBCLASS:

690, for separable-fasteners(*) provided with deformable and piercing mounting means.

SEE OR SEARCH CLASS:

602, Surgery: Splint, Brace, or Bandage, subclass 79 for bandage retainers in the form of a penetrating prong combined with another fastener.

606, Surgery, subclass 221 for wound closing clips or serrefines.

381 ZIPPER OR REQUIRED COMPONENT THEREOF:

This subclass is indented under the class definition. Subject matter comprising a zipper* or a required component of a zipper* (i.e., interlocking configured surface or sliding device).

(1) Note. An interlocking configured surface which is disclosed as having both utility as a subcomponent of a zipper* and as a separable-fastener* is classified here and crossed to separable-fastener*.

(2) Note. See the class definition for patent placement procedure.

SEE OR SEARCH CLASS:

29, Metal Working, subclass 33.2 for plural diverse manufacturing apparatus for shaping or assembling a metal zipper or zipper component; subclasses 408+ for a method of making a zipper; and subclasses 766+ for apparatus which assembles a zipper or components thereof.

66, Textiles: Knitting, subclass 80 for machines for knitting stringer tapes which incorporate unknit or fleece-type material (e.g., coiled wire) into a knitted fabric; and subclasses 192+ for a warp knit fabric incorporating an unknitted material (e.g., nominally recited zipper tooth).

112, Sewing, subclass 475.16 for zipper tapes attached by sewing.

139, Textiles: Weaving, appropriate subclasses for machines for weaving stringer tapes which incorporate additional material (e.g., coiled wire); and subclass 384 for woven fabrics having a special shape (e.g., zipper stringer tapes and nominally recited zipper tooth).

264, Plastic and Nonmetallic Article Shaping or Treating: Processes, subclass 252 for separately molding different shaped article portion (teeth) along a sheet edge (e.g., zipper stringer tape) to produce a composite article; and subclasses 280+ for reshaping indefinite length work.

294, Handling: Hand and Hoist-Line Implements, subclass 3.6 for zipper* pulling tools.

425, Plastic Article or Earthenware Shaping or Treating: Apparatus, appropriate subclasses, and cross-reference art collection 814 for means to inject mold component parts of a zipper.

382 Plural zippers:

This subclass is indented under subclass 381. Subject matter including two or more zippers* which are distinct from each other.

(1) Note. The zippers* are considered distinct if at least (a) there are two distinct sets (i.e., two opposed pairs), of interlocking surfaces which are either non-colinear or if collinear have a structural member preventing movement of a common sliding device along both sets of surfaces, and (b) the sets of interlocking surfaces are either operated by indepen-

dently movable sliding devices or a sliding device which connects two distinct surface camming portions together which each operate on a different one of the sets.

383 Zipper chain:
This subclass is indented under subclass 382. Subject matter in which plural sets of interlocking surfaces are fabricated together during manufacture on a common assembly strip (i.e., stringer) intended to be cut into separate zippers* in a latter manufacturing step.

384 Having surface sealing structure:
This subclass is indented under subclass 282. Subject matter including structure which prevents the passage of a particular substance (e.g., fluid, dust, water, air) through the joint formed in the structure-to-be-secured* by the interlocking surfaces of the zippers*.

385 Having slider or interconnected sliders with access opening for diverse-art-member:
This subclass is indented under subclass 381. Zipper* provided with either a single sliding device or two interconnected sliding devices having an open region located therein or therebetween, respectively, through which a member not forming a part of the zipper and utilized in subject matter proper for another class is intended to extend.

386 Plural independently movable sliders:
This subclass is indented under subclass 381. Zipper* provided with two or more independently movable sliding devices each traveling along at least one common segment of a single set of interlocking surfaces.

SEE OR SEARCH THIS CLASS, SUBCLASS:
382, for plural zippers* having sets of interlocking surfaces with a common longitudinal axis and plural sliding devices which never traverse any common segment of the sets of surfaces.

387 With distinct, stationary means for anchoring slider:
This subclass is indented under subclass 381. Zipper* provided with stationary, nonrepetitive means distinguishable from the interlocking surface and its supporting structure which is either positioned at one of the terminal ends thereof or a particular point therealong and intended to cooperate with a portion of the sliding device to hold it at a particular location.

SEE OR SEARCH THIS CLASS, SUBCLASS:
418+, for position locking-means* supported by the slider and intended to cooperate with repetitive structure located along the length of the interlocking surface to anchor the slider at any position on the surface.

SEE OR SEARCH CLASS:
70, Locks, for zippers in combination with locks.

388 And for aligning surfaces or obstructing slider movement:
This subclass is indented under subclass 387. Stationary holding means having additional structure for either (a) aligning the interlocking surfaces of the zipper*, or (b) preventing or slowing the movement of the sliding device along the interlocking surfaces beyond the point at which they contact.

389 With distinct member for sealing surfaces:
This subclass is indented under subclass 381. Zipper* provided with a member which does not form a portion of the interlocking surfaces and which prevents the passage of a particular substance (e.g., water, air, fluid, dust) through the joint formed in the structure-to-be-secured* by the interlocking surfaces of the zipper*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
384, for plural zippers having surface sealing structure.

390 With distinct separable-fastener:
This subclass is indented under subclass 381. Subject matter provided with a separable-fastener* which is distinct from the interlocking configured surface and not directly contacting the sliding device or effecting the zipper's* operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

305+, for combined diverse multipart fasteners which do not include zippers*.

391 Having coiled or bent continuous wire interlocking surface:

This subclass is indented under subclass 381. Zipper* including at least one interlocking surface consisting of a slender coiled or bent, rigid* or semirigid* filament which extends the full length of the surface.

(1) Note. Patents having peculiar interlocking structure (i.e., head) have been crossed into this subclass from its indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

575, for a separable-fastener* having two similarly shaped, sized, and operated interlocking faces.

SEE OR SEARCH CLASS:

264, Plastic and Nonmetallic Article Shaping or Treating: Processes, subclasses 280+ for shaping indefinite length work.

392 With stringer tape interwoven or knitted therewith:

This subclass is indented under subclass 391. Zipper* provided with an intermediate mounting strip which is attached to the coiled or bent filament by the intertwining of plural slender elements which form the material of the strip and the filament during a weaving or knitting operation.

SEE OR SEARCH CLASS:

66, Textiles: Knitting, subclasses 192+ for a warp knit fabric incorporating an unknitted material (e.g., nominally recited interlocking wire for zipper).

139, Textiles: Weaving, subclass 384 for woven fabrics having a special shape (e.g., zipper stringer tapes and nominally recited zipper tooth).

393 With stringer tape having specific weave or knit pattern:

This subclass is indented under subclass 391. Zipper* provided with an intermediate mounting strip which both (a) connects the filament to the structure-to-be-secured*, and (b) is formed by intertwining plural slender elements into a piece of material having a particular woven or knitted pattern.

SEE OR SEARCH CLASS:

66, Textiles: Knitting, subclasses 192+ for a warp knit fabric incorporating an unknitted material.

139, Textiles: Weaving, subclass 384 for woven fabrics having a special shape.

394 With core encircled by coils or bends:

This subclass is indented under subclass 391. Zipper* provided with a member which extends the length of the interlocking surface and is encircled by the coils or bends of the filament.

395 With mounting portion having structural formations complementary to stitching:

This subclass is indented under subclass 391. Coiled or bent filament provided with structural formations positioned along its length which are intended to cooperate with stitching utilized in attaching the filament to either the structure-to-be-secured* or an intermediate mounting strip (e.g., stringer tape) intended to be connected to the structure-to-be-secured*.

396 Attached by stitching:

This subclass is indented under subclass 391. Coiled or bent filament attached by stitching to either the structure-to-be-secured* or an intermediate mounting strip intended to be connected thereto.

SEE OR SEARCH THIS CLASS, SUBCLASS:

393, 394, and 395, for structure which is usually used in conjunction with stitching to mount the interlocking surface.

397 String or stringer tape having distinctive property (e.g., heat sensitive):
This subclass is indented under subclass 396. Coiled or bent filament wherein a distinctive physical property of either (a) the stitching string which is utilized in the stitching operation, or (b) the struc-ture-to-be-secured* or the mounting strip to which the filament is attached by the string, is utilized to enhance the attachment.

398 With stringer tape having distinctive property (e.g., heat sensitive):
This subclass is indented under subclass 391. Zipper* provided with an intermediate mounting strip having a distinctive physical property used to enhance the attachment between the strip and the filament.

SEE OR SEARCH THIS CLASS, SUBCLASS:
397, for a continuous wire interlocking surface attached to a stringer tape by stitching and either the string or stringer tape having a distinctive property which effects the attachment.

399 Having interlocking surface with continuous cross section:
This subclass is indented under subclass 381. Zipper* including at least one interlocking surface consisting of either a single member or plural aligned members having a specific and continuous cross-sectional formation perpendicular to and along the full length of the interlocking surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:
576, for a separable-fastener* having two elongated, similarly shaped, interlocking faces which each have parallel cross sections of identical shape along their full length.

400 Opposed interlocking surface having dissimilar cross section:
This subclass is indented under subclass 399. Zipper* in which the two opposed interlocking surfaces have different cross-sectional formations.

SEE OR SEARCH THIS CLASS, SUBCLASS:
587, for a separable-fastener* having an elongated, resilient, interlocking face with identically shaped, parallel cross sections along its full length.

401 Having interlocking surface formed from single member with varying cross section:
This subclass is indented under subclass 381. Zippers* including at least one interlocking surface formed from a single member and having a cross-sectional shape which varies at different points perpendicular to and located along its length.

SEE OR SEARCH THIS CLASS, SUBCLASS:
577, for a separable-fastener* having two, similarly shaped, interlocking faces which each have parallel cross sections of varying shape along their length.

402 Opposed surface having dissimilar cross section:
This subclass is indented under subclass 401. Zipper* in which the two opposed interlocking surfaces have different cross-sectional formations.

403 Interlocking surface constructed from plural elements in series:
This subclass is indented under subclass 381. Zipper* including specific details of an interlocking surface which is constructed from plural, discrete elements (i.e., teeth) attached in a series either directly to the structure-to-be-secured* or to an intermediate mounting strip (i.e., stringer) which is intended to be connected to the structure-to-be-secured* in another distinct operation.

404 Having either noninterlocking element in, interrupted, or unequal length series:
This subclass is indented under subclass 403. Zipper* wherein the series of elements of one of the interlocking surfaces either (a) includes one or more elements in the series having no exterior face intended to interlock with an element of the mating surface, (b) includes a gap between two of the elements in the series which is significantly larger than the spacing

between the majority of elements in the series, or (c) extends a significantly longer distance than the opposed series of elements.

405 With element structural feature unrelated to interlocking or securing portion:
This subclass is indented under subclass 403. Element constructed with a functional or design feature (e.g., guide slots for sliding devices) not essential to, nor perfecting, either the portion of the element which (a) contacts and interlocking with an opposed element, or (b) attaches the element to the structure-to-be-secured* or mounting strip.

406 Dissimilar opposed elements:
This subclass is indented under subclass 403. Zipper* wherein at least one discrete element of an interlocking surface is dissimilar in construction or configuration to the discrete element in the opposed surface with which it is intended to engage when the zipper* is closed.

407 Wire element:
This subclass is indented under subclass 403. Element wherein the portion of the element intended to contact and interlock with an element of the mating interlocking surface is formed from a slender, rigid* or semirigid* filament.

SEE OR SEARCH THIS CLASS, SUBCLASS:
391+, for an interlocking surface formed from a single coiled or bent continuous wire.

408 Preattached to mounting cord:
This subclass is indented under subclass 403. Discrete elements premounted during the manufacture of the zipper* to a distinct strand before being attached as a unit in a latter manufacturing step.

SEE OR SEARCH THIS CLASS, SUBCLASS:
401+, for an interlocking surface formed (e.g., molded) from a single continuous member having a varying cross section at different points along its length.

409 Having interlocking portion with specific shape:
This subclass is indented under subclass 403. Element wherein the portion of the discrete element intended to contact and interlock with a portion of an identical discrete element or elements of the mating interlocking surface includes a face having specific shape or contour (e.g., hooked).

410 Including symmetrical formations on opposite walls for engaging mating elements:
This subclass is indented under subclass 409. Discrete element face including two identically shaped symmetrical formations located on opposite sides of the discrete element for interlocking engagement with identical formations on two different discrete elements of the mating interlocking surface.

411 Including complementary formations on opposite walls for engaging mating elements:
This subclass is indented under subclass 409. Discrete element face including two, complementary-shaped formations (e.g., cavity and projection) located on opposite sides of the discrete element for interlocking with complementary formations on two different discrete elements of the mating interlocking surface.

412 Mating elements having reversed orientation of formations:
This subclass is indented under subclass 411. Discrete element face wherein the discrete elements of the mating surface which interlock therewith have identically shaped formations turned in the opposite direction of slider travel.

413 Having mounting portion with specific shape or structure:
This subclass is indented under subclass 403. Discrete element wherein the portion of the element intended to contact and facilitate attaching it to either the structure-to-be-secured* or the mounting strip includes a particular structural formation.

SEE OR SEARCH THIS CLASS, SUBCLASS:
682.1+, for a separable-fastener* having means for mounting one of its mem-

bers to the structure-to-be-secured* or a support therefor.

414 Including embracing jaws:
This subclass is indented under subclass 413. Element attaching portion including a pair of opposed cooperating jaws which embrace either the structure-to- be-secured* or the mounting strip.

SEE OR SEARCH THIS CLASS, SUBCLASS:
688+, for a separable-fastener* with one of its members provided with deformable means formed from or fixedly attached to it for mounting it to the structure-to-be-secured* or a support therefor.

415 Slider having specific configuration, construction, adaptation, or material:
This subclass is indented under subclass 381. Zipper* in which a portion or component of the sliding device (1) has either a particular (a) shape or contour, (b) assembled relationship, or (c) perfecting feature unrelated to its primary function of shifting interlocking surfaces, or (2) is made from a particular composition of matter.

416 Including relatively movable spaced wings (i.e., restraining walls):
This subclass is indented under subclass 415. Sliding device including two spaced walls located on opposite sides of the structure-to-be-secured* which are connected together in a manner allowing relative movement therebetween and utilized both (a) to support the interlocking surface camming and shifting components of the device, and (b) to restrain the separation of the interlocking surfaces.

(1) Note. The spaced walls of this subclass merely restrain the separation of the contacted segment of the interlocking surfaces within a fixed bounded region for alignment purposed and do not shift the surfaces into an interlocked position.

417 Including converging channel and relatively movable separator island:
This subclass is indented under subclass 415. Sliding device in which the surface camming and shifting components include (a) two converging walls forming a channel which forces the two interlocking surfaces towards each other and into engagement when the sliding device is traveling in one direction, and (b) a member located between and movable relative to both of the channel walls which forces the two interlocking surfaces away from each other and out of engagement when the sliding device is traveling in the opposite direction.

418 Including position locking-means attached thereto:
This subclass is indented under subclass 415. Sliding device including locking-means* attached thereto and operated either (a) by a sudden separation force on the structure-to-be-secured*, or (b) by hand for anchoring the sliding device at any position located along the length of the interlocking surfaces.

SEE OR SEARCH THIS CLASS, SUBCLASS:
387+, for nonrepetitive stationary means distinguishable from the interlocking surface for anchoring the slider.

419 Protrusion on pull tab directly engaging interlocking surfaces:
This subclass is indented under subclass 418. Sliding device provided with a movably attached member (e.g., bar, chain) by which the pulling force necessary to shift the device along the length of the surfaces is transmitted, and wherein the locking-means* for the sliding device consists of either an integrally formed or rigidly affixed protrusion which is located on the pull member and engages with the interlocking surfaces when the pull member is moved relative to the slider.

420 Having surface engaging element shifted by reorientation of pull tab:
This subclass is indented under subclass 418. Sliding device provided with a movably attached member (e.g., bar, chain) by which the pulling force necessary to shift the device along the length of the interlocking surfaces is transmitted, and wherein the locking-means* for anchoring the sliding device includes an element either separate from or movably attached to the pull member which is engaged with the interlocking surfaces when the pull member is reoriented or relocated relative to the sliding device.

421 Resilient or spring biased element:
This subclass is indented under subclass 420. Locking-means* wherein the interlocking surface engaging element is either (a) constructed to be resilient* (b) made from a resilient* material, or (c) is attached to a spring which pulls it toward an initial position.

422 Selectively shifted by either of two pull tabs:
This subclass is indented under subclass 421. Locking-means* in which the resilient* or spring biased element may be shifted into engagement with the interlocking surfaces by either of two distinct pull members.

423 With relatively movable link:
This subclass is indented under subclass 421. Locking-means* provided with a separate, motion transmitting, linking member located between the pull member and the resilient* or spring biased element and movable relative to each.

424 Biased by distinct spring:
This subclass is indented under subclass 421. Locking-means* in which the interlocking surface engaging element is biased by a spring which is not integral therewith.

425 Having aperture cooperation with guide post:
This subclass is indented under subclass 421. Locking-means* in which an aperture is formed in the interlocking surface engaging element for encircling a relatively fixed column or finger which limits this encompassing portion of the element to travel along the column's length.

426 Including means preventing bunching of structure-to-be-secured or stringer:
This subclass is indented under subclass 415. Sliding device including means either formed from or attached to the sliding device for preventing the gathering, puckering, or wrinkling of either (a) the structure-to-be-secured*, or (b) an intermediate mounting strip utilized in mounting the interlocking surfaces to the structure-to-be-secured* at one location during the travel of the sliding device.

427 Having specific contour or arrangement of converging channel, separator island, or wing:
This subclass is indented under subclass 415. Sliding device including specific details of either the shape of or the assembled relationship between (a) a channel portion of the sliding device having converging walls which partially encompass and force together the interlocking surfaces when the sliding device travels in one direction, (b) a wedging portion of the sliding device which pushes between and forces apart the interlocking surfaces when the device travels in the opposite direction, or (c) a wall portion of the sliding device which supports the channel and wedging portions and restrains the outward movement of the interlocking surfaces within a fixed bounded region for alignment purposes.

428 Spaced segments of each wall of channel supported by different wings:
This subclass is indented under subclass 427. Sliding device in which each of the converging walls of the channel portion includes two distinct sections which have (a) an open gap therebetween and (b) are each supported by a different restraining wall of the sliding device.

429 Including pull tab attaching means:
This subclass is indented under subclass 415. Sliding device including both (a) member through which the pulling force necessary to shift the device along the length of the interlocking surface is transmitted to the sliding device and (b) means for attaching this member to the sliding device.

430 Including means for attaching components of slider together:
This subclass is indented under subclass 415. Sliding devices including means for attaching separate components of the sliding device together into a unit.

SEE OR SEARCH THIS CLASS, SUBCLASS:
429, for pull tab-attaching means which may attach additional components of the slider together.

431 With ornamental slider:
This subclass is indented under subclass 415. Sliding device provided with at least one component intended to enhance the appearance of the sliding device (e.g., decorative indicia thereof, a symbolic configuration, ornamental material attached thereto).

432 With means for concealing surfaces:
This subclass is indented under subclass 381. Zipper* provided with a member which covers the interlocking surfaces concealing them from view and is either formed for a portion of an intermediate strip (i.e., stringer) utilized in mounting the interlocking surfaces to the structure-to-be-secured*, an independent piece of material attached to either the mounting strip or the structure-to-be-secured.

SEE OR SEARCH THIS CLASS, SUBCLASS:
389, for a member which conceals the interlocking surfaces from view and prevents the passage of a particular substance through the joint (e.g., water).

SEE OR SEARCH CLASS:
2, Apparel, subclasses 265+ for general apparel structure (e.g., cover flap) which is used with attachment fasteners.

433 Including complementary, aligning means attached to ends of interlocking surfaces:
This subclass is indented under subclass 381. Zipper* including means having a component located at the terminal portion of each of the interlocking surfaces which are structurally complementary to each other and align the ends of the interlocking surfaces.

SEE OR SEARCH THIS CLASS, SUBCLASS:
388, for complementary aligning means combined with structure for anchoring the slider.

434 Having specific mounting connection or reinforcing structure at connection:
This subclass is indented under subclass 433. Aligning means having either (a) specific structure for attaching the aligning means to the structure-to-be-secured* or to an intermediate mounting strip utilized in interconnecting the aligning means to the structure-to-be-secured*, or (b) specific structure near the attachment joint for reinforcing and preventing damage to the structure-to-be-secured* or the mounting strip.

435 Including means attaching interlocking surfaces together:
This subclass is indented under subclass 381. Zipper* including means distinct from the interlocking surfaces for attaching at least one portion of an interlocking surface to the opposed interlocking surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:
390, for a separable-fastener* which secures the upper ends of two stringer tapes together without effecting the operation of the zipper* (i.e., the securing is not necessary for the normal operation of the zipper*).

436 Including means for obstructing movement of slider:
This subclass is indented under subclass 381. Zipper* including means separate from the sliding device which prevents or slows the movement of the device along the interlocking surfaces beyond the point at which it is located (e.g., end of surface).

SEE OR SEARCH THIS CLASS, SUBCLASS:
388, for means which obstruct slider movement combined with structure for anchoring the slider.
435, for means which obstruct slider movement and attaches the interlocking surfaces together.

437 SLIT CLOSING MEANS INCLUDING GUIDES ON OPPOSITE EDGES OF SLIT AND SLIDABLE BRIDGING COMPONENT:
This subclass is indented under the class definition. Subject matter comprising means which either pulls together or covers an elongated opening in the structure-to-be-secured*, and includes (a) guides located on the opposite longitudinal edges of the opening, and (b) a component which contacts both opposed guides

and slides thereon when moving to or from a position where it extends across the gap between the longitudinal edges of the opening to shut or cover it.

(1) Note. See the class definition for patent placement procedure.

SEE OR SEARCH CLASS:
36, Boots, Shoes, and Leggings, subclasses 50.1+ for closure for uppers.

438 With hand-actuated lever for shifting bridging component:
This subclass is indented under subclass 437. Subject matter provided with a hand-actuated*, rigid* element which is pivotally connected to the sliding component and shifts the component between different positions when manual force is applied thereto and the element is swung about the pivot connection.

439 Including structure linking and allowing variations in separation between opposite-guide-contacting portions or component:
This subclass is indented under subclass 437. Sliding component including structure which (a) is located between and connects together the distinct portions of the component which contact the guides positioned on opposite sides of the opening, and (b) allows the distance between these guide contacting portions to change or be adjusted.

440 Having bridging components attached in series along carrying element:
This subclass is indented under subclass 437. Subject matter including plural sliding components connected in sequential order along the length of a common, distinct element (e.g., cord) which transmits to the components the force necessary to shift them along the guides.

441 Having separate, independently movable, bridging components:
This subclass is indented under subclass 437. Subject matter including plural, separate, sliding components which are movable independently along the same set of opposed guides.

442 INCLUDING READILY DISSOCIABLE FASTENER HAVING NUMEROUS, PROTRUDING, UNITARY FILAMENTS RANDOMLY INTERLOCKING WITH, AND SIMULTANEOUSLY MOVING TOWARDS, MATING STRUCTURE (E.G., HOOK-LOOP TYPE FASTENER):
This subclass is indented under the class definition. Subject matter including means (1) for securing a segment of the structure-to-be-secured* to either supporting structure therefor or a distinct segment thereof in a manner allowing the securement to be quickly detached, and (2) having a multiplicity of individual threadlike (i.e., the size of a cross-sectional area thereof taken perpendicular to its longitudinal axis being extremely small when compared to the area of the common mounting surface for the members) members which (a) each have all of their components integral with or fixedly attached to one another (b) are mounted to a common mounting surface anchored to the structure-to-be-secured* or a support structure therefor from which they extend upwardly, and (c) are intended to move both without preorientation and in unison towards engagement with separate, opposed structure attached to, formed from, or consisting of the distinct segment of the structure-to-be-secured* or the support structure therefor with which each threadlike member individually and mechanically interlocks (i.e., its movement is restricted in the direction in which force is transmitted thereto by the structure-to-be-secured*) to complete the securement.

(1) Note. To be proper for this and the indented subclasses several of the threadlike members should, by disclosure, be mounted along each side of the common mounting surface to allow random alignment of the means with the opposed structure at any given orientation of the mounting surface.

(2) Note. Patents which claim only structure details of a single, interlocking, threadlike member which is solely disclosed as being utilized in a securing means proper for this and the indented subclasses have been placed in these subclasses on a disclosure basis.

(3) Note. See the class definition for patent placement procedure.

(4) Note. Pointed or barbed threadlike members which pierce the unmodified sur-

face of the structure-to-be-secured* or a support therefor to complete the securement operation are considered proper for this and the indented subclasses.

(5) Note. The trademark "VEL CRO&4121;" has simply been used in the title of this subclass as an example of one well known fastener brand which generally fits within the broader concept of this subclass and has been both capitalized and placed between quotation marks in the title to protect its status as an active trademark.

SEE OR SEARCH THIS CLASS, SUBCLASS:

31, for a fastener of the type proper for this subclass which is utilized in connecting together the ends of a driving belt.

SEE OR SEARCH CLASS:

28, Textiles: Manufacturing, subclass 161 for pile fabric specifically fabricated or treated for utilization in forming a separable-fastener*.

428, Stock Material or Miscellaneous Articles, subclass 100 for a structurally defined web or sheet including a hook or barb fastener for attachment to an external surface.

443 With distinct structure for sealing securement joint:

This subclass is indented under subclass 442. Securing means provided with structure which does not form a portion of any of the interlocking, threadlike members and which prevents the passage of a particular substance (e.g., water) through the joint formed between the interlocking members and the opposed structure with which they interlock during the securing operation.

444 With feature facilitating, enhancing, or causing attachment of filament mounting surface to support therefor:

This subclass is indented under subclass 442. Threadlike member mounting surface provided with a special structural feature which is intended to assist in, expedite, improve the quality of, or cause its anchoring to either the distinct segment of the structure-to-be-secured* or the support structure therefor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

682.1+, for a separable-fastener* having means for mounting one of its members to a distinct segment of the structure-to-be-secured* or the support structure therefor.

445 Having filaments formed from continuous element interwoven or knitted into distinct, mounting surface fabric:

This subclass is indented under subclass 442. Securing means having at least two of the individual threadlike members both formed from a common continuous element which is mounted to the mounting surface by the intertwining of the element with a plurality of distinct (i.e., having different structural shape or assembled orientation from element), slender strands forming the material of the mounting surface during a weaving or knitting operation.

446 Having filaments of varied shape or size on same mounting surface:

This subclass is indented under subclass 442. Securing means in which the individual threadlike members located on the common mounting surface have a diversity of configurations or dimensions.

447 With feature facilitating or causing attachment of filaments to mounting surface:

This subclass is indented under subclass 442. Securing means provided with a feature which is specifically intended to assist in, expedite, improve the quality of, or cause the mounting of the threadlike members to the mounting surface.

448 Thermal or adhesive:

This subclass is indented under subclass 447. Mounting feature utilizing either the thermal properties or molecular adhesive forces of the threadlike members, mounting surface, or a separate mounting substance in the mounting operation.

449 Having several, repeating, interlocking formations along length of filaments:
This subclass is indented under subclass 442. Threadlike members having several, similar structural formations formed along the length of the members, which formations are each intended to be capable of interlocking with the opposed structure during at least some of the securing operations.

450 Having opposed structure formed from distinct filaments of diverse shape to those mating therewith:
This subclass is indented under subclass 442. Securing means wherein the opposed structure with which the threadlike members of the securing means interlock is also formed from a multiplicity of individual threadlike members having a configuration which is different from that of the members they engage and interlock with.

451 Having filaments constructed from coated, laminated, or composite material:
This subclass is indented under subclass 442. Threadlike members having their individual structure formed either (a) one substance enclosed within a layer of another distinct substance, (b) two distinct layers of different substances united together or, (c) two distinct substances each forming different portions of the same member.

452 Having mounting surface and filaments constructed from common piece of material:
This subclass is indented under subclass 442. Securing means having the mounting surface and their threadlike members formed (e.g., molded, cut) from a single piece of material.

453 INDEPENDENT, HEADED, APER-TURE-PASS-THROUGH FASTENER:
This subclass is indented under the class definition. Subject matter comprising a securing means which (1) is separated from (i.e., not mounted or attached to) both the structure-to-be-secured* and any supporting structure therefor, (2) includes a relatively narrow shank portion intended to (a) first pass freely through (i.e., not interlock with) an initial preformed aperture in the structure-to-be-secured* or supporting structure therefor and (b) then interlock with (i.e., movement of the securing means is restricted in a direction force is exerted thereon by the struc-ture-to-be-secured*) an aligned structural modification (e.g., aperture) or peculiarity (e.g., bend) in either the supporting structure or a separate area of the structure-to-be-secured*, and (3) includes an enlarged, insertion-force-transmitting head portion which in final position contacts the surface area around the initial aperture preventing the terminal end of the securing means from passing therethrough.

(1) Note. The area around the aperture in the structure-to-be-secured* is held or gripped between the headed portion of the securing means and the face of the structural modification or peculiarity after interlock has taken place.

(2) Note. The shank portion of the fastening means is always narrower in at least one dimension than the headed portion thereof during the insertion operation, however, it may include a section which before or after it is passed through the aperture expands from a contracted configuration to a configuration as wide or wider than the headed portion.

(3) Note. A securing means which in addition includes a component which does not pass through the aperture and engages the tip of the shank to complete its interlock with the modifications or peculiarities is only considered proper for this subclass if the component is totally separate from the remainder of the securing means and is found in subclasses 455+ if linked by connecting structure (see subclass 455, (1) Note.

(4) Note. See the class definition for patent placement procedures.

SEE OR SEARCH THIS CLASS, SUBCLASS:

41.1+, for cuff holders having similar structure and operation to the fasteners of this subclass.

573+, for similar fasteners which include three separate components and have at least two of these components formed from either (1) material distinct from that of the structure-to-be-secured* or

a support therefor and not encompassed thereby, or (2) the material of the structure-to-be-secured* or the support therefor, however, in this instance, both of these components if one includes an apertures must either, (a) have their interlocking structure remain unaligned with each other along the central axis of the aperture when in their final interlocked position, or (b) have the third element engage each in a separate distinct interlocking operation.

706, for a headed pin fastener.

SEE OR SEARCH CLASS:

403, Joints and Connections, subclasses 405+ for a separate connector, fastener, or retainer for connecting together rigid or semirigid panels in which either (a) a peculiar cooperating configuration between the panels is claimed, or (b) plural connectors, fasteners, or retainers are claimed in a particular arrangement.

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, for headed fastener which are either (a) impact driven, (b) rotated by a torque applying tool, (c) have a permanently deformed tip, or (d) have a pointed material impaling tip.

454 FASTENER WITH REVOLVING COMPONENT WRAPPING STRUCTURE-TO-BE-SECURED ABOUT FASTENER:

This subclass is indented under the class definition. Subject matter comprising a fastener having a component revolving about (i.e., rotating at least 360°) a relatively stationary component of the fastener along with a continuously engaged segment of a flaccid* structure-to-be-secured* to thereby wind the structure-to-be-secured* about at least one component of the fastener.

455 CLASP, CLIP, SUPPORT-CLAMP, OR REQUIRED COMPONENT THEREOF:

This subclass is indented under the class definition. Subject matter comprising a clasp*, clip*, support clamp*, or required component (i.e., a surface of the mechanism having the sole purpose of gripping a structure-to-be-secured*) thereof.

(1) Note. Securing means having a component cooperating with a structural modification formed in or from a portion of the structure-to-be-secured* (e.g., extending through an aperture formed in the structure-to-be-secured*) when operating are not considered proper for this and the indented subclasses if the sole function of this modification is for the securing operation and are generally found in separable-fasteners*. The only exceptions to this statement are when (a) the component of the securing means cooperating with the modification is used to connect the article gripping face of a support-clamp* to the structure-to-be-secured* which forms the opposed gripping face, of the support-clamp*, it is then proper for subclass 458 if the article gripping face is claimed and the supporting article has no special structural modification (e.g., another aperture being gripped by the faces), or (b) the component is located on one gripping face of an independent clasp* (i.e., a clasp* unconnected in any manner to either another portion of the structure-to-be-secured* or a supporting structure therefor) which is intended to merely grip two segments of the structure-to-be-secured* together and has its component supporting gripping face linked to its opposed gripping face solely by structure which does not pass through the structural modification in the structure-to-be-secured*.

(2) Note. See Lines With Other Classes of the class definition of this class for the line between Classes 24 and 248. Also, see the search note to Class 24 in the class definition of Class 248.

(3) Note. Securing means having a component which penetrates or forms a passageway through the structure-to-be-secured* when operating are not considered proper for this and the indented subclasses and are found generally below in subclass 706 and its indented subclasses. The only exception is when the penetrat-

ing component is (a) intended to enhance the gripping action and is located on and protrudes at an angle skewed to the structure-to-be-secured* contacting surface of one of the relatively movable, interconnected, opposed gripping faces of a clasp*, clip*, or support-clamp*, and (2) not restricted by structure which contacts the portion of the penetrating component extending through the structure-to-be-secured* to prevent its removal in a direction opposed to that of its entry into the structure-to-be-secured*.

(4) Note. See the class definition for patent placement procedures.

SEE OR SEARCH THIS CLASS, SUBCLASS:

41.1+, for devices for holding cuffs.

67+, for paper fasteners, clipboards, and other paper clamping devices which cooperate with specific paper structure for holding the paper in a given position. Paper fasteners of a more general utility are classified under subclass 455 or its indented subclasses.

72.5, for clasps*, clips* or support-clamps* which cooperate with specific bedclothes structure for holding bedclothes in a given position. Bedclothes holders of a more general utility are classified under subclass 455 or its indented subclasses.

115, for a cord or rope engaging fastener which is a component of a clasp* and holds one portion of a cord or rope relative to another portion of a cord or rope where the cord or rope has another principal function (i.e., it is the structure-to-be-secured* since it has principle utility outside this class).

163+, for devices which grasp belt like bands in the manner of a buckle.

265, for a strap-end-attaching device combined with an unclaimed clasp*, clip*, or support-clamp*.

706.2+, for devices which grasp pins to prevent their loss.

SEE OR SEARCH CLASS:

2, Apparel, subclasses 300 through 342 for clasps*, clips*, support-clamps* used to support or retain garments or to hold parts of a garment supporter together where significant structure or features of the garments or parts held (i.e., details not required for gripping) are claimed. See (1) Note of the class definition of this class.

5, Beds, particularly subclasses 402+ for devices for securing a cover to a pad or bottom of a bedstead; subclass 411 for devices for securing a portion of a mattress on to a section of a bed which has been unfolded or extended; and subclass 498 for devices for holding bedclothes on the bed or details of the bedclothes. Details of the specific bedclothes, bed, or portion thereof must be claimed.

15, Brushing, Scrubbing, and General Cleaning, particularly subclass 257.2 for a clasp* for attaching dustpans to brushes or brooms.

16, Miscellaneous Hardware, particularly subclasses 4+ for a device (e.g., clip*, clasp*, or support-clamp*) peculiar to, or having a sole disclosure for use in, securing a carpet to the floor of a building; and subclass 428 for a device peculiar to, or having a sole disclosure for use in, securing a cord pull handle to window blind.

29, Metal Working, particularly subclass 13 and 400.1+, for a process of manufacturing a metal clasp*, clip* or support-clamp*. Search in particular subclasses 33+, 650, and 700+ for the means for performing the process.

38, Textiles: Ironing or Smoothing, particularly subclass 102.91 for fabric fasteners attached to a stretcher frame.

40, Card, Picture, or Sign Exhibiting, particularly subclasses 16.4+ for a check, label, or tag holder using a clamp for attachment to a body.

63, Jewelry, particularly subclasses 12+ for earrings which claim the details of the ornamental setting or of the ear engaging portions.

69, Leather Manufactures, particularly subclasses 19+ for apparatus (e.g., a clasp*, clip*, or support-clamp*) peculiar to or having a sole disclosure for use in the stretching or holding of leather.

72, Metal Deforming, particularly subclasses 293+ and 422+ for a clasp* used in deforming metal.

73, Measuring and Testing, particularly subclasses 831+ and 856+ for apparatus (e.g., a clasp*, clip*, or support-clamp*) peculiar to or having a sole disclosure for use in specimen measuring and testing.

74, Machine Element or Mechanism, particularly subclasses 144+ for a device (e.g., a clasp*) which intermittently grips, for the purpose of moving, a member (e.g., a polish rod); and subclasses 579+ for a pitmen or connecting rod and its gripping device.

132, Toilet, particularly subclass 41 for hair retained curlers with a clasp* type hair fastener; and subclasses 46 and 48 for curl, clasp*, or barrette-type hair fasteners.

140, Wireworking, particularly subclasses 82+ for devices for making or forming a wire clasp*, clip*, or support-clamp*.

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, particularly subclasses 1+ and 66 for a method of manufacture of an adhesively bonded clasp*, clip*, or support-clamp*.

160, Flexible or Portable Closure, Partition, or Panel, particularly subclasses 349.1+ for hung drapes combined with drape holding means; and subclasses 382+ for fabric fastening means.

164, Metal Founding, particularly subclasses 1+ for process of molding a metallic clasp*, clip*, or support-clamp*.

173, Tool Driving or Impacting, particularly subclasses 163+ for a machine wrench which grips and rotates a pipe or rod (e.g., a well pipe to move it into and out of a material).

175, Boring or Penetrating the Earth, particularly subclass 422 for a clasp* (e.g., a well slip assembly) which separately travels with an earth boring shaft or which cooperates with specifically shaped well structure which stops or actuates the clasp*. A broader claiming of a well drilling apparatus is not sufficient for placement in Class 175.

188, Brakes, particularly subclass 67 for a brake (e.g., a clasp*) mechanically connected to a relatively stationary structure and which holds a pipe or rod at various locations along the pipe's or rod's length for short, quick linear assembly or disassembly during a work or manufacturing operation, or preparatory to a working operation, done by the pipe, rod, or a pipe supported tool.

211, Supports: Racks, appropriate subclasses for structure which supports and article against the pull of gravity or holds it in a storage position; particularly subclasses 119.11 through 119.13 for article gripper means supported by, and in combination with, a clothesline.

248, Supports, appropriate subclasses for structure which supports an article against the pull of gravity or holds it in a storage position.

249, Static Molds, particularly subclasses 205+ for mold adjuncts which function to hold the mold parts in operative relation.

254, Implements or Apparatus for Applying Pushing or Pulling Force, appropriate subclasses for a clasp* attached to a work pushing or pulling implement or apparatus.

264, Plastic and Nonmetallic Article Shaping or Treating: Processes, particularly subclasses 239+ for a process of mechanical shaping or molding to form or reform a shaped, plastic or nonmetallic clasp*, clip*, or support-clamp*.

269, Work Holders, appropriate subclasses for clamps which hold an article (e.g., a well pipe or rod) while modifying work is done on it, or while a plurality

of articles are being located in an assembled arrangement.

279, Chucks or Sockets, appropriate subclasses for a chuck or socket which grips a pipe, rod, or tool which is intended to be rotated or repeatedly reciprocated by an unclaimed power boring source.

280, Land Vehicles, particularly subclasses 170+ and 183+ for whip and rein holders on a vehicle.

281, Books, Strips, and Leaves, particularly subclass 42 for book leaf holders and marks.

292, Closure Fasteners, particularly subclasses 305+ for rod clamps for securing closures in an adjusted position.

294, Handling: Hand and Hoist-Line Implements, particularly subclasses 86+ and 102 for a grapple which is disclosed for gripping articles (e.g., well pipes or rods) being moved between two locations by either a hand or cable lifting force.

373, Industrial Electrical Heating Furnaces, particularly subclasses 94+ for clamps for holding electrodes in an arc furnace.

396, Photography, appropriate subclasses and particularly subclasses 511+ for devices peculiar to the holding of photographic film.

402, Binder Device Releasably Engaging Aperture or Notch of Sheet, appropriate subclasses for clamping devices which cooperate with an aperture or notch in sheet material.

403, Joints and Connections, appropriate subclasses for means securing plural members together whereby the means is involved in a particular cooperation or relation with the members. See in particular subclasses 344, 345+ and Digest 5 for carbon rod holders.

425, Plastic Article or Earthenware Shaping or Treating: Apparatus, appropriate subclasses for means to injection mold plastic or earthenware component parts of a clasp*, clip*, or support-clamp*.

439, Electrical Connectors, appropriate subclasses for a clamping device associated with connecting conductors of electricity.

602, Surgery: Splint, Brace, or Bandage, subclass 79 for bandage restrainers.

623, Prosthesis (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor, subclass 57 for hooks of the artificial hand type.

D2, Apparel and Haberdashery, particularly subclasses 405+ for clothing fastener designs.

456 Gripping member adapted for tool actuation or release:

This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having a gripping member specifically shaped or arranged for direct cooperation with a separate hand or power operated, force transmitting implement (i.e., a tool) which causes an engaging surface of the gripping member to be nondestructively moved into or out of securing contact with a structure-to-be-secured* or supporting member by direct force from the implement.

(1) Note. Clasps*, clips*, or support-clamps* having intermediate operators* such as cams, screws, or bolts which are actuated or released by a tool are not proper for this subclass and may be found elsewhere under subclass 455.

(2) Note. The combination of a clasp*, clip*, or support-clamp* and a positively claimed tool is found in the class providing for the particular tool.

SEE OR SEARCH THIS CLASS, SUBCLASS:

703, for a nonflaccid fastener destructively secured and reshaped or deformed by a tool distortion force.

704, for a two part, interlocking fastener requiring either destructive or tool disengagement.

SEE OR SEARCH CLASS:

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, for headed fasteners which are either (a) impact driven, (b) rotated by a torque applying tool, (c) have a permanently deformed tip, or (d) have a pointed material impaling tip.

457 With specific mounting means for attaching to rigid or semirigid supporting structure or structure-to-be-secured:

This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* provided with specific means for attaching it to a rigid* or semirigid* (a) supporting structure, or (b) structure-to-be-secured*.

(1) Note. The actual mounting means, per se, must be positively claimed for the combination to be considered proper for this subclass. The mere claiming of a clasp*, clip*, or support-clamp* which is "adapted" for mounting is considered insufficient for placement herein. The clasp*, clip*, or support-clamp*, after being mounted to the supporting structure or the structure-to-be-secured* is then capable of gripping a structure-to-be-secured* or supporting structure, respectively.

(2) Note. See (1) Note of subclass 455 for the line between this subclass and subclass 572, Separable-Fastener or Required Component Thereof.

(3) Note. A rigid* or semirigid* linking structure (e.g., a suspension ring or a wire coat hanger) which merely (i.e., its sole disclosed function) connects the clasp*, clip*, or support-clamp* to another structure which supports both the clasp*, clip*, or support-clamp* and the linking structure is not considered alone to be a rigid* or semirigid* support structure.

(4) Note. This subclass does not include peculiar mounting formations which either (1) (a) require the supporting structure to first pass through the passageway formed by opposed structure-to-be-secured* engaging surfaces and (b) are extensions of this passageway simply located further therealong or (2) are intended to be capable of alternately being utilized to grip the structure-to-be-secured* (e.g., not plural clasping sections).

(5) Note. See Lines With Other Classes in the class definition of this class for the line between Classes 24 and 248. Also, see the search note to Class 24 in the class definition of Class 248.

SEE OR SEARCH THIS CLASS, SUBCLASS:

67+, for paper fasteners, clipboards and other paper clamping devices which cooperate with specific paper structure for holding the paper in a given position. Paper fasteners of a more general utility are classified under subclass 455 or its indented subclasses.

289+, for similar fasteners attaching a decorative trim molding strip to the exterior of a vehicle or similar body.

485, for independently operable clasp*, clips*, or support-clamps* connected by a rigid*, nongripping, specifically shaped portion, e.g., a yoke.

478+, 489, 497, 529, and 532, for a clasp*, clip*, or support-clamp* provided with mounting means for attaching to a flaccid* supporting structure or structure-to-be-secured*.

531, for integrally combined, independently operable, diverse, resilient* clasp*, clips*, or support-clamps*.

545+, for plural, one-piece, resilient* fastener faces connected by an integral connecting structure.

SEE OR SEARCH CLASS:

211, Supports: Racks, subclasses 13+ for special article supports; and subclasses 86+ for specially mounted or attached supports or racks.

223, Apparel Apparatus, subclasses 85+ for clamps combined with a specific apparel hanger.

248, Supports, appropriate subclasses for mounted supports in general.

403, Joint and Connections, for a separate connector, fastener, or retainer for connecting together rigid* or semirigid* panels in which either (a) a peculiar cooperating configuration between the panels is claimed, or (b) plural connectors, fasteners, or arrangement.

458 For cooperating with aperture in supporting structure or structure-to-be-secured:
This subclass is indented under subclass 457. Attaching means which cooperates with a preformed opening in either the supporting structure or the structure-to-be-secured.

(1) Note. A support-clamp* mounted to a structure-to-be-secured* via an aperture therethrough must not pass through an additional aperture on the supporting structure which is for the sole purpose of cooperating with the support-clamp*. See subclass 455, (1) Note.

(2) Note. See subclass 453, (3) Note and subclass 573, (2) Note for further distinctions between those subclasses and this.

SEE OR SEARCH THIS CLASS, SUBCLASS:
289+, for similar fasteners used to attach a decorative trim molding strip to the exterior of a vehicle or similar body.
573+, for a separable-fastener* which includes three separate components and either (a) has at least two of these components formed from material other than that of the structure-to-be-secured* or a support structure therefor or (b) has two of these components formed from the material of the structure-to-be-secured* or a support structure therefor, but not aligned with each other when in their final fastening position.

459 Dissociable gripping members:
This subclass is indented under subclass 455. Clasp* having two completely detached gripping members (i.e., the gripping members not being connected to each other in any manner) which are intended to mate or interlock with each other at a specific location while grasping the structure-to-be-secured* therebetween.

SEE OR SEARCH THIS CLASS, SUBCLASS:
530+, for a resilient mechanism which mates or interlocks with structure which has an additional and usually principle function other than normally associated with this class (e.g., a lawn chair frame or a curtain rod) for grasping the structure-to-be-secured* (e.g., the lawn chair webbing or the curtain) therebetween.
572+, for detached gripping members not gripping the structure-to-be-secured* therebetween when interlocking.

SEE OR SEARCH CLASS:
16, Miscellaneous Hardware, subclasses 4+ for similar mechanisms for grasping carpets.
160, Flexible or Portable Closure, Partition, or Panel, subclasses 391 and 392+ for similar mechanisms for fastening fabric to an elongated element.

460 Channel and inserted bar:
This subclass is indented under subclass 459. Detached gripping members including one gripping member having a generally C-shaped cross section and the other gripping member being a rodlike element which fits into the opening of the C-shaped gripping member when grasping the structure-to-be-secured* therebetween.

(1) Note. A channel or bar of any suitable length is considered appropriate for this subclass.

461 Having operator or locking means:
This subclass is indented under subclass 460. Detached gripping members having either (a) an operator* for moving one of the gripping members into contact with the structure-to-be-secured*, or (b) locking means* not directly engaging the structure-to-be-secured* itself but retaining the opposed gripping members in contact therewith.

(1) Note. The operator* must not directly contact the structure-to-be-secured* to be proper for this subclass.

462 Resilient channel or bar:
This subclass is indented under subclass 460. Detached gripping members wherein at least one of the gripping members is either (a) constructed to be resilient*, or (b) made from a resilient* material to aid in the mating or interlocking of the gripping members.

(1) Note. A gripping member merely formed from a resilient* material but wherein the resiliency does not aid in the mating or interlocking operation is not considered proper for this subclass.

463 Having gripping member actuated by fluid force:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having a gripping member moved into or out of engagement with the structure-to-be-secured* by a fluid force or fluid driven operator*.

464 Having inserted and receiving interlocking members connected by bendable, nonbiasing strap:
This subclass is indented under subclass 455. Clasp* having (a) a projecting portion of one gripping member (e.g., button, hook) inserted within a cavity portion of the opposed gripping member (e.g., open loop, aperture, or slot member) which receives both it and the structure-to-be-secured* in such a manner as to subsequently restrict their relative movement in the direction in which force is transmitted thereto by the structure-to-be-secured* and (b) a flexible nongripping, elongated material through which the gripping members are solely attached and which is capable of bending at several points along its length without any essential resilient biasing of either gripping member (i.e., the elongated material, when formed from a resilient* substance, could theoretically be replaced by a flaccid* material and the clasp* would still function properly).

(1) Note. The mere intermeshing or mating of opposed gripping members is not considered to be interlocking unless the intermeshing or mating portions tightly interfit or are otherwise held together to restrict the separation of the gripping members.

(2) Note. Patents in which both interlocking members include a cavity (e.g., open loop, aperture, or slot) which at least partially encompasses a portion of the opposed member's structure are placed in this and the indented subclasses according to the following rule: The cavity or receiving member is always the member whose opening encompasses the larger portion of the mating structure's surface at the interlocking connection (i.e., area of mutual contact). The only exception to this rule is when a hook (i.e., a projection having its end bent back towards its connection to the structure-to-be-secured*) is maneuvered through a closed encircling member, in this situation, the fully encircling member is always considered the cavity or receiving member.

(3) Note. The flexible, nonbiased material need not be fixedly attached to either of the gripping members but may allow for the sliding of either gripping member relative to the material.

(4) Note. See subclass 487 definition and notes for the distinction between an elongated strap and a hinge.

SEE OR SEARCH THIS CLASS, SUBCLASS:

298, for plural fasteners having an intermediate flaccid connector.

487, for gripping members connected by integral, thin, nonbiasing or discrete flaccid, connecting hinge.

530+, for interlocking, gripping members connected by a resiliently biased flexible (e.g., plastic) strap which is essential to the proper functioning of the clasp*.

465 Discrete flaccid strap:
This subclass is indented under subclass 464. Flexible, nonbiased, elongated material made from a separate, flaccid* material.

(1) Note. A multilink chain which acts in a flaccid* manner is considered to be flaccid* even if its individual links are rigid*.

(2) Note. While the flaccid* material must be separate from both the inserted and the receiving members it may wrap around either and form part or all of the member's engaging surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

487, for gripping members connected by a discrete, flaccid* connecting hinge.

530, for interlocking, gripping members connected by a flexible, biased, elongated material (e.g., elastic) whose biasing force is essential to the proper function of the clasp*.

466 With distinct means for preventing separation of members:

This subclass is indented under subclass 465. Clasps* in which the gripping members are provided with means remote from their projecting and cavity portions which both prevents the gripping members from uncoupling and does not contact the structure-to-be-secured*.

(1) Note. The remote means may additionally cause the gripping members to move into or out of contact with the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

469+, for means which prevent separation of the gripping members and contact the structure-to-be-secured*.

467 Slidably mounted:

This subclass is indented under subclass 466. Uncoupling prevention means which is slidably guided and moves relative to the structure-to-be-secured* engaging surface of its gripping member while sliding along a linear or curvilinear path.

468 With separate flaccid flap or pocket for protecting structure-to-be-secured:

This subclass is indented under subclass 465. Clasp provided with an attached separate (i.e., nonintegral) piece or envelope of flaccid* material which is located between one of the gripping members and the structure-to-be-secured* to prevent injury to the structure-to-be-secured* by this gripping member when the members are coupled together.

(1) Note. The envelope may be an attached separate pocket of protective material in which a gripping member is inserted in a readily removable manner without requiring disassembly of the device before the gripping members are coupled together.

(2) Note. The separate flap or envelope does not conform to the specific shape of either gripping member's interlocking portions when in the uncoupled position (i.e., it is not a form fitted cavity or projection member covering).

469 With separate, cavity-blocking gate on receiving member:

This subclass is indented under subclass 465. Cavity gripping member provided with a nonunitary, relatively movable, structure-to-be-secured* engaging portion which blocks the withdrawal path of the projection gripping member (a) preventing its uncoupling from the cavity gripping member, and (b) aiding in the gripping of the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

466+, for means which prevent the separation of the gripping members but does not contact the structure-to-be-secured*.

470 Resilient inserted or receiving member:

This subclass is indented under subclass 465. Projection or cavity gripping member which is either (a) made from a resilient* material, or (b) shaped in such a manner that it is resiliently biased, to facilitate the coupling of gripping members and the structure-to-be-secured*.

471 Inserted or receiving member substantially covered or coated for protection or to promote gripping:

This subclass is indented under subclass 470. Resilient* projection or cavity gripping member completely covered or coated on all significant engaging surfaces with a separate, uniformly thick material which will (a) prevent either gripping member from damaging the structure-to-be-secured* during use, or (b) enhance the gripping of the structure-to-be-secured*.

(1) Note. While the covering or coating may conform to the shape of either the cavity or the projection gripping member engaging surface it is not intended to

form any of the interlocking protrusions, etc., per se, and its primary purpose must be the protection or gripping of the structure-to-be-secured*.

(2) Note. The portion of the inserted or receiving member used for attaching it to the flaccid* connecting strap or other clasp* portion is the only portion considered to be insignificant.

SEE OR SEARCH THIS CLASS, SUBCLASS:

468, for a mechanism with a protecting flap or pocket separate from the flaccid* connecting strap and between the gripping members and the structure-to-be-secured*.

473+, for resilient* projections having a nonmetallical engaging faces which help form its interlocking protrusions, etc., per se.

472 Resilient inserted member:
This subclass is indented under subclass 470. Projection gripping member made from a resilient* material or shaped such that it is resilient*.

(1) Note. The receiving member may also be resilient* but need not be so.

473 Having engaging face formed from nonmetallic material:
This subclass is indented under subclass 472. Projection gripping member having an engaging surface made, at least in part, from a nonmetallic material (e.g., rubber, wood) which is either resilient* itself or biased by a resilient* portion of the projection gripping member.

SEE OR SEARCH THIS CLASS, SUBCLASS:

471, for a projection gripping member covered or coated by a separate, uniformly thick material which conforms to the shape of the projection gripping member engaging surface.

474 Having head and neck type engaging face:
This subclass is indented under subclass 73. Nonmetallic engaging surface consisting of a body with an enlarged engaging head formed on or attached to a relatively narrower engaging stem (e.g., mushroom shaped).

(1) Note. The engaging head may be enlarged in only one transverse direction with respect to the stem.

475 Having internal supporting or reinforcing element:
This subclass is indented under subclass 474. Projection gripping member having a supporting or strengthening element located inside the nonmetallic head or stem.

476 Circular head or neck:
This subclass is indented under subclass 475. Projection gripping member wherein either the enlarged engaging head or stem has a circular cross section in the direction transverse to the longitudinal axis of the head or stem.

477 Having wedge shaped, inserted and receiving members:
This subclass is indented under subclass 465. Clasp* having tapered projection and complimentary shaped cavity gripping members which, because of their tapered shape, grasp the structure-to-be-secured* therebetween with increasing force as they are moved towards each other.

478 With specific means for attaching to flaccid strap or supporting strap:
This subclass is indented under subclass 465. Clasp* wherein either (a) one of the gripping members is provided with specific means for attaching it to the flaccid* material connecting the gripping members together, or (b) a part of the clasp* is provided with specific means for attaching the clasp* to a support strap (e.g., garter strap).

(1) Note. Details of the means for attaching must be positively claimed for proper document placement herein as an original classification.

SEE OR SEARCH THIS CLASS, SUBCLASS:

265, for strap-end-attaching devices not claiming the clasp*, per se.

479 On the inserted member:
This subclass is indented under subclass 478. Specific attaching means on the projection gripping member for attaching it to the flaccid* or the supporting strap.

(1) Note. Details of the strap-end- attaching portion of the inserted member must be claimed for placement herein as an original.

(2) Note. There may also be attaching means claimed connecting (a) the cavity member to the flaccid* strap, or (b) the clasp* to a support strap.

480 Having necked button sliding along length of closed, variable width loop:
This subclass is indented under subclass 465. Clasp* having (a) a projection gripping member consisting of an enlarged engaging head formed on or attached to a relatively narrower, rigid*, engaging stem (e.g., mushroom shaped) and (b) a cavity gripping member consisting of an encircling band or strip forming a variable width opening (e.g., keyhole shaped), whereby the engaging stem of the projection gripping member is moved from a wider portion of the cavity gripping member opening to a narrower portion to securely grasp the structure-to-be-secured* therebetween and prevent separation of the opposed projection and cavity gripping members.

(1) Note. The cavity gripping may be attached to the flaccid* strap or a supporting strap in such a manner as to form the closed loop when viewed as a whole.

481 Having flaccid gripping member:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having at least a portion of one gripping member formed from flaccid* material.

(1) Note. A multilink chain which acts in a flaccid* manner in all directions is considered to be flaccid* even if its individual links are rigid.

(2) Note. This subclass is not intended to include rigid* or semirigid* engaging members covered by a flaccid* piece of material.

SEE OR SEARCH THIS CLASS, SUBCLASS:
115+, for a cord or rope engaging fastener which is a component of a clasp* and holds one portion of a cord or rope relative to another portion of a cord or rope where the cord or rope has another principal function (i.e., it is the structure-to-be-secured* since it has principle utility outside this class).
703, for a permanently deformed clasp* for holding ends of a flaccid* bandlike material together (e.g., a garter clasp*).

SEE OR SEARCH CLASS:
269, Work Holders, particularly subclass 131 for a work holder using a flaccid, constrictable loop to grip an object which is being worked upon.

482 Formed from elastic material:
This subclass is indented under subclass 481. Flaccid* gripping member formed from a material having a natural springiness which both allows it to significantly elongate in at least one direction when a tensional force is applied to it in that direction and fully return to its original length (i.e., it suffers no permanent deformation) after this force is removed.

SEE OR SEARCH CLASS:
267, Spring Devices, subclass 153 for a rubber band, per se.

483 Encircling gripping member including semirigid band and operator for tightening:
This subclass is indented under subclass 455. Clasp* or support-clamp* wherein the gripping member is completely wrapped around the structure-to-be-secured* or a portion thereof and includes both a semirigid* strap which at least partially encircles the structure-to-be-secured* and an operator* for moving this strap into engagement with the structure-to-be-secured*.

(1) Note. The semirigid* strap may be a chain which is not flaccid* in all direction.

(2) Note. The operator* must not directly contact the structure-to-be-secured* to be proper for this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

19+, and the line notes thereunder, for similar art devices for bundling bales, packages, or clamping hoses or the like.

68+, for strap tightener fasteners, per se.

115+, for a cord or rope engaging fastener which is a component of a clasp* and holds one portion of a cord or rope relative to another portion of a cord or rope where the cord or rope has another principal function (i.e., it is the structure-to-be-secured* since it has principal utility outside this class).

463, for an encircling, semirigid* band tightened by a fluid force.

SEE OR SEARCH CLASS:

269, Work Holders, particularly subclasses 130+ for a work holder using a constrictable loop to grip an object which is being worked upon.

484 Encircling gripping member including semirigid band and means for adjusting girth:
This subclass is indented under subclass 455. Clasp* or support-clamp* wherein the gripping member is completely wrapped around the structure-to-be-secured* or a portion thereof and includes a semirigid* strap which at least partially encircles the structure-to-be-secured* and is provided with means permitting its length to be increased or decreased to engage different sizes or amount of structure-to-be-secured*.

(1) Note. The semirigid* strap may be a chain which is not flaccid in all directions.

SEE OR SEARCH THIS CLASS, SUBCLASS:

16+, and the line notes thereunder, for similar art devices for bundling bales, packages, or clamping hoses or the like.

68+, and 483, for strap tighteners, per se, which also have an adjustable girth.

115+, for a cord or rope engaging fastener which is a component of a clasp* and holds one portion of a cord or rope relative to another portion of a cord or rope where the cord or rope has another principal function (i.e., it is the structure-to-be-secured* since it has principle utility outside this class).

SEE OR SEARCH CLASS:

269, Work Holders, particular subclasses 130+ for a work holder using a constrictable loop to grip an object which is being worked upon.

485 With specifically shaped, nongripping, rigid structure for connecting independently operable clasps, clips, or support-clamps:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* provided with a rigid* specifically shaped, nongripping body (e.g., a yoke) or region for connecting together two or more clasp*, clips*, or support-clamps* which are each capable of functioning separately from one another and which are not formed as a one piece body.

(1) Note. The rigid* connecting structure may be either integral with or separate from the clasps*, clips*, or support-clamps* but must be for connecting one independently operable clasp*, clip*, and support-clamp* to another and not merely connecting opposing gripping members of either or both clasp*, clip*, and support-clamps* together. If the rigid* connecting structure is integral with either or both clasps*, clip*, or support-clamp*, the entire assemblage must be multipart in nature (i.e., both clasps*, clips*, or support-clamps* and the rigid* structure must not be formed together of a single piece of material).

(2) Note. A rodlike, straight connecting body or region with a constant cross section throughout its length is not considered specifically shaped.

SEE OR SEARCH THIS CLASS, SUBCLASS:

298, for plural fasteners having intermediate flaccid* connector.

305, for combined, diverse multipart fasteners.
457+, for clasps*, clips*, or support-clamps* connected to a mounting means for attachment to a rigid-supporting structure or structure-to-be-secured*.
530, for plural, resilient* opposing gripping members connected by integral or separate rigid structure.
531, for integrally combined, independently operable, diverse, resilient* clasps*, clips*, or support-clamps*.
545+, for plural, one piece, resilient fasteners connected by an integral connecting structure.
900.1, for shirt collar holders.

486 Gripping member face integral with or rigidly affixed to screw-driving portion:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* wherein an engaging surface of a gripping member is either formed from or rigidly affixed to the end portion of a screw-threaded propelling device.

SEE OR SEARCH THIS CLASS, SUBCLASS:
502, 514, 525, 535, and 569, for a screw type operator* propelling a separate relatively movable gripping member face.

487 Having either discrete flaccid or thin, nonbiasing, integral, connecting hinge:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having two opposed gripping members connected by either (1) a separate flaccid* connector, or (2) a unitary, relatively thin, nonbiasing, connecting portion which has both (a) its length no longer than its width (i.e., not elongated) and (b) a bending segment about which one of the gripping members moves in a pivoting manner (i.e., similar to a conventional pivot pin arrangement).

(1) Note. The connector's or connecting portion's length is considered to be the distance it extends between the opposed gripping members while its width is transverse to its length and larger than the similarly transverse thickness.

(2) Note. Because of the short length of the connector or connector portion, it only bends at a single location along its length.

SEE OR SEARCH THIS CLASS, SUBCLASS:
464+, for gripping members connected by a bendable, nonbiasing elongated connecting strap.
489+, for pivoted gripping members, per se.

488 Having equally spaced or continual gripping faces revolving about central axis:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having evenly spread or relatively smooth and uninterrupted, engaging surfaces with the extremities thereof equidistant from a region about which the surfaces can completely rotate (i.e., at least 360°) to aid in grasping structure-to-be-secured* or support structure.

(1) Note. This subclass includes rollers or balls which revolve about a translating central axis to engage the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
489+, for a pivoted gripping member which swings about a constantly contacted region.

489 Including pivoted gripping member:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* including a gripping member connected to another separate cooperating gripping member in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted region located on either the other member or intermediate structure linking it to the other member, and (b) have relative movement between the contacting members or member and link at the region.

(1) Note. A distinct pivoted gripping member which swings about a nonfixed point within a fixed region of and maintains constant contact with the other member or linking structure is included herein.

(2) Note. The constantly contacted region may never be a spring for biasing the gripping members but may be a coat hanger rod if just claimed as a generic type pivot rod without any further details of the hanger.

(3) Note. Gripping members which pivot only for the purpose of adjustment prior to movement between a gripping and a nongripping position are not considered proper for this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

454, for a single rigid* gripping member pivotally mounted to the fastener and wrapping the structure-to-be-secured* therearound when pivoted.

465+, for gripping members connected by a flaccid strap* or hinge.

488, for a clasp*, clip*, or support-clamp* having equally spaced or continued gripping faces revolving about a central axis.

530+, for gripping members formed from or mounted on a resilient* member without maintaining separate constant contact between the pivoted gripping member and either the other member or linking structure.

SEE OR SEARCH CLASS:

223, Apparel Apparatus, subclasses 85+ for clamps combined with a specifically claimed apparel hanger.

490 Pivoted member also slides:

This subclass is indented under subclass 489. Swinging gripping member which additionally moves in a sliding manner along the contact region of the opposed gripping member.

(1) Note. The pivoted gripping member may slide either transversely to or along the constantly contacted region.

(2) Note. A slidable engaging face (e.g., button) mounted on a pivoted nonsliding gripping member is not considered proper for this and the indented subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

492, for a pivoted gripping member which either supports or coacts with a sliding engaging face.

491 Tapered face:

This subclass is indented under subclass 490. Gripping member which has nonparallel engaging surfaces which cooperate with the engaging surfaces of the other gripping member and wedge the structure-to-be-secured* therebetween.

SEE OR SEARCH THIS CLASS, SUBCLASS:

522, for track or way guided sliding gripping members which do not pivot.

492 Pivoting gripping member either supports or coacts with sliding engaging face:

This subclass is indented under subclass 489. Swinging gripping member which either (a) carries a separate, sliding, structure-to-be-secured* engaging surface for cooperation with an opposed gripping member, or (b) coacts with an opposed gripping member which has a separate sliding, structure-to-be-secured* engaging surface carried thereon.

SEE OR SEARCH THIS CLASS, SUBCLASS:

490+, for a pivoted member which also slides along its pivot contact region.

503+, and 515+, for a pivoted gripping member having a sliding cam operator*.

505, and 517, for a pivoted gripping member having sliding, locking means*.

493 Having three or more pivotally connected gripping members:

This subclass is indented under subclass 489. Clasp*, clip*, or support-clamp* wherein at least two swinging gripping members cooperate with a third gripping member to grasp the structure-to-be-secured* therebetween.

494 Having toggle operator for moving:

This subclass is indented under subclass 489. Clasp*, clip*, or support-clamp* wherein the swinging gripping member is shifted between positions by an operator* including two rigid*

arms, the first arm being pivotally attached at opposite ends to both the second arm and to the separate, swinging gripping member while the second arm is additionally pivotally attached to the other gripping member or to structure linking it thereto, the operator* transmitting a force of varying intensity to the separate, swinging gripping member as pressure is applied by moving the common connection of the two arms in a direction transverse to the longitudinal axis of either of the arms.

(1) Note. The operator* must not directly contact the structure-to-be-secured* to be proper for this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

493, for similar structure in which one of the arms contacts the structure-to-be-secured*.

SEE OR SEARCH CLASS:

269, Work Holders, particularly subclass 228 for toggle type means actuating a movable jaw for holding an object which is being worked upon.

495 Having rigid linking arm pivotally connected to each gripping member:

This subclass is indented under subclass 489. Clasp*, clip* or support-clamp* having the swinging gripping member connected to the other gripping member by a rigid* linking element which has two spaced, nonaxially aligned, constantly contacted rotational regions, one for each gripping member.

(1) Note. While the mechanism herein may function in a togglelike manner it is not a toggle operator* since the swinging gripping member acts as one of the togglelike arms.

(2) Note. The rigid* linking arm never positively engages (i.e., exerts a holding force thereon) the structure-to-be-secured* in a gripping manner although they may touch one another.

SEE OR SEARCH THIS CLASS, SUBCLASS:

493, for similar mechanisms in which the link positively engages the structure-to-be-secured*.

494, for a pivoted engaging member moved by a separate toggle operator*.

496 With extended lever portion:

This subclass is indented under subclass 495. Linking element having a portion thereof which (a) extends beyond one of the element's rotational connections, and (b) transmits a force exerted thereon to manipulate the swinging gripping member into interlocking connection with the other gripping member.

497 Having lever end modified for attachment to support:

This subclass is indented under subclass 496. Linking element having the end of its extending portion provided with structural modification for connecting it to supporting structure (e.g., a garter strap).

498 Pivoted gripping member applies camming force:

This subclass is indented under subclass 489. Clasp*, clip*, or support-clamp wherein the periphery of the engaging surface of the swinging gripping member coacts against the engaging surface of an opposed gripping member and applies continuous and progressively increasing pressure against the structure-to-be-secured* as the swinging gripping member is swung towards its final position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

519, for a U-shaped body having a pivoted projecting member on one leg which pushes the structure-to-be-secured* through a cavity in the other leg.

499 Spring or resiliently biased about pivot:

This subclass is indented under subclass 489. Swinging gripping member which is swung about its connection and held into or out of contact with the structure-to-be-secured* by the biasing force stored in either (a) a separate spring, or (b) an integral, resilient* portion of either gripping member which does not engage the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

512, and the subsequent subclasses under 489 for similar clasp*, clips*, or support-clamps* for which there is no resilient* biasing spring or portion claimed.

518, for pivoted gripping members with springs or resilient* portions which only restrain the members to prevent relative movement but do not bias the pivoted member about its axis region (e.g., hinge locks).

500 Distinct spring:

This subclass is indented under subclass 499. Swinging gripping member wherein the biasing force on the swinging gripping member is applied by a spring separate from both gripping members.

501 Attaching solely by spring:

This subclass is indented under subclass 500. Swinging gripping member which (a) is attached to the outer gripping member only through the separate spring, and (b) maintains a separate different, contact region about which it swings but is not attached.

SEE OR SEARCH THIS CLASS, SUBCLASS:

530+, for a gripping member mounted on a resilient* or spring member without maintaining a separate, different, contact region.

502 With operator for moving pivoted member:

This subclass is indented under subclass 500. Swinging gripping member provided with an operator* to cause the swinging motion between the gripping members.

(1) Note. To be proper for this and the indented subclasses the operator* must not directly contact the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

463, for a gripping member moved directly by fluid force.

494, for a pivoted gripping member moved by a separate toggle operator*.

495+, for a pivoted gripping member pivotally connected to the other gripping member by a rigid* linking arm in a togglelike manner.

503 Camming or wedging element:

This subclass is indented under subclass 502. Operator* including either a rigid* or semi-rigid*, rotatable camming or shiftable wedging element having a contact surface which slides against, for causing the movement of, a cooperating contact surface on or attached to either the swinging gripping member or the other opposed gripping member when a rotating or shifting force is applied to the camming or wedging element and wherein the relative orientation or contour of one of the contacting surfaces causes the movement of the contacted surface of one of the gripping members to be in a direction other than (i.e., not identical to) that of the shifting or rotating movement of the element.

SEE OR SEARCH CLASS:

269, Work Holders, particularly subclasses 229+ for cam, eccentric, or wedge-type means actuating a movable jaw for holding an object which is being worked upon.

504 Pivoted or rotated element:

This subclass is indented under subclass 503. Camming or wedging element which is pivoted or rotated relative to the swinging gripping member or the opposed gripping member to cause the swinging gripping member to move.

SEE OR SEARCH THIS CLASS, SUBCLASS:

498, for a rotatably mounted cam gripping member.

502, for a rotating screw-type operator*.

505 With position locking-means for gripping members:

This subclass is indented under subclass 500. Clasp*, clip*, or support-clamp* provided with locking-means* which (a) prevents the separation of the swinging gripping member from the opposed gripping member while holding the relative position therebetween and (b) never directly contacts and grasps the struc-ture-to-be-secured* (i.e., is not itself a gripping surface).

506 Including pivoted arm:
This subclass is indented under subclass 505. Locking-means* including an arm connected to either one of the gripping members or some intermediate linking structure in a manner allowing it to swing with relative movement at its connection about a constantly contacted region.

507 Having specific surface material or irregularity on or along engaging face:
This subclass is indented under subclass 500. Clasp*, clip*, or support-clamp* wherein one of the gripping members includes either a specific, different substance or uneven surface formation forming the structure-to-be-secured* engaging surface of the gripping member.

(1) Note. Either a specific substance different in composition from that of its gripping member or details of the facial contour must be positively claimed for proper document classification placement herein as an original.

(2) Note. The facial contour may be either integral with, or on structure distinct from and attached to, the gripping member.

(3) Note. An engaging surface existing solely in a single plane and formed along a curved, looped, or bent, gripping member is not considered to be irregular since it is not uneven in the gripping direction.

508 Having specific handle structure:
This subclass is indented under subclass 500. Clasp*, clip*, or support-clamp* having a specific portion or element directly engaged by a living being for applying or removing the clasp*, clip or support-clamp* to or from a structure-to-be-secured* or for transporting it.

(1) Note. Details of the handle structure must be positively claimed for proper document classification herein as an original.

509 Coil spring:
This subclass is indented under subclass 500. Spring wound or molded in the form of at least two complete similarly shaped loops successively coiled around a common central axis.

(1) Note. The loops need not be circular in shape but the ends of the coil must at least subtend an arc at 720° or greater.

510 Having coil portion coaxial or parallel with pivotal axis:
This subclass is indented under subclass 509. Spring having either its looped portion wound about the constantly contacted region of the gripping members or its central axis collateral with that about which the gripping member swings.

511 Flat or leaf spring:
This subclass is indented under subclass 500. Spring consisting of a thin, semirigid*, resilient* strip or plate which is bendable about a line parallel to the largest planar surface thereof when applying its biasing force.

(1) Note. The spring or plate may be curved in shape, e.g., tubelike.

512 Closed by gravity or weight of structure- to-be-secured:
This subclass is indented under subclass 489. Swinging gripping member moved into a final gripping position by either (a) the force of gravity alone thereon or upon structure linked therewith, or (b) the weight of the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
454, for a pivoted, gripping member which wraps the structure-to-be-secured* about a portion of the clasp* when pivoted.

SEE OR SEARCH CLASS:
211, Supports: Racks, subclasses 50+ and 60.1+ for card, sheet, or slender article type gravity actuated, supported holders.

513 With operator means for moving pivoted member:
This subclass is indented under subclass 489. Swinging gripping member provided with an operator* to cause the swinging motion between the gripping members.

(1) Note. To be proper for this and the indented subclasses, the operator* must not directly contact the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
463, for a gripping member moved directly by fluid force.
494, for a pivoted gripping member moved by separate toggle operator*.

514 Threaded cylindrical rod and mating cavity:
This subclass is indented under subclass 513. Operator* including a helically threaded, cylindrical rod for cooperating with a relatively rotatable helically threaded, cylindrical cavity which moves relative to and along the longitudinal axis of the rod.

SEE OR SEARCH CLASS:
269, Work Holders, particularly subclasses 240+ for screw-nut type means actuating a movable jaw for holding an object which is being worked upon.

515 Camming or wedging element:
This subclass is indented under subclass 513. Operator* including either a rigid* or semi-rigid*, camming, or shiftable wedging element having a contact surface which slides against, for causing the movement of, a cooperating contact surface on or attached to either the swinging gripping member or the other opposed gripping member when a rotating or shifting force is applied to the camming or wedging element and wherein the relative orientation or contour of one of the contacting surfaces causes the movement of the contacted surface of one of the gripping members to be in a direction other than (i.e., not identical to) that of the shifting or rotating movement of the element.

SEE OR SEARCH CLASS:
269, Work Holders, particularly subclasses 229+ for cam, eccentric, or wedge-type means actuating a movable jaw for holding an object which is being worked upon.

516 Pivoted or rotated element:
This subclass is indented under subclass 515. Camming or Wedging element which is pivoted or rotated relative to the swinging gripping member or the opposed gripping member causing the swinging gripping member to move.

SEE OR SEARCH THIS CLASS, SUBCLASS:
498, for a rotatably mounted cam gripping member.
514, for a rotating screw-type operator*.

517 With position locking-means for gripping members:
This subclass is indented under subclass 489. Clasp*, clip*, or support-clamp* provided with locking-means* which (a) prevents the separation of the swinging gripping member from the opposed gripping member while holding the relative position therebetween and (b) never directly contacts and grasps the structure-to-be-secured* (i.e., is not itself a gripping surface).

518 Integral locking-means:
This subclass is indented under subclass 517. Locking-means* having all portions thereof formed on and unitary with (i.e., not separately movable or rigidly attached to) the opposed gripping members.

519 Having inserted and receiving interlocking engaging faces:
This subclass is indented under subclass 489. Clasp*, clip*, or support-clamp* having a projecting engaging surface portion on one gripping member (e.g., button, hook) inserted within a cavity engaging surface portion on the opposed gripping member (e.g., open loop, slot member) which receives both it and the structure-to-be-secured* in such a manner as to subsequently restrict their relative movement in the direction force is transmitted thereto by the structure-to-be-secured*.

(1) Note. The mere intermeshing or mating of opposed gripping members is not considered to be interlocking unless the intermeshing or mating portions tightly interfit or are otherwise held together to restrict the separation of gripping members.

520 Resilient gripping member:
This subclass is indented under subclass 519. Clasp*, clip*, or support-clamp* having at least one gripping member (a) made from a resilient* material, or (b) shaped in such a manner that it is resiliently biased, to facilitate their coupling.

SEE OR SEARCH THIS CLASS, SUBCLASS:
499+, for interlocking gripping members resiliently biased about their pivotal connection and into or out of contact with the structure-to-be-secured*.

521 Having specific surface material or irregularity on or along engaging face:
This subclass is indented under subclass 489. Clasp*, clip*, or support-clamp* wherein one of the gripping members includes either a specific, different substance or uneven surface formation forming the structure-to-be-secured* engaging surface of the gripping member.

(1) Note. Either a specific substance different in composition from that of its gripping member or details of the facial contour must be positively claimed for proper document classification herein as an original.

(2) Note. The facial contour may be either integral with, or on structure distinct from and attached to, the gripping member.

(3) Note. An engaging surface existing solely in a single plane formed along a curved, looped, or bent gripping member, is not considered to be irregular since it is not uneven in the gripping direction.

522 Including track or way guided and retained gripping member:
This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* including two separate, opposed gripping members permanently retained by and linked to each other or an intermediate structure by two distinct, rigid* or semirigid* formations which (1) are each integral with or attached to a different one of the members, and (2) have mutually cooperating surfaces both (a) in sliding or rolling contact with each other, and (b) restricting the movement of one of the gripping members relative to the other gripping member to a substantially single, primary direction along a linear or curvilinear path when moving between a gripping and nongripping position.

(1) Note. Gripping members which slide only for the purpose of adjustment prior to movement between a gripping and a nongripping position are not considered proper for this subclass.

(2) Note. The gripping members are never intended to be connected to each other by an operator* (e.g., threaded rod or piston/cylinder) alone.

SEE OR SEARCH THIS CLASS, SUBCLASS:
459+, for dissociable track or wedge guided gripping members.
463, for gripping member actuated by fluid force.
464+, for interlocking, sliding gripping members connected by a bendable strap.
486, and 569, for gripping members connected to each other by a threaded bar.
489+, for a pivotally guided gripping member.
568+, for gripping members connected by operators*.

523 Biased by distinct spring:
This subclass is indented under subclass 522. Gripping members having a spring separate from either gripping member which applies a biasing force thereon causing the relative movement therebetween and into or out of contact with the structure-to-be-secured*.

524 With operator for moving guided member:
This subclass is indented under subclass 522. Gripping members provided with an operator* to cause the motion between the gripping members.

(1) Note. To be proper for this and the indented subclass the operator* must not directly contact the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
463, for a gripping member moved directly by fluid force.

525 Threaded cylindrical rod and mating cavity:
This subclass is indented under subclass 524. Operator* including a helically threaded, cylindrical rod for cooperating with a relatively rotatable threaded, cylindrical cavity which moves relative to and along the longitudinal axis of the rod.

SEE OR SEARCH CLASS:
269, Work Holders, particularly subclasses 240+ for screw-nut type means actuating a movable jaw for holding an object which is being worked upon.

526 Track or way oblique to path of gripping member:
This subclass is indented under subclass 522. Rigid* or semirigid* formations having cooperating surfaces which are at an acute or obtuse angle to the linear or curvilinear path of the moving gripping member for causing firmer engagement of the structure-to-be-secured* by the gripping members.

SEE OR SEARCH THIS CLASS, SUBCLASS:
488, for a guided roller or ball which rolls along an inclined surface to grasp a structure-to-be-secured*.
524, for an operator* having a separate camming or wedging element for moving a gripping member along a linear or curvilinear path.

527 With position locking-means for gripping members:
This subclass is indented under subclass 522. Clasp*, clip*, or support-clamp* provided with locking-means* which (a) prevents the separation and holds the relative position of the gripping members, and (b) never directly contacts and grasps the structure-to-be-secured* (i.e., is not itself a gripping surface).

528 Integral locking-means:
This subclass is indented under subclass 527. Locking means* having all portions thereof formed on and unitary with (i.e., not separately movable or rigidly attached to) the opposed gripping members.

529 With specific mounting means for attaching to flaccid supporting structure or structure-to-be-secured:
This subclass is indented under subclass 522. Clasp*, Clip*, or support-clamp* provided with specific means for attaching it to a flaccid* (a) supporting structure or (b) structure-to-be-secured*.

(1) Note. The actual mounting means, per se, must be positively claimed for the combination to be considered proper for this subclass. The mere claiming of a clasp*, clip*, or support-clamp* which is "adapted" for mounting is considered insufficient for placement herein. The clasp*, clip*, or support-clamp*, after being mounted to the supporting structure or the structure-to-be-secured* is then capable of gripping a structure-to-be-secured* or supporting structure, respectively.

(2) Note. This subclass does not include peculiar mounting formations which either (1) (a) require the supporting structure to first pass through the passageway formed by opposed structure-to-be-secured* engaging surfaces, and (b) are extensions of this passageway simply located further there along or (2) are intended to be capable of alternately being utilized to grip the structure-to-be-secured* (e.g., not plural clasping sections).

(3) Note. See Lines With Other Classes in the class definition of this class for the line between Classes 24 and 248. Also, see the search note to Class 24 in the class definition of Class 248.

SEE OR SEARCH THIS CLASS, SUBCLASS:

298+, for plural fasteners having an intermediate flaccid* connector.

305+, for the combination of two or more diverse multipart fasteners of this class.

457+, for a clasp*, clip*, or support- clamp* provided with mounting means for attaching to a rigid* or semirigid* supporting structure or structure-to-be-secured*.

478+, 489, 497, and 532+, for other types of clasps*, clips or support-clamps* provided with mounting means for attaching to a flaccid* supporting structure or structure-to-be-secured*.

530 Having gripping member formed from, biased by, or mounted on, resilient member: This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having a gripping member which either (a) is formed from a single piece of resilient* material having opposed engaging surfaces thereon which are moved into or out of engagement with the structure-to-be-secured* and relative to each other by the resiliency of the material, (b) is formed from a single piece of resilient* material with an engaging surface which coacts against and is attached to a separate gripping member having an opposed engaging surface which is moved into or out of engagement with the structure-to-be-secured* and relative to the first engaging surface by the resiliency of the material, or (c) is provided with an engaging surface and resiliently urged (i.e., biased) against or attached to a separate, relatively movable gripping member and its opposed engaging surface by a separate element made of resilient* material applying a force moving the opposed engaging surfaces into or out of gripping engagement with the structure-to-be-secured*.

(1) Note. While a broad disclosure of resiliency is sufficient for placement hereunder, a gripping member not clearly disclosed as being formed from, or mounted on, a resilient* member (e.g., such disclosure absent from a specification with no movement shown of an engaging surface relative to an opposed engaging surface during operation) has been placed as an original elsewhere under subclass 455 (e.g., 570+, if formed of a single piece of material) and discretionally cross-referenced to this subclass or its indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

462, 470+, 482, 499+, and 523, for other types of resiliently formed or biased gripping members.

485, for independently operable resilient* clasp*, clips*, or support-clamps* connected by specifically shaped, nongripping, rigid* structure.

900.1, for resilient* shirt collar holders.

SEE OR SEARCH CLASS:

269, Work Holders, particularly subclass 254 for bias type means actuating a movable jaw for holding an object which is being worked upon.

531 Integrally combined, independently operable, diverse clasps, clips, or support-clamps: This subclass is indented under subclass 530. Clasp*, clip*, or support-clamp* combined, through a common body portion, with another separately functioning, differently shaped or constructed clasp*, clip*, or support-clamp*.

(1) Note. Both fasteners must be clasps*, clips* or support clamps* and must be claimed for proper placement herein. The combination of a clasp*, clip* or support-clamp* with a different type of fastener (e.g., a hook or loop) would be classified according to which fastener occurs first in the Class 24 schedule.

SEE OR SEARCH THIS CLASS, SUBCLASS:

305+, for the combination of two or more diverse multipart fasteners of this class.

457+, for a clasp*, clip*, or support- clamp* connected to a mounting means for

attachment to a rigid* supporting structure or structure-to-be-secured*.

485, for independently operable clasps*, clips* or support-clamps* connected by a rigid* nongripping specifically shaped portion (e.g., a yoke).

532+, for clasps*, clips*, or support-clamps* having specific mounting means for attaching to flaccid* supporting structure or structure-to-be-secured*.

532 With specific means for mounting to flaccid supporting structure or structure-to-be-secured:

This subclass is indented under subclass 550. Clasp*, clip* or support-clamp* provided with specific means for attaching it to a flaccid* (a) supporting structure, or (b) structure-to-be-secured*.

(1) Note. Details of the actual mounting means, per se, must be positively claimed for the combination to be considered proper for this subclass. The mere claiming of a clasp*, clip*, or support-clamp* which is "adapted" for mounting is considered insufficient for placement herein. The clasp*, clip*, or support-clamp*, after being mounted to the supporting structure or the structure-to-be-secured* is then capable of gripping a structure-to-be-secured* or supporting structure, respectively.

(2) Note. This subclass does not include peculiar mounting formations which either (1) (a) require the supporting structure to first pass through the passageway formed by opposed structure-to-be-secured* engaging surfaces and (b) are extensions of this passageway simply located further therealong or (2) are intended to be capable of alternately being utilized to grip the structure-to-be-secured* (e.g., not plural clasping sections).

(3) Note. See Lines With Other Classes in the class definition of this class for the line between Classes 24 and 248. Also see the search note to Class 24 in the class definition of Class 248.

SEE OR SEARCH THIS CLASS, SUBCLASS:

298+, for plural fasteners having an intermediate flaccid* connector.

305+, for the combination of two or more diverse multipart fasteners of this class.

457+, for a clasp*, clip*, or support- clamp* provided with mounting means for attaching to a rigid* or semirigid* supporting structure or structure-to-be-secured*.

478+, 489, 497, and 529, for other types of clasps*, clips* or support-clamps* provided with mounting means for attaching to a flaccid* supporting structure or structure-to-be-secured*.

531, for integrally combined, independently operable, diverse clasps*, clips*, or support-clamps*.

533 Mounting means made entirely from integral wire portion of resilient gripping member:

This subclass is indented under subclass 532. Attaching means completely constructed from a slender semirigid* or rigid* filament which is unitary with (i.e., not separately movable or rigidly attached to) a resilient* portion of the gripping member.

534 Wire coiled about flaccid supporting structure:

This subclass is indented under subclass 533. Filament having a portion thereof wound in the form of at least two complete, similarly shaped loops successively coiled around a common central axis coincident with the longitudinal axis of the flaccid* supporting structure.

(1) Note. The loops need not be circular in shape but the ends of coil must at least subtend an arc of 720° or greater.

SEE OR SEARCH THIS CLASS, SUBCLASS:

549+, for one piece uniform cross section resilient* clasps*, clips*, or support-clamps* having coiled portions.

567, for multipart or nonsingle piece opposed engaging faces biased by a resilient* coiled wire.

535 With operator for moving biased engaging face:
This subclass is indented under subclass 530. Clasp*, clip*, or support-clamp* provided with an operator* to cause the motion of the opposed engaging surface against the biasing force exerted by the resilient* material.

(1) Note. To be proper for this and the indented subclasses the operator* must not directly contact the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
463, for a gripping member moved directly by fluid force.

536 Camming or wedging element:
This subclass is indented under subclass 535. Operator* including either a rigid* or semi-rigid*, rotatable camming or shiftable wedging element having a contact surface which slides against, for causing the movement of, a cooperating contact surface on or attached to at least on gripping member or portion thereof when a rotating or shifting force is applied to the camming or wedging element and wherein the relative orientation or contour of one of the contacting surfaces causes the movement of the contacted surface of one of the gripping members or portions to be in a direction other than (i.e., not identical to) that of the shifting or rotating movement of the element.

SEE OR SEARCH CLASS:
269, Work Holders, particularly subclasses 229+ for cam, eccentric, or wedge type means actuating a movable jaw for holding an object which is being worked upon.

537 Encircling sleeve type element:
This subclass is indented under subclass 536. Camming or wedging element comprising a ringlike body looped completely around the gripping member and either (a) the opposed gripping member, or (b) the opposed portion of the same gripping member, and traveling along the length of the contacted surfaces to cause the movement thereof.

538 Pivoted or rotated element:
This subclass is indented under subclass 536. Camming or wedging element which is pivoted or rotated relative to at least one gripping member or a portion thereof to cause its contacted surface to move.

SEE OR SEARCH THIS CLASS, SUBCLASS:
498, for a rotatably mounted cam gripping member.
535, for similar devices employing a rotating screw-type operator*.

539 Element pivots or rotates in plane parallel to plane bisecting opposed engaging faces:
This subclass is indented under subclass 538. Pivoted or rotated element which pivots or rotates through a plane substantially parallel and adjacent to a mathematical plane which (a) bisects the space between opposed, structure-to-be-secured* engaging surfaces, and (b) is radially perpendicular to the mathematical line about which the element swings.

540 Elongated element with pivot between cam and handle portions:
This subclass is indented under subclass 538. Pivoted or rotated element having (a) a generally slender shape and one end portion intended to be engaged by a living being for pivoting or rotating the element and the other end portion serving as the contact surface, and (b) the attachment region about which the element swings, being positioned between the end portions of the slender element.

SEE OR SEARCH THIS CLASS, SUBCLASS:
565, and 577+ for gripping members formed from, or mounted on, resilient* members and having specific handle structure for the manipulation or transportation of the clasp*, clip* or support-clamp*.

541 For moving engaging face of U-shaped gripping member:
This subclass is indented under subclass 540. Pivoted or rotated element for moving the engaging surface (i.e., the leg) of a separate, generally U-shaped, resilient* gripping mem-

ber into or out of contact with the structure-to-be-secured*.

542 With position locking-means for engaging faces:
This subclass is indented under subclass 530. Clasp*, clip*, or support-clamp provided with locking-means* which both (a) prevents the separation and holds the relative position of the opposed engaging surfaces, and (b) never directly contacts and grasps the structure-to-be-secured* (i.e., is not itself an engaging surface).

543 Integral locking-means:
This subclass is indented under subclass 542. Locking-means* having all portions thereof formed on and unitary with (i.e., not separately movable or rigidly attached to) at least one gripping member or portion thereof.

544 Pivoted lock member:
This subclass is indented under subclass 542. Locking-means* including an element connected to at least one gripping member or portion thereof in a manner allowing it to swing with relative movement at its connection about a constantly contacted region.

545 Opposed engaging faces on gripping member formed from single piece of resilient material:
This subclass is indented under subclass 530. Resilient* gripping member formed from a one piece body with opposing portions thereof forming the engaging surfaces of the gripping member.

(1) Note. The resilient* gripping member may be part of a multipart fastener, provided the gripping member itself is a single piece body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
543, for integral position locking-means to prevent movement of an opposed engaging face of a single piece body.

546 Piece totally forms clasp, clip or support-clamp and has shaped, wirelike or bandlike configuration with uniform cross section throughout its length:
This subclass is indented under subclass 545. Clasp*, clip*, or support-clamp* completely constructed from the resilient* body which has (a) a strandlike or thin, striplike form and (b) a constant, uninterrupted, transverse cross section from one end to the other end of the form.

(1) Note. To have continuous or uninterrupted transverse cross section there must not be any cut outs of holes in the resilient* member although a minor (i.e., very small or unclaimed) amount of corner rounding on rectangular or similar cross-sections is permissible. Surface indentations or cuts which interrupt the cross-section are not considered proper hereunder. A bandlike configuration may be wider than it is long.

(2) Note. While the resilient* gripping member must be formed from a single piece it may have decorative buttons or the like attached thereto provided they do not affect the operation of the clasp*, clip*, or support-clamp.

SEE OR SEARCH THIS CLASS, SUBCLASS:
545+, for a single resilient* gripping member of varying cross sections, having cut outs or holes, having an endless ringlike body, or having structure which aids in the grasping of the structure-to-be-secured* or the actuation of the gripping member.
570+, for a single rigid* gripping member which grasps a deformable structure-to-be-secured*.

547 Opposed faces located in and bias towards common plane in nonuse position:
This subclass is indented under subclass 546. Resilient* body are positioned, when not engaging the structure-to-be-secured*, such that they are in a single plane (i.e., coplanar) and are resiliently biased in a direction transversely of and toward that plane.

(1) Note. Portions of the gripping member which do not contact the structure-to-be-secured* need not be in the same plane as the engaging surfaces.

(2) Note. Engaging faces which intersect or overlap each other in their nonuse position are not usually considered to be in the same plane.

SEE OR SEARCH THIS CLASS, SUBCLASS:

548, 551+, and 552+, for a gripping member having portions which intersect in a nonplanar manner.

549, for a gripping member having portions which overlap in a coillike manner.

548 Resilient gripping member having tightly twisted portion:

This subclass is indented under subclass 546. Resilient* body having two portions thereof which are closely, securely, and successively wrapped about one another by each portion subtending an arc of 720° or greater.

(1) Note. Both portions of the gripping member must cooperate in the wrapping or twisting to be proper herein. A portion which is just wrapped about a passive (e.g., straight) portion is considered to be coiled and not twisted. A coiled portion which is merely threaded through another coiled portion is not considered to be twisted since it is not securely wrapped thereabout.

549 Resilient gripping member having coiled portion:

This subclass is indented under subclass 546. Resilient* body having a portion thereof wound or molded in the form of at least two complete, similarly shaped loops successively coiled around a common central axis.

(1) Note. The loops need not be circular in shape but the ends of the coil must at least subtend an arc of 720° or greater.

(2) Note. See (1) Note of subclass 548 for the distinction between coils and twists.

SEE OR SEARCH THIS CLASS, SUBCLASS:

534, for a clasp*, clip*, or support-clamp* having specific mounting means coiled about the longitudinal axis of a flaccid* supporting structure or structure-to-be-secured*.

567, for multipart or nonsingle piece opposed engaging faces biased by a resilient* coiled wire.

550 Convolutions of coil form faces:

This subclass is indented under subclass 549. Loops forming the opposed engaging surfaces of the gripping member.

551 Relatively movable segments of resilient gripping member contact and cross in nonuse position:

This subclass is indented under subclass 546. Resilient* body wherein segments thereof are positioned, when not gripping the structure-to-be-secured*, such that they touch and completely intersect each other at least one location and are resiliently biased toward each other.

(1) Note. To completely intersect, one portion must pass entirely over both edges of the opposed portion of the body (i.e., not overlap).

552 Segments form opposed engaging faces:

This subclass is indented under subclass 551. Resilient* body in which the intersecting and touching segments also form the surfaces for engaging the structure-to-be-secured*.

553 Having specific handle structure:

This subclass is indented under subclass 552. Resilient* body having a specific portion or element directly engaged by a living being for either applying or removing it to or from a structure-to-be-secured* or for transporting it.

(1) Note. Details of the handle structure must be positively claimed for proper document classification herein as an original.

554 Having specific handle structure:

This subclass is indented under subclass 551. Resilient* body having a specific portion or element directly engaged by a living being for either applying to removing it to or from a structure-to-be-secured* or for transporting it.

(1) Note. Details of the handle structure must be positively claimed for proper

document classification herein as an original.

555 Terminal end of resilient member having engagement or disengagement enhancing structural modifications:
This subclass is indented under subclass 546. Resilient* body having an end thereof bent or curved away from the nearest engaging surface and into a specific shape to allow easier engagement or disengagement of this surface with the structure-to-be-secured*.

(1) Note. The curvature of the ends usually prevents their snagging the structure-to-be-secured* during movement relative thereto.

SEE OR SEARCH THIS CLASS, SUBCLASS:
543, for integral locking-means* formed on the ends of the gripping member.
556, for a resilient* body having an engaging surface with a specific configuration or modification or for a resilient* body having its ends curved towards the structure-to-be-secured to aid in the gripping thereof.

556 Having specific surface irregularity on or along engaging face:
This subclass is indented under subclass 546. Resilient* body wherein a specific, uneven surface formation forms one of the structure-to-be-secured* engaging surfaces.

(1) Note. Details of the facial contour must be positively claimed for proper document classification herein as an original.

(2) Note. An engaging surface existing solely in a single plane and formed along a curved, looped, or bent gripping member is not considered to be irregular since it is not uneven in the gripping direction.

(3) Note. A slip resistant coating, sleeve, or cover placed on, or attached to, the engaging portion of the gripping member would not be considered proper for placement hereunder since the gripping member, taken as a whole, would not consist of a single piece of material.

557 Having specific handle structure:
This subclass is indented under subclass 545. Clasp*, clip*, or support-clamp* having a specific portion or element directly engaged by a living being for either applying or removing the clasp*, clip*, or support-clamp* to or from a structure-to-be-secured* or for transporting it.

(1) Note. Details of the handle structure must be positively claimed for proper document classification herein as an original.

SEE OR SEARCH THIS CLASS, SUBCLASS:
540+, for a pivoted or rotated, camming or wedging operator* element with a handle portion on the opposite side of the pivot from the camming or wedging portion.

558 Movably attached to gripping member:
This subclass is indented under subclass 557. Living being engaged portion or element which both moves relative to, and is not integrally or rigidly attached to, the gripping member.

559 Interlocking faces:
This subclass is indented under subclass 545. Engaging surfaces having a projecting portion of one engaging surface (e.g., button, hook) inserted within a cavity portion of the opposed gripping surface (e.g., open loop, slot member) which receives both it and the structure-to-be-secured* in such a manner as to subsequently restrict their relative movement in the direction force is transmitted thereto by the structure-to-be-secured*.

(1) Note. The mere intermeshing or mating of opposed engaging surfaces is not considered to be interlocking unless the intermeshing or mating portions tightly interfit or are otherwise held together to restrict the separation of the engaging surfaces.

560 With reinforcing member:
This subclass is indented under subclass 545. Resilient* gripping member having a separate strengthening element which gives added strength or resiliency to the gripping member.

561 Having surface irregularity on or along engaging face:
This subclass is indented under subclass 545. Resilient* gripping member wherein a specific, uneven surface formation forms one of the structure-to-be-secured* engaging surfaces.

(1) Note. Details of the specific facial contour must be positively claimed for proper document classification herein as an original.

(2) Note. An engaging surface existing solely in a single plane and formed along a curved, looped, or bent gripping member, is not considered to be irregular since it is not uneven in the gripping direction.

(3) Note. A slip resistant coating, sleeve, or cover placed on, or attached to, the engaging portion of the gripping member would not be considered proper for placement hereunder since the resilient* member, taken as a whole, would not consist of a single piece of material.

562 Corrugated or toothed face:
This subclass is indented under subclass 561. Engaging surface having at least two (a) engaging recesses distinct from any initial taper of the engaging surface, or (b) engaging projections or pointed teeth.

(1) Note. The initial taper of the engaging surface is commonly used for smoother, easier, or guiding initial contact with the structure-to-be-secured* as it enters the resilient* gripping member. It is not considered a recess but may form one side of a projection or tooth.

563 Clasp*, clip*, or support-clamp* cut or shaped from a single sheet of resilient, uniformly thick, planar material:
This subclass is indented under subclass 545. Clasp*, clip*, or support-clamp* cut or shaped completely from a one-piece, unitary body made from a planar material of nonvarying thickness.

(1) Note. Molded bodies are not considered proper for placement herein.

SEE OR SEARCH THIS CLASS, SUBCLASS:
546+, for clasps*, clips*, or support-clamps* formed from a single, continuous cross section, resilient* member which forms the opposing faces of the gripping member.

564 Having specific surface material or irregularity on or along engaging face:
This subclass is indented under subclass 530. Clasp*, clip*, or support-clamp* wherein one of the gripping members includes either a specific, different substance or uneven surface formation forming the structure-to-be-secured* engaging surface of the gripping member.

(1) Note. Either specific substance different in composition from that of its gripping member or details of the specific facial contour must be positively claimed for proper document classification herein as an original.

(2) Note. The facial contour may be either integral with or distinct from the gripping member.

(3) Note. An engaging surface existing solely in a single plane and formed along a curved, looped, or bent gripping member, is not considered to be irregular since it is not uneven in the gripping direction.

SEE OR SEARCH THIS CLASS, SUBCLASS:
485, for independently operable resilient* clasps*, clips*, or support-clamps* connected by specifically shaped non-gripping, rigid* structure.
900.1, for resilient* shirt collar holders.

565 Having specific handle structure:
This subclass is indented under subclass 530. Clasp*, clip*, or support-clamp* having a specific portion or element directly engaged by a living being either for applying or removing the clasp*, clip*, or support-clamp* to or from a structure-to-be-secured* or for transporting it.

(1) Note. Details of the handle structure must be positively claimed for proper document classification herein as an original.

SEE OR SEARCH THIS CLASS, SUBCLASS:

540+, for a pivoted or rotated, camming or wedging operator* element with a handle portion on the opposite side of the pivot from the camming or wedging portion.

566 Including resilient biasing wire:

This subclass is indented under subclass 530. Resilient* material consisting of an elongated filament bent, shaped, or held in such a manner as to apply the force for moving the opposed engaging surface into or out of gripping engagement.

SEE OR SEARCH THIS CLASS, SUBCLASS:

546+, for a clasp*, clip*, or support- clamp* formed solely from a resilient* biasing wire which forms the opposed engaging surfaces of the gripping member.

567 Coiled wire:

This subclass is indented under subclass 566. Elongated filament wound or molded in the form of at least two complete, similarly shaped loops successively coiled around a common central axis.

(1) Note. The loops need not be circular in shape but the ends of the coil must at least subtend an arc of 720° or greater.

(2) Note. See (1) Note of subclass 548 for the distinction between coils and twists.

SEE OR SEARCH THIS CLASS, SUBCLASS:

534, for a coiled wire mounting means for attaching the clasp*, clip*, or support-clamp* to flaccid* supporting structure or structure-to-be-secured*.

549+, for one-piece uniform cross section resilient* clasps*, clips*, or support-clamps* having coiled portions.

568 Having gripping member shifted by operator:

This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* having a gripping member provided with an engaging surface which cooperates with an opposed engaging surface on a separate gripping member and which is moved into or out of a gripping engagement by an operator*.

(1) Note. To be proper for this and the indented subclass the operator* must not directly contact the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:

456, 481, 483, 502+, 513+, 524+, and 535+, for operators* used with specific types of clasps*, clips*, or support-clamps*.

486, for a gripping member having its engaging surface integral with a screw-driving portion.

569 Threaded cylindrical rod and mating cavity:

This subclass is indented under subclass 568. Operator* including a helically threaded, cylindrical rod for cooperating with a relatively rotatable helically threaded, cylindrical cavity which moves relative to and along the longitudinal axis of the rod.

SEE OR SEARCH CLASS:

269, Work Holders, particularly subclasses 240+ for screw-nut type means actuating a movable jaw for holding an object which is being worked upon.

570 Formed from single rigid piece of material:

This subclass is indented under subclass 455. Clasp*, clip*, or support-clamp* consisting of a single gripping member formed or shaped from a rigid* material having opposed, relatively stationary, engaging surfaces between which either (a) flaccid* or semirigid* material forming the structure-to-be-secured* or a support therefor is forceably wedged, or (b) material of the structure-to-be-secured* or support therefor is relatively turned, to cause the grasping force thereon by the engaging surfaces.

(1) Note. See (1) Note of subclass 530 for the line between that subclass and this one when it is not disclosed whether a gripping member is formed from a resilient* or rigid* material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

545+, for a single, resilient* gripping member which moves when applied to a structure-to-be-secured*.

571 Having specific surface irregularity on or along engaging face:

This subclass is indented under subclass 570. Gripping member wherein a specific, uneven surface formation forms one of the structure-to-be-secured* engaging surfaces.

(1) Note. Details of the facial contour must be positively claimed for proper document classification herein as an original.

(2) Note. An engaging surface existing solely in a single plane and formed along a curved, looped, or bent gripping member is not considered to be irregular since it is not uneven in the gripping direction.

(3) Note. A slip resistant coating, sleeve, or cover placed on, or attached to, the engaging portion of the gripping member would not be considered proper for placement hereunder since the gripping member, taken as a whole, would not consist of a single piece of material.

572.1 SEPARABLE-FASTENER OR REQUIRED COMPONENT THEREOF (E.G., PROJECTION AND CAVITY TO COMPLETE INTERLOCK):

This subclass is indented under the class definition. Subject matter comprising a separable-fastener or a required component of a separable fastener (i.e., one of an interlocking member).

(1) Note. Securing means having a component which penetrates or forms a passageway through the structure to be secured and then contacts and interlocks with a dissociable cooperating member are not considered proper for this and the indented subclasses and are generally found below in subclass 706 and its indented subclasses. In addition, securing means which penetrate through the structure to be secured to form and interlock with an aperture in the structure to be secured are also not in subclasses 706 and 442.

(2) Note. See (6) Note of the class definition for patent placement procedure.

SEE OR SEARCH CLASS:

200, Electricity: Circuit Makers and Breakers, subclass 61.58 for seat belt buckles with an electric s witch.

573.09 With third detached member completing interlock (e.g., hook type):

This subclass is indented under subclass 572.1. Subject matter provided with a third, dissociable member which is not directly attached to the two other mating interlocking members and which concurrently engages both of them when they are in their final fastening postion to complete the interlocking connection.

(1) Note. This interlocking member may either be totally separate from or linked with the structure to be secured.

(2) Note. A separable fastener which includes three separate members and has at least one member which is capable of completing a useful interlocking connection between a section of the structure to be secured to which it is mounted and either another section thereof or a support therefor by selectively interlocking with either of the remaining two dissociable members without requiring (a) all three members to be intergaged to complete interlock or (b) their connections to be done in a specific sequence with each other is not considered proper for this and the indented subclasses and is found below in subclasses 605, 630, or 697.

SEE OR SEARCH THIS CLASS, SUBCLASS:

287, for a detachable fastener connecting two freight containers.

289+, for trim molding fasteners.

305+, and 379.1, for a separable fastener member having two distinct and

diversely shaped locking faces which are intended to engage a different, separate, dissociable mating member and indepently interlock therewith (i.e., their separate interlocking operations have no effect on each other and they can be engaged in any sequence) to complete a useful connection utilizing all three of the dissociable members.

453+, for a fastener which includes three separate components and has two of these components both formed from the material of the structure to be secured or a support therefor and aligned with each other when the fastening operation is completed.

SEE OR SEARCH CLASS:

59, Chain, Staple, and Horseshoe Making, 85 for a detachable chain link.

403, Joints and Connections, 292 for two rigid or semi-rigid structural members having their ends joined together by a fastening member inserted into an opening located in each.

573.11 Quick connect or release (e.g., spring and detent):
This subclass is indented under subclass 573.09. Subject matter which may be connected or disconnected rapidly by a simple motion.

574.1 For jewelry:
This subclass is indented under subclass 573.09. Subject matter which is intended to be used in association with personal adornment articles such as necklaces, watches, braceletes, etc.

575.1 Including eyelet (e.g., shoes):
This subclass is indented under subclass 573.09. Subject matter including a small hole which is used for fastening with a cord or hook.

576.1 For key holder:
This subclass is indented under subclass 573.09. Subject matter whose intended use is to carry keys (e.g., key ring).

577.1 For tire chain, strap, etc. (e.g., rotatable or sliding spring gate):
This subclass is indented under subclass 573.09. Subject matter whose intended use is as an anti-skid device for a motor vehicle (snow chain, etc.).

578.1 For apparel and related accessories:
This subclass is indented under subclass 573.1. Subject matter that is intended to be used as or with a person's accutrements.

578.11 Button, button related:
This subclass is indented under subclass 578.1. Subject matter for a circumferential garment fastener to be used in registry with a loop or hole.

578.12 Snap (e.g., key hole type):
This subclass is indented under subclass 578.11. Subject matter that engages swiftly under pressure.

578.13 Post and reciever (e.g., pin and slot):
This subclass is indented under subclass 578.1. Subject matter including a peg-like member and a slot or hole to recieve said member.

578.14 Hook (e.g., within a cavity):
This subclass is indented under subclass 578.1. Subject matter which is a sharply bent catch.

578.15 Belt, strap, etc. (e.g., buckle or snap fastener):
This subclass is indented under subclass 578.1. Subject matter for use with a girdling or encircling band.

578.16 Glove:
This subclass is indented under subclass 578.1. Subject matter for use with a fitted covering for a hand.

578.17 Purse, wallet, etc.:
This subclass is indented under subclass 578.1. Subject matter for use with a hand bag, pocket case, etc. for carrying personal items.

579.09 Belt, strap, harness, etc.:
This subclass is indented under subclass 573.09. Subject matter for use with a long, narrow strip of pliant material.

579.11 For safety belt buckle, strap, harness, etc.:
This subclass is indented under subclass 579.09. Subject matter used to restrain motion or hold a body safely.

580.1 Sliding or rotating element:
This subclass is indented under subclass 573.09. Subject matter *

580.11 Element having key slot:
This subclass is indented under subclass 580.1. Subject matter *

581.1 Resilient element (e.g., snap type):
This subclass is indented under subclass 573.09. Subject matter having elasticity such that it will tend to regain its original shape after it is deformed or compressed.

581.11 For upholstery, panel, trim strip, etc. (e.g., spring biased):
This subclass is indented under subclass 581.1. Subject matter for use with a covering fabric, curtain, etc.

581.12 Link with pivoted gate:
This subclass is indented under subclass 581.1. Subject matter which is a single connecting element.

582.1 Hook:
This subclass is indented under subclass 573.09. Subject matter which is a sharply bent catch.

582.11 Snap with spring bias (e.g., gate):
This subclass is indented under subclass 582.1. Subject matter having a clasp which operates swiftly and smartly.

582.12 For connecting chains (e.g. opposed pivoted hook):
This subclass is indented under subclass 582.1. Subject matter which is used to connect two lengths of links.

582.13 For heavy load bearing device (e.g., chain, rope, cable, etc.):
This subclass is indented under subclass 582.1. Subject matter which is used with equipment for towing, hoisting, etc.

582.14 Haim, harness, whiffletree, rein, etc.:
This subclass is indented under subclass 582.13. Subject matter which is used with draft animals.

583.1 For chain, rope, cable, etc.:
This subclass is indented under subclass 573.09. Subject matter which is a flexible fetter for transmitting or restraining motion.

583.11 Coupler with sliding socket to complete interlock:
This subclass is indented under subclass 583.1. Subject matter which is used to connect two or more flexible fetters.

584.1 Each mating member having similarly shaped, sized, and operated interlocking face or intermeshable:
This subclass is indented under subclass 572.1. Separable-fastener wherein the interlocking faces of each of the two dissociable, mating members have (a) approximately the same structural configuration and size, and (b) require the same manipulation to maneuver them together into mutual interlocking contact.

(1) Note. For a separable-fastener to be proper for this subclass and the indented subclasses, the interlocking faces of the mating members must be capable of receiving each other to the same degree or alternately when maneuvered into contact. Mating members which have a similar shape, but which have a variation in sizes so that one member always surrounds a greater area of the other member are classified in other subclasses located below.

SEE OR SEARCH THIS CLASS, SUBCLASS:
585.1, and 391+, for zippers having two similarly shaped, sized, and operated, coiled interlocking surfaces.

585.1 Zipper type (e.g., slider):
This subclass is indented under subclass 584.1. Subject matter including two facing rows of metal or plastic teeth or coils or strips which interlock to complete a fastening.

585.11 For garment (e.g., with ribs and grooves interlocking elements):
This subclass is indented under subclass 585.1. Subject matter used for fastening clothing.

585.12 For container (e.g., bag):
This subclass is indented under subclass 585.1. Subject matter used for fastening such items as plastic bags and the like.

586.1 Resilient element:
This subclass is indented under subclass 584.1. Subject matter having elasticity such that it will tend to regain its original shape after it is deformed or compressed.

586.11 Snap (e.g., identical elements):
This subclass is indented under subclass 586.1. Subject matter having a clasp which operates swiftly and smartly.

587.1 Clasp (e.g., spring type):
This subclass is indented under subclass 584.1. Subject matter used to grasp two elements together.

587.11 For jewelry (e.g., buckle type):
This subclass is indented under subclass 587.1. Subject matter which is intended to be used in association with personal adornment articles such as necklaces, watches, braceletes, etc.

587.12 For belt or strap:
This subclass is indented under subclass 587.1. Subject matter for use with a long, narrow strip of pliant material.

588.1 Hook:
This subclass is indented under subclass 584.1. Subject matter which is a sharply bent catch.

588.11 For belt, strap, etc. (e.g., with pivoted gate lockingmember):
This subclass is indented under subclass 588.1. Subject matter for use with a long, narrow strip of pliant material.

588.12 For apparel:
This subclass is indented under subclass 588.1. Subject matter for use with a person's accutrements.

589.1 Slot and tab or tongue:
This subclass is indented under subclass 584.1. Subject matter including a long narrow opening for receiving a projection or flap.

590.1 Sliding or rotating element:
This subclass is indented under subclass 584.1. Subject matter including an element which can move easily over a surface while maintaining smooth, continuous contact and has the ability to turn.

591.1 Including member having distinct formations and mating member selectively interlockingtherewith:
This subclass is indented under subclass 572.1. Separable-fastener including a dissociable mating member with an interlocking face having a plurality of spaced, distinct structural formations and another opposed mating member with an interlocking face selectively interlockable with any of these formations to complete the securing operation.

(1) Note. An opposed member having an interlocking face which engages more than one of the structural formations on the interlocking face of the first member during a particular securing operation is only proper for this and the indented subclasses when the number of formations engaged in the securing operation can be less than the total number of formations available.

(2) Note. When both interlocking members have plural formations, then the one considered the formations member is always the one with the large number of formations. If both members have an equal number of formations and comply with the restrictions of (1) Note, then they are placed within this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

2, for album fasteners having means allowing adjustment of their girth, (e.g., selectively mating separable-fasteners).

16, for bale and package ties or hose clamps having means allowing adjust-

ment of their girth (e.g., selectively mating separable-fasteners).

68, for a device for effectively varying either (1) the girth encircling structure having a principal utility not associated with this class (e.g., cuff or collar tightener) or (2) the length of a strap to which the device is mounted, and having relatively movable components which are intended to either (a) transmit a repositioning force to a portion of the encircling structure or strap when the components move relative to each other, or (b) allow the repositioning of a portion of the encircling structure or strap relative to another portion thereof to which it is linked thereto by the device without the components of the device ever completely separating from each other during this repositioning operation.

163, for belt buckles.

592.1 Hook:
This subclass is indented under subclass 591.1. Subject matter which is a sharply bent catch.

592.11 Multiple catch (e.g., with pivoted gate):
This subclass is indented under subclass 592.1. Subject matter having two or more sharply bent catches.

593.1 Slot and tab or tongue:
This subclass is indented under subclass 591.1. Subject matter including a long narrow opening for receiving a projection or flap.

593.11 Having teeth or serrations (e.g., sliding with respect to each other):
This subclass is indented under subclass 593.1. Subject matter including one or more elements having notched or toothlike projections.

594.1 Resilient element (e.g., with spring):
This subclass is indented under subclass 593.1. Subject matter having elasticity such that it will tend to regain its original shape after it is deformed or compressed.

594.11 Snap with cavity:
This subclass is indented under subclass 594.1. Subject matter having a clasp which operates swiftly and smartly.

595.1 Pin, post and receiver:
This subclass is indented under subclass 591.1. Subject matter including a stake or pin-like element and an accommodating receiver or hole therefore.

596.1 Notched clasp (e.g., with receiving slot):
This subclass is indented under subclass 591.1. Subject matter including a receiving element having a grooved projection.

598.1 Projection passes through cavity then moves toward noninserted portion of its member to complete interlock (e.g., snap hook):
This subclass is indented under subclass 588. Projection member in which the projection first passes completely through the cavity of the mating member and then relatively moves toward a directly cooperating noninserted portion (i.e., a portion which is not inserted into the cavity of the opposed member) of its member which is connected or linked to the projection in a manner allowing the movement therebetween needed to complete the interlocking of the projection and receiving members.

(1) Note. To be proper for this and the indented subclasses the cooperating passed-through and noninserted portions of the projection member must not have any section of the structure-to-be-secured*, a support therefor, or the cavity member located between the nearest segments of their relatively movable cooperating surfaces. Projections of this type are found in subclasses 604+ below.

598.2 Entire projection member forms loop or ring when interlocked:
This subclass is indented under subclass 598.1. Projection member wherein the projection and the directly cooperating portion of its member which is initially noninserted have curved shapes and together (a) form substantially the complete structure of the projection member and (b) in their interlocking position have a closed annular or oval shaped outer circumference which is passable through the cavity in either direction when turned.

SEE OR SEARCH THIS CLASS, SUBCLASS:

573.1, and 573.5, for a totally detachable loop or ring linking two spaced cavities.

SEE OR SEARCH CLASS:

59, Chain, Staple, and Horseshoe Making, subclasses 85+ for a detachable chain link.

152, Resilient Tires and Wheels, subclasses 241+ for devices for securing a tire chain to a wheel.

598.3 Includes slidable gate closing entrance throat:

This subclass is indented under subclass 598.2. Projection member wherein the noninserted portion of the projection member includes barrier means which (a) is movably connected to the member by two distinct, rigid* or semi-rigid* formations integral with or fixedly attached to the member and barrier means and having mutually cooperating surfaces in sliding contact with each other for restricting the movement of the barrier means to a linear or curvilinear path and (b) closes the unobstructed space needed for the projection to pass into the cavity when initially interlocking therewith.

598.4 Hook type projection member:

This subclass is indented under subclass 598.1. Projection member wherein the projection (a) is connected at one end to a generally planar noninserted shank mounted to the structure-to-be-secured * or another portion of the projection member and (b) has its opposite end (i.e., tip) free from fixed connection with any other portion of the projection member and bending (e.g., curving) generally toward either the shank or the connection of the projection member to the structure-to-be-secured*.

(1) Note. Hooks which are used as tools are excluded from Class 24 (see Lines With Other Classes of the class definition) and are found elsewhere (see search notes below).

SEE OR SEARCH CLASS:

29, Metal Working, subclass 7 for methods and apparatus for making a hook.

43, Fishing, Trapping, and Vermin Destroying, subclasses 43.16+ for a fishing hook.

54, Harness for Working Animal, subclasses 46.1, 46.2 and 62 for a hook shaped device used in combination with harness.

114, Ships, subclasses 377+ for a connector (e.g., hook) adopted to connect a life craft to life craft handling apparatus.

152, Resilient Tires and Wheels, subclasses 241+ for chain securing device in combination with, or specially adapted for use with, an annular tire chain.

182, Fire Escape, Ladder, or Scaffold, subclass 4 for a snap hook used with window cleaner harness.

223, Apparel Apparatus, subclasses 85+ for a garment hanger (e.g., coat hanger) provided with a support hook.

248, Supports, subclasses 211, 213, 215, 225.21, 227.1, 290.1, 301, 303, 304+, and 339+ for a bracket having either a hook type article support or a support hook for the bracket.

278, Land Vehicles: Animal Draft Appliances, subclasses 51, 111+, and 127+ for a hook shaped device in combination with a draft appliance.

292, Closure Fasteners, subclasses 95+ for a hooked end bolt.

294, Handling: Hand and Hoist-Line Implements, subclasses 82.17+ for a hoistline or grab hook having a throat closure (see (1) Note above)

623, Prosthesis (i.e., Artificial Body Members), Part Thereof, or Aids and Accessories Therefor, subclasses 57+ for a hook used to replace a hand.

D11, Jewelry, Symbolic Insignia, and Ornaments, subclasses 208+ for a hook and eye type fastener.

598.5 Plural hooks entering opposite sides of same cavity:

This subclass is indented under subclass 598.4. Projection member having two bent projections (i.e., hooks) which enter different sides of the same cavity and pass completely therethrough.

(1) Note. The noninserted portion of the projection member with which each bent

projection cooperates may be the shank of the other bent projection.

SEE OR SEARCH CLASS:
294, Handling: Hand and Hoist-Line Implements, subclass 82.18 for overlapping, connected hooks which form a loop when closed.

598.6 Hooks formed solely from wire:
This subclass is indented under subclass 598.5. Projection member in which both bent projections are completely constructed from a rigid* or semirigid* filament.

598.7 Noninserted portion of projection member includes movably connected gate for closing access throat:
This subclass is indented under subclass 598.4. Projection member wherein the noninserted portion of the projection member includes barrier means movably connected to the shank which directly closes or reduces (i.e., without the use of intervening projection structure) the unobstructed space between the tip of the projection and the shank when located in one of its positions to less than the amount of space needed to pass the projection into or out of the cavity.

SEE OR SEARCH CLASS:
294, Handling: Hand and Hoist-Line Implements, subclasses 82.17+ for a hoistline or grab hook having a device for closing the entrance throat of the hook.

598.8 Threaded gate:
This subclass is indented under subclass 598.7. Projection member wherein the barrier means includes, or is rigidly affixed to, a screw-threaded formation which cooperates with a similar formation on the shank in a manner allowing the barrier when rotated to move between its obstructing and unobstructing positions.

598.9 Revolvably mounted disc shaped gate:
This subclass is indented under subclass 598.7. Projection member wherein the barrier means includes a thin, flat plate having a generally circular perimeter and connected to the shank in a manner allowing it to rotate about its central axis.

599.1 Pivotally connected gate:
This subclass is indented under subclass 598.7. Projection member wherein the barrier means is connected to the shank in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on the shank and (b) maintain movement between the barrier means and shank at their contact point or region.

SEE OR SEARCH CLASS:
294, Handling: Hand and Hoist-Line Implements, subclasses 82.19+ for a hoistline or grab hook having a pivoted device for closing the entrance throat of the hook.

599.2 Gate swings transversely to plane of hook:
This subclass is indented under subclass 599.1. Barrier means swinging in an arcuate path which is perpendicular to the plane of the projection.

599.3 Gate also slides relative to pivot:
This subclass is indented under subclass 599.1. Barrier means additionally having guiding structure which allows the connection of the barrier to move in a smooth linear manner relative to the contacted connection point or region about which it swings.

599.4 Having means biasing gate about pivot:
This subclass is indented under subclass 599.1. Barrier means which is swung about its connection and held either in or out of its obstructing positions by a biasing force stored in either (a) a separate spring or (b) an integral, resilient* extension of the barrier means which does not itself act as a barrier.

599.5 And position locking-means for gate:
This subclass is indented under subclass 599.4. Barrier means also having locking-means* for retaining the barrier means at a particular location.

(1) Note. A component which (a) prevents the separation of the dissociable members and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass

and is placed elsewhere as an interlocking component.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclasses 82.2 and 82.21 for a hoistline or grab hook having a pivoted device for closing the entrance throat of the hook and a latch for holding it in its closed position.

599.6 Includes distinct biasing spring:
This subclass is indented under subclass 599.4. Barrier means wherein a separate spring stores the biasing force.

599.7 Coil type spring:
This subclass is indented under subclass 599.6. Barrier means wherein the separate spring has a segment bent or molded into the shape of at least two partial, similar adjacent loops which curve around a common central axis and store the biasing force of the spring.

599.8 Coiled about pivotal axis of gate:
This subclass is indented under subclass 599.7. Barrier means wherein the loops of the separate spring encircle the connection point or region about which the barrier swings.

599.9 Having position locking-means for gate:
This subclass is indented under subclass 599.1. Barrier means having locking-mean* for retaining the barrier at a particular location.

(1) Note. A conponent which (a) prevents the separation of the dissociable member and (b) is located on one of the mating member and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass and is placed elsewhere as an interlocking component.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclasses 82.2 and 82.21 for a hoistline or grab hook having a pivoted device for closing the entrance throat of the hook and a latch for holding it in its closed positons.

600.1 Locking-means pivotally connected:
This subclass is indented under subclass 599.9. Barrier means wherein the locking-means* for the barrier is connected to another portion of the projection member in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region and (b) maintain movement between the locking-means* and the other portion of the projection at their contact point or region.

600.2 Locking-means slidably mounted:
This subclass is indented under subclass 599.9. Barrier means wherein the locking-means* for the barrier is connected to another portion of the projection member by two distinct, rigid* or semirigid* formations which are integral with or fixedly attached to the locking-means* and other portion of the projection member respectively and have mutually cooperating surfaces both (a) in sliding contact with each other and (b) restricting the movement of the locking-means* to substantially a primary direction along a linear or curvilinear path.

600.3 Gate closes when structure-to-be-secured is tensioned:
This subclass is indented under subclass 599.1. Barrier means which is swung about the barrier means' connection to the shank and held in its obstructing position by a force applied to the structure-to-be-secured* at a point remote from the projection member and transmitted thereto through the portion of the projecting member mounting the member to the structure-to-be-secured*.

600.4 Track or way guided gate:
This subclass is indented under subclass 598.7. Projection member wherein the barrier means is connected to the shank by two distinct, rigid* or semirigid* formations which are integral with or fixedly attached to the shank and barrier means respectively and have mutually cooperating surfaces both (a) in sliding or rolling contact with each other and (b) restricting the movement of the barrier means to a substantially single, primary direction along a linear or curvilinear path.

SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclass 82.23 for a hoistline or grab hook having a slidable device for closing the entrance throat of the hook.

600.5 Having means biasing gate:
This subclass is indented under subclass 600.4. Barrier means which is slid or rolled along its path and held in its obstructing or nonobstructing position by a biasing force store in either (a) a separate spring or (b) an integral, resilient* extension of the barrier means which does not itself act as a barrier.

600.6 Guide of gate encircles shank:
This subclass is indented under subclass 600.5. Barrier means wherein the rigid* or semi-rigid*, movement restricting formation of the barrier means forms a closed ring around the shank of the projection member.

600.7 Cavity in shank forms track or way:
This subclass is indented under subclass 600.5. Barrier means wherein the rigid* or semi-rigid*, movement restricting formation of the shank includes a hole therein along which the movement restricting formation of the barriers means slides or rolls when the barrier means moves between it obstructing and nonobstructing positions.

600.8 With position locking-means for gate:
This subclass is indented under subclass 600.7. Barrier means provided with locking-means* for retaining the barrier means at a particular location.

(1) Note. A component which (a) prevents the separation of the dissociable members and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass and is placed elsewhere as an interlocking component.

600.9 Resilient, self-biased gate:
This subclass is indented under subclass 598.7. Projection member wherein the barrier means is integral with or fixedly attached to the shank and has a surface segment both (a) movable relative to the shank and (b) biased either into or out of its obstructing position by its own resiliency.

601.1 With position locking-means for gate:
This subclass is indented under subclass 600.9. Barrier means provided with locking-means* for retaining the barrier means at a particular location.

(1) Note. A component which (a) prevents the separation of the dissociable members and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass and is placed elsewhere as an interlocking component.

601.2 Gate and hook formed from plastic:
This subclass is indented under subclass 600.9. Projection member in which the shank, projection, and barrier means are all completely constructed from a plastic compound (e.g., synthetic resin, polymer).

601.3 Gate and hook formed solely from wire:
This subclass is indented under subclass 600.9. Projection member in which the projection and the barrier means are both completely constructed from bent, resilient* filament.

601.4 Gate and hook formed from single piece of sheet metal:
This subclass is indented under subclass 600.9. Projection member in which the shank, projection, and barrier means are all completely constructed from one thin piece of metal which has been cut or bent in such a manner that the barrier is biased by its own resiliency.

601.5 Projection pivotally attached to shank or mounting structure:
This subclass is indented under subclass 598.4. Projection member wherein the projection is movably connected to either (1) the generally planar noninserted shank or (2) another noninserted portion of the projection member mounting the projection and shank to the structure-to-be-secured* in a manner allowing the projection to both (a) swing in an arcuate path about a constantly contacted connection point or region

located on the shank or mounting portion after insertion into the cavity to interlock therewith and (b) maintain movement between the projection and shank or mounting portion at their contact point or region.

601.6 Projection slidably mounted to shank or mounting structure:
This subclass is indented under subclass 598.4. Projection member wherein the projection is movably connected for allowing interlocking with the cavity after insertion to either (1) the generally planar noninserted shank or (2) another noninserted portion of the projection member mounting the projection shank to the structure-to-be-secured* by two distinct, rigid* or semirigid* formations which are integral with or fixedly attached to the projection and shank or the shank and mounting portion respectively and have mutually cooperating surfaces both (a) in sliding contact with each other and (b) restricting the movement of the projection or projection and shank to substantially a primary direction along a linear or curvilinear path.

601.7 Projection self-biased towards shank or mounting structure:
This subclass is indented under subclass 598.4. Projection member in which the projection is integral with or rigidly affixed to the shank and is biased towards either the shank, structure-to-be-secured*, or projection member connecting structure by its own resiliency to allow interlocking with the cavity after its insertion therethrough.

601.8 And formed solely from wire:
This subclass is indented under subclass 601.7. Projection member having the projection and shank both completely constructed from at least one elongated, bent filament.

601.9 Cooperating with relatively stationary wire gate:
This subclass is indented under subclass 601.8. Projection member wherein the noninserted portion of the projection member includes a distinct formation (e.g., gate) constructed from the filament and nonmovably connected to the shank which cooperates with the relatively movable biased projection and acts as a barrier to close or reduce the unobstructed space between the tip of the projection and the shank when the projection is located in one of its positions to less than the amount of space needed to pass the projection into or out the cavity.

602 Interlocking portion actuated or released responsive to preselected condition (e.g., heat, pressure):
This subclass is indented under subclass 588. Separable-fastener* having the interlocking structure of one of the mating members shifted into or out of interlocking engagement when a specific, preselected condition (e.g., heat, pressure) for which the fastener is designed to be sensitive beyond a specific level is encountered in the fastener's working environment.

SEE OR SEARCH THIS CLASS, SUBCLASS:
606+, for an operator* for causing movement between projection components or surfaces.
633+, for an operator* for causing movement between components or surfaces of the receiving member.

603 Having electric or fluid powered, actuation or release, of interlock:
This subclass is indented under subclass 588. Separable-fastener* having interlocking structure shifted into or out of interlocking engagement by either (a) direct electrically generated or fluid force thereon, or (b) electric or fluid powered means pushing thereagainst during the association or separation of the receiving and projection members.

SEE OR SEARCH THIS CLASS, SUBCLASS:
303, for magnetic fasteners which may utilize electric power to create their magnetic field.
606+, for an operator* for causing movement between projection components or surfaces.
633+, for an operator* for causing movement between components or surfaces of the receiving member.

604 Projection having movable connection between components thereof or variable configuration:
This subclass is indented under subclass 588. Projection member wherein the projection inserted in or through the cavity includes either (a) two distinct components connected together in a manner allowing them at their connection point or region to move relative to each other for facilitating engagement and interlock with a portion of the receiving member during the securement operation, or (b) a surface segment which is integral with or rigidly affixed to the surface forming the remainder of the projection and moves relative to this remaining surface at a point spaced therefrom to vary the shape of the projection for facilitating engagement and interlock with a portion of the receiving member during the securement operation.

(1) Note. The portion of the projection member which rigidly affixes the movable surfaces of the projection to each other or movably connects the components of the projection with each other is not required to be inserted in or through the cavity.

605 With additional, similar projection for engaging different cavity:
This subclass is indented under subclass 604. Separable-fastener* provided with an additional projection having a similar shape and operation to the first projection for engaging another cavity.

SEE OR SEARCH THIS CLASS, SUBCLASS:
589, for a separable-fastener* having divergent interlock means distinct from required cavity or projection of its member.
630+, for a separable-fastener* having both a cavity with a movable component or surface and an additional cavity, each of which are intended to engage a different projection when interlocked.
697, for plural distinct projections with no relatively movable components or surfaces.

606 And operator therefor:
This subclass is indented under subclass 604. Projection member having an operator* for causing the movement between the two projection components or surface segments during the securing operation.

(1) Note. A component which both (a) prevents the separation of the dissociable mating members, and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper operator* for this subclass and its indented subclasses and is placed as a relatively movable interlocking component elsewhere.

SEE OR SEARCH THIS CLASS, SUBCLASS:
602, for a separable-fastener* having interlocking structure actuated or released responsive to preselected condition.
603, for a separable-fastener* having interlocking structure actuated or released by electric or fluid power.
633+, for an operator* for causing movement between components or surfaces of the receiving member.

607 Including camming or wedging element on projection member:
This subclass is indented under subclass 606. Operator* including either a rigid* or semi-rigid* rotatable camming or shiftable wedging element mounted on the projection member and having a contact surface which slides against, for causing the movement of, a cooperating contact surface on or attached to either the interlock component or a surface segment thereof when a rotating or shifting force is applied to the camming or wedging element, and wherein the relative orientation or contour of one of the contacting surfaces causes the movement of the interlocking component or surface segment to be in a direction other than (i.e., not identical to) that of the shifting or rotating movement of the element.

608 Pivotally attached element:
This subclass is indented under subclass 607. Operator* in which the element is pivotally attached to the projection member.

609 Including pivotal connection between projection components:
This subclass is indented under subclass 604. Projection having one of its interlocking components connected either to its other interlocking component or another portion of the projection member linking it thereto in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on either the other component or the intermediate linking portion, and (b) maintain the required relative movement between the surfaces of the components or the component and linking portion at the contact point or region.

(1) Note. An interlocking component which swings about a nonfixed region of and maintains constant contact with the other component or linking portion is included herein.

SEE OR SEARCH THIS CLASS, SUBCLASS:
643+, for a receiving member having a pivotal connection between two of its components which allows relative movement between two of its interlocking components.
684, for a pivotal, mounting connection allowing bodily movement of the projection or cavity towards its interlocking connection.

610 Component slides relative to connection:
This subclass is indented under subclass 609. Swinging interlock component which additionally moves in a sliding manner along the contact region of the other interlock component or linking portion.

(1) Note. The pivoted engaging member may slide either transversely to or along the constantly contacted region.

(2) Note. Relatively sliding portions which form part of and are supported by the swinging component are not considered proper for this subclass.

611 And spring or resilient extension biasing about pivot:
This subclass is indented under subclass 609. Swinging interlock component which is swung about its connection and held either in or out of interlock position with the interlocking structure of the receiving member by the biasing force stored in either (a) a separate spring, or (b) an integral, resilient* extension of this interlock component which does not itself interlock with the receiving member.

612 Including slidably guided connection between nonself-biasing projection components:
This subclass is indented under subclass 604. Projection having one of its interlocking components connected either to its other interlocking component or another portion of the projection member linking it thereto by two distinct, rigid or semirigid* formations which (1) are each integral with or attached to a different one of the components or this component and the linking portion and (2) have mutually cooperating surfaces both (a) in sliding contact with each other, and (b) restricting the relative movement of this interlocking component to substantially a single primary direction between its interlock and noninterlock positions, and further wherein this interlocking component is not biased along the primary direction into or out of interlocking engagement with the interlocking structure of the receiving member by its own resiliency.

613 And distinct spring biasing component:
This subclass is indented under subclass 612. Projection having a spring separate from its slidably moving interlocking component which applies a biasing force to and causes the movement of this component into or out of interlock with the receiving member.

614 Including resiliently biased projection component or surface segment:
This subclass is indented under subclass 604. Projection having at least one interlocking component or surface segment both (a) movable relative to the remaining interlocking structure of the projection and (b) biased either into or out of its normal interlocking position by its own resiliency or the resiliency of a non-

interlocking component of the projection member attached thereto or contacting therewith.

SEE OR SEARCH THIS CLASS, SUBCLASS:

662+, for a cavity member having two, relatively movable, interlocking components or segments of which at least one is resiliently biased to allow the movement.

683, for a projection or cavity having an integral resilient* segment which is utilized to mount, and allow bodily movement of, the projection or cavity.

615 Requiring manual force applied against bias to interlock or disengage:

This subclass is indented under subclass 614. Projection wherein the resiliently biased component or segment is intended to be moved either into or out of its normal interlocking position by manual force applied directly to the biased component or segment in a direction opposite to that of the biasing force.

(1) Note. To be proper for this and the indented subclasses it is required that the direction of this manual force for moving the resiliently biased component or segment be always applied at an angle to the direction of travel of the projection member during its final stage of association with the receiving member.

616 Having connected leading edge and separated trailing arms:

This subclass is indented under subclass 615. Projection having (a) the end of the biased component or segment which is initially inserted into the cavity either rigidly connected to or integral with an end of the other projection component or segment, and (b) the opposite ends of both of these projection components or segments fully detached and biased away from each other.

617 Cooperating with cavity having side walls and axially biased component capping end:

This subclass is indented under subclass 614. Separable-fastener* wherein the biased component or segment of the projection interlocks with a cavity member having (1) an access opening, (2) side walls extending in a direction generally parallel to the central axis of this opening, and (3) a projection engaging component having at least a portion of its surface both (a) biased for movement along a path following the central axis of the access opening and side walls of the cavity and (b) preventing movement of the inserted projection along this axis beyond the location of the axially bias component in its retracted position.

618 Forming total external surface of projection:

This subclass is indented under subclass 614. Projection having its outer surface constructed entirely from either a single piece or a plurality of rigidly attached pieces of resilient* material biased into or out of normal interlock position by its or their own resiliency.

619 And encircling hollow central area:

This subclass is indented under subclass 618. Projection wherein the resilient* material forms a configuration having a central area (a) encircled by the material, and (b) at least partially devoid of any other projection member structure.

(1) Note. A cross section of the projection's encircling configuration transverse to the insertion path need not fully enclose the central void area with a continuous surface formed by the resilient* material, if there are segments of the resilient* material on all sides of the void.

620 Having separate mounting means inserted into area:

This subclass is indented under subclass 619. Projection having separate means inserted into its encircled area and engaging with the resilient* material for mounting the projection to the structure-to-be-secured* or a support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

682.1+, for means for mounting a projection or cavity portion of a separable-fastener*.

621 Plastic deformation of means or surface required for mounting:

This subclass is indented under subclass 620. Mounting means in which either the portion of mounting means inserted into the projection or a portion of the projection member engaging

therewith is permanently deformed during the mounting operation by a destructive force (i.e., a force in excess of the amount necessary for its plastic deformation to the material) which completes the connection between the two.

SEE OR SEARCH THIS CLASS, SUBCLASS:
691, for projection or cavity mounting means which is inserted into the projection or cavity and deformed.

622 Having separate mounting means encompassing cross section or projection:
This subclass is indented under subclass 619. Projection member having separate mounting means encompassing a cross-sectional area of the configuration of the projection and engaging with the material thereof to mount the projection to the structure-to-be-secured* or a support.

(1) Note. The separate mounting means of this subclass need not fully encompass the cross section of the projection with a continuous surface if there are segments of the material located on all sides thereof.

SEE OR SEARCH THIS CLASS, SUBCLASS:
692, for projection or cavity mounting means which encircles the projection or cavity and is deformed.

623 Having dome-shaped head and expansion slit along side:
This subclass is indented under subclass 619. Projection with its configuration having both (a) an arched or spherical portion which is the first portion of the configuration inserted into the receiving member during the securement operation, and (b) a gap along the side of the configuration for facilitating expansion and contraction thereof.

624 And connected surface at tip of head:
This subclass is indented under subclass 623. Projection having all sides of the arched or spherical portion connection at the leading edge of the projection (i.e., the portion of the projection initially inserted into the cavity).

625 Having inserted end formed by oppositely biased surface segments:
This subclass is indented under subclass 618. Projection having the end thereof, which is initially inserted into the cavity of the receiving member formed from a plurality of the resilient* components or surface segments unattached to each other at this end and biased by their resiliency in opposite directions.

626 Constructed from wire:
This subclass is indented under subclass 618. Projection formed from an elongated resilient* filament.

627 Having both resiliently biased and rigid components forming external surface of projection:
This subclass is indented under subclass 614. Projection having both a resilient* component and a separate rigid* component together forming the interlocking surface of the projection.

628 Projection member including noninserted spring for engaging and pushing against receiving member:
This subclass is indented under subclass 588. Projection member including a resilient* component which both (a) is distinct from the projection of its member and not insertable therewith into the cavity of the receiving member, and (b) engages and pushes against the receiving member during the securement operation to enhance the interlock between the projection and cavity.

629 Receiving member includes either movable connection between interlocking components or variable configuration cavity:
This subclass is indented under subclass 588. Receiving member which includes either (a) two distinct projection engaging or guiding components, in addition to or forming a portion or portions of the required guiding cavity, connected together in a manner allowing them at their connection point or region to move relative to each other for facilitating interlock with the projection of the mating member during the securement operation, or (b) a cavity having a projection engaging or guiding surface segment which is integral with or rigidly affixed to the surface forming the remainder of the cavity and movable relative to this remaining surface

to change the shape of the cavity's periphery for facilitating interlock with the projection of the mating member during the securement operation.

630 With additional cavity for engaging different projection:
This subclass is indented under subclass 629. Separable-fastener* having a receiving member provided with another cavity for engaging an additional projection located on either the same opposed projection member or a different projection member.

(1) Note. See (2) Note and (3) Note of subclass 588 for clarification on what structure is required to form an additional cavity.

SEE OR SEARCH THIS CLASS, SUBCLASS:
589, for a separable-fastener* having divergent interlock means distinct from required cavity or projection of its member.
605, for plural, similar shaped projections which each engage a different cavity and have relatively movable components or surfaces.
697, for plural distinct cavities with no relatively movable components or surfaces.

SEE OR SEARCH CLASS:
128, Surgery, subclass 563 for corsets and girdles having stays at their closure's edges and nonflaccid interengaging fasteners therefor.

631 Having common means actuating or releasing interlocking components or surfaces:
This subclass is indented under subclass 630. Separable-fastener* wherein each of the cavities of the receiving member is provided with a projection interlocking component or surface which is shifted into or out of interlocking engagement with its projection by a force transmitted thereto from a single means (e.g., push button) which is linked to or integral with the interlocking component or surface of both cavities.

632 And interlocking with independently associated or dissociated projection members:
This subclass is indented under subclass 631. Separable-fastener* in which the projections engaging and interlocking with the cavities are carried by different members capable of moving independently of each other during their association with or separation from the receiving member.

633 And operator therefor:
This subclass is indented under subclass 629. Receiving member including an operator* for causing the relative movement between the two projection engaging or guiding components or segments during the securing operation.

(1) Note. A component which both (a) prevents the separation of the dissociable mating members, and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper operator* for this subclass and its indented subclasses and is placed as a relatively movable interlocking component elsewhere.

SEE OR SEARCH THIS CLASS, SUBCLASS:
602, for a separable-fastener* having interlocking structure actuated or released responsive to preselected condition.
603, for a separable-fastener* having interlocking structure actuated or released by electric or fluid power.
606+, for an operator* for causing movement between projection components or segments.

634 For plural, oppositely shifting, similar interlocking components or segments:
This subclass is indented under subclass 633. Receiving member wherein the operator* causes relative movement in opposite directions between two, similarly shaped, projection engaging or guiding components or segments.

635 Operator includes camming or wedging element:
This subclass is indented under subclass 634. Operator* including either a rigid* or semi-rigid*, rotatable camming or shiftable wedging

element having a contact surface which slides against, for causing the movement of, a cooperating contact surface on or attached to either the interlock component or segment when a rotating or shifting force is applied to the camming or wedging element, and wherein the relative orientation or contour of one of the contacting surfaces causes the movement of the contacted surface of the interlocking component or segment to be in a direction other than that of the shifting or rotating movement of the element.

636 Including pivotally connected element on receiving member:
This subclass is indented under subclass 633. Operator* including an element connected to the receiving member in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region of the stationary remainder of the receiving member, and (b) maintain relative movement between the surfaces of the element and remainder of the receiving member at the contact point or region when causing the relative movement between the components or segments.

637 For shifting pivotally connected interlocking component:
This subclass is indented under subclass 636. Receiving member wherein the operator* element moves a projection engaging or guiding component which is connected to the stationary remainder of the receiving member in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region on the remainder of the receiving member, and (b) maintain relative movement between its surface and that of the remainder of the receiving member at the contact point or region when moving between its interlock and noninterlock positions.

SEE OR SEARCH THIS CLASS, SUBCLASS:
646, for a swinging, interlocking component and a relatively movable handle therefor.

638 Element and component pivot about same axis:
This subclass is indented under subclass 637. Receiving member in which both the operator* element and the projection or guiding component moved by the element swing about the same constantly contacted connection point or region located on the stationary remainder of the receiving member.

SEE OR SEARCH THIS CLASS, SUBCLASS:
646, for a swinging, interlocking component and a relatively movable handle therefor.

639 For shifting slidably connected and guided, nonself-biasing, interlocking component:
This subclass is indented under subclass 636. Receiving member wherein the operator* element moves a projection engaging or guiding component interconnected with the remaining stationary component of the receiving member by two distinct, rigid* or semirigid* formations which (1) are each integral with or fixedly attached to a different one of the components, and (2) have mutually cooperating surfaces both (a) in sliding contact with each other and (b) restricting the relative motion of the moving projection engaging or guiding component to substantively a single primary direction between its interlock and noninterlock positions, and further wherein this relatively movable component is neither biased along the primary direction into or out of interlock engagement with the interlocking structure of the projection by its own resiliency.

SEE OR SEARCH THIS CLASS, SUBCLASS:
655, for a sliding interlocking component and a relatively movable handle therefor.

640 Including slidably connected and guided element on receiving member:
This subclass is indented under subclass 633. Operator* including an element connected to a remaining stationary component of the receiving member by two distinct, rigid* formations which (1) are each integral with or fixedly attached to the element and the component, and (2) have mutually cooperating surfaces both (a)

sliding relative to each other and (b) restricting the relative motion of the element to substantively a single primary direction.

641 For shifting pivotally connected interlocking component:
This subclass is indented under subclass 640. Receiving member wherein the operator* element moves a projection engaging or guiding component which is connected to the stationary remainder of the receiving member in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region on the remainder of the receiving member, and (b) maintain relative movement between its surface and that of the remainder of the receiving member at the contact point or region when moving between its interlock and noninterlock positions.

SEE OR SEARCH THIS CLASS, SUBCLASS:
646, for a swinging interlocking component and a relatively movable handle therefor.

642 For shifting slidably connected and guided, nonself-biasing, interlocking component:
This subclass is indented under subclass 640. Receiving member wherein the operator* element moves a projection engaging or guiding component connected to a remaining stationary component of the receiving member by two distinct, rigid* or semirigid* formations which (1) are each integral with or fixedly attached to a different one of the components, and (2) have mutually cooperating surfaces both (a) in sliding contact with each other and (b) restricting the relative motion of the moving projection engaging or guiding component to substantively a single primary direction between its interlock and noninterlock positions, and further wherein this relatively movable component is neither biased along the primary direction into nor out of interlock engagement with the interlocking structure of the projection by its own resiliency.

SEE OR SEARCH THIS CLASS, SUBCLASS:
655, for a sliding interlocking component and a relatively movable handle therefor.

643 Having pivotally connected interlocking component:
This subclass is indented under subclass 629. Receiving member having its relatively movable projection engaging or guiding component connected to its other projection engaging or guiding component in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on either the other component or an intermediate linking portion of the member, and (b) maintain the required relative movement between the surfaces of the components or the component and linking portion at the contact point or region.

SEE OR SEARCH THIS CLASS, SUBCLASS:
609+, for a receiving member having a pivotal connection between two components which allows relative movement between two, distinct, inserted components of its projection.
684, for a pivotal, mounting connection allowing bodily movement of the projection or cavity towards its interlocking connection.

644 Blocking removal of formation on projection from complementary formation on side wall of cavity:
This subclass is indented under subclass 643. Receiving member wherein the swinging component moves into or out of a position which prevents the separation of a distinct interlocking formation (e.g., aperture) located on the projection member from a distinct stationary interlocking formation located on the axially extending walls of the cavity having a shape complementary to the formation of the projection.

(1) Note. The formation within the cavity must be more than a simple extension of and be spaced from the initial structure defining the access opening.

645 And position locking-means therefor:
This subclass is indented under subclass 643. Receiving member having locking-means* for retaining the swinging component at a particular location.

(1) Note. A component which (a) prevents the separation of the dissociable members and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass and is places elsewhere as an interlocking component.

646 And relatively movable handle therefor:
This subclass is indented under subclass 643. Receiving member having an element connected to it which is both (1) distinct from the swinging component and neither guides nor interlocks with the projection, and (2) connected to its member in a manner which allows it to (a) transmit a manual input force applied directly upon it to the swinging component when moving therewith and (b) move relative to the swinging component only when an input force applied to the element or component is not transmitted therebetween.

SEE OR SEARCH THIS CLASS, SUBCLASS:
638, for a swinging interlocking component and a manually engaged pivoting element which requires relative movement between the component and element during the transmittal of an input force therebetween.

647 Requiring manual force thereon to interlock or disengage:
This subclass is indented under subclass 643. Swinging component in which manual force is intended to be applied directly on, and in the same direction as the motion of, this component when swinging it relative to the other component and moving it either to or from its interlocking position with the projection.

648 Plural, oppositely shifting, similar interlocking component:
This subclass is indented under subclass 647. Receiving member having two, separate, similarly shaped, swinging components which travel in opposite directions when moving between their interlock and noninterlock positions.

649 Having aperture therein alignable with parallel access opening:
This subclass is indented under subclass 647. Swinging component having an aperture (e.g., closed hole, channel) formed in it which is (a) located in a plane parallel to the one in which the access opening of the cavity is located, and (b) travels in this plane between a position in which one portion thereof is aligned with the central axis of the access opening when the projection is interlocked and another position in which this interlocking portion of the aperture is in a location which allows the projection to freely pass through the access opening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
597, for a receiving member having a component which is mounted to rotate about the central axis of the access opening of the cavity and includes an interlocking aperture located therein or therethrough.

650 Having interlocking portion thereof housed continuously within cavity:
This subclass is indented under subclass 647. Swinging component having its entire projection engaging portion always enclosed within a projection guiding cavity formed by the distinct component to which it is connected.

651 Having cavity with side walls and axially biased component capping end:
This subclass is indented under subclass 629. Receiving member having (1) a cavity component or surface segment with an access opening and side walls extending in a direction generally parallel to the central axis of this opening, and (2) a projection engaging component or segment, with at least a portion of its surface both (a) biased for movement along a path following the central axis of the opening of the cavity and (b) preventing movement of the inserted projection along this axis beyond its location in its retracted position.

652 Having slidably connected, nonself-biasing interlocking component:
This subclass is indented under subclass 629. Receiving member having its relatively movable engaging or guiding component connected to its other engaging or guiding component by

two distinct, rigid* or semirigid* formations which (1) are each integral with or fixedly attached to a different one of the components, and (2) have mutually cooperating surfaces both (a) sliding relative to each other and (b) restricting the relative motion of the moving component to substantively a single primary direction between its interlock and noninterlock positions, and further wherein the relatively movable component is not biased along the primary direction into or out of interlocking engagement with interlocking structure of the projection by it's own resiliency.

653 Blocking removal of formation on projection from complementary formation on side wall of cavity:
This subclass is indented under subclass 652. Receiving member in which the relatively movable sliding component moves into or out of a position which prevents the separation of a distinct interlocking formation (e.g., aperture) located on the projection member and a distinct stationary interlocking formation located on the axially extending walls of the cavity having a shape complementary to the formation of the projection.

(1) Note. The formation within the cavity must be more than a simple extension of the access opening and axially spaced therefrom.

654 And position locking-means therefor:
This subclass is indented under subclass 652. Receiving member having locking-means* for retaining the sliding component at a particular location.

(1) Note. A component which (a) prevents the separation of the dissociable members and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass and is placed elsewhere as an interlocking component.

655 And relatively movable handle therefor:
This subclass is indented under subclass 652. Receiving member having an element connected to it which is both (1) distinct from the sliding component and neither guides not interlocks with the projection, and (2) connected to its member in a manner which allows it to (a) transmit a manual input force applied directly upon it to the sliding component when moving therewith and (b) move relative to the sliding component only when an input force applied to the element or component is not transmitted therebetween.

SEE OR SEARCH THIS CLASS, SUBCLASS:
642, for a sliding interlocking component and a manually engaged sliding element which requires relative movement between the component and element during transmittal of an input force therebetween.

656 Requiring manual force thereon to interlock or disengage:
This subclass is indented under subclass 652. Sliding component in which manual force is intended to be applied directly on and in the same direction as the motion of this component when sliding it relative to the other component and moving it either to or from its interlocking position with the projection.

657 Plural, oppositely shifting, similar interlocking components:
This subclass is indented under subclass 656. Receiving member having two separate, similarly shaped, sliding components which travel in opposite directions to each other when moving between their interlock and noninterlock positions.

658 Having closed aperture therethrough alignable with parallel access opening:
This subclass is indented under subclass 656. Sliding component having an aperture with a continuous circumference formed through it which is in a parallel plane to and has (a) one portion aligned with the central axis of the access opening of the cavity in the interlocking position of the movable sliding component and (b) another portion of the aperture aligned with the central axis of noninterlocking position of the movable sliding component.

659 Having flaccid component defining access opening of cavity:
This subclass is indented under subclass 629. Receiving member having at least a segment of the access opening of the cavity constructed from a flaccid* material to allow the perimeter of the opening to change either its size or shape during the interlocking operation.

(1) Note. The flaccid* segment of the access opening of the cavity in this and the indented subclasses may be formed by a flaccid* piece of the structure-to-be-secured* (e.g., a button hole).

(2) Note. The flaccid* material of this and the indented subclasses may also be elastic in nature (e.g., a button loop made of thin rubber material).

SEE OR SEARCH CLASS:
112, Sewing, subclass 431 for a web or sheet having an aperture (e.g., buttonhole) around which a filamentary material or strandlike tape is sewn; subclass 437 for a sewn web or sheet having apertured or openwork (e.g., buttonhole) therein; and subclasses 65+ for buttonhole forming machines.

660 Component formed solely by flaccid* cord:
This subclass is indented under subclass 659. Access opening wherein the flaccid* segment is constructed from a long slender element which is the only material defining this segment of the perimeter.

661 With nonflaccid component:
This subclass is indented under subclass 659. Access opening also having a segment of its projection perimeter constructed from nonflaccid material.

662 Having resiliently biased interlocking component or segment:
This subclass is indented under subclass 629. Receiving member having one of its interlocking components or segments both (a) movable relative to the remaining interlocking structure of the receiving member, and (b) biased either into or out of its normal interlocking position by its own resiliency or the resiliency of a non-interlocking component of the receiving member attached thereto or contacting therewith.

SEE OR SEARCH THIS CLASS, SUBCLASS:
614+, for a projection having two, relatively movable, inserted components or segments of which at least one is resiliently biased to allow their movement.
683, for a projection or cavity having an integral resilient* segment which is utilized to mount, and allow bodily movement of, the projection or cavity.

663 Cavity or projection rotates about axis of cavity to dissociate:
This subclass is indented under subclass 662. Dissociable mating members wherein it is necessary to rotate either a portion of the projection or receiving member about the central axis of the access opening of the cavity to dissociate them from each other.

SEE OR SEARCH THIS CLASS, SUBCLASS:
590+, for dissociable mating members which must be rotated relative to each other about the axis of the cavity access opening to complete interlock.

664 Requiring manual force applied against bias to interlock or disengage:
This subclass is indented under subclass 662. Receiving member wherein the resiliently biased component or segment is intended to be moved either into or out of its normal interlocking position by manual force applied directly to the biased component or segment in a direction opposite to that of the biasing force on this component or segment.

(1) Note. To be proper for this and the indented subclasses it is required that the direction of this manual force for moving the resiliently biased component or component segment be always applied at an angle to the direction of travel of the projection member during its final stage of association with the receiving member.

665 And partially blocking separate, nonresilient access opening of cavity:
This subclass is indented under subclass 664. Receiving member wherein the resiliently biased component or segment extends across or into a portion of the access path of the projection to (a) reduce the width of this path beyond, and (b) hinder its removal or entrance of the projection through a separate (i.e., nonintegral), nonresilient component of the receiving member which forms the access opening of the cavity.

666 And closed elongated access opening for guiding transverse projection travel after insertion:
This subclass is indented under subclass 662. Receiving member having a component or segment with connected walls which (a) fully encircle the access path of the projection into the cavity, and (b) have a configuration with one dimension of greater length than the corresponding dimension of the projection in its insertion attitude to allow the projection after insertion therethrough to abruptly change its direction of movement and bodily travel a significant distance along the encircling walls in a path which is transverse to the access path.

(1) Note. The distance traveled by the projection during its transverse movement should be at least half of the projection's length in its corresponding dimension to be considered significant.

(2) Note. A section of the fully encircling walls may be formed by a portion of the structure-to-be-secured* connected to two other wall sections of the component or segment.

(3) Note. If no abrupt change in travel direction is necessary by the projection after its insertion through the access opening, then it is not proper for this and the indented subclasses.

(4) Note. A minor expansion gap in the access opening encircling wall which does not allow any of the projection member's structure to pass therethrough is still considered to be “fully encircling” and proper for this and the indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:
701, for similar art not having a resiliently biased interlocking component or segment.

667 Nonresilient walls define opening:
This subclass is indented under subclass 666. Receiving member wherein the access path encircling walls of the component or segment are constructed in a manner which prevents them from expanding in any direction transverse to that of the projection access path.

668 Formed from wire:
This subclass is indented under subclass 666. Receiving member wherein the access path encircling walls are constructed at least in part from a rigid* or semirigid* filament.

(1) Note. A portion of one of the walls of this subclass may be considered the resiliently biased component or segment if it is resiliently constructed and this resiliency is necessary for interlock.

669 And access opening with gapped perimeter for allowing movement of noninserted projection support therepast:
This subclass is indented under subclass 662. Receiving member also having its cavity defined by a component or segment which only partially encircles the access path of the inserted portion of the projection at the point where its movement is initially restricted by the cavity and wherein the vacant space in the component or segment at this point is intended to allow a noninserted portion of the projection member supporting the projection (i.e., the portion linking or mounting the inserted projection to the structure-to-be-secured* or a supporting structure therefor) to travel with the projection to a location beyond its entry point into the cavity.

(1) Note. See (2) Note of subclass 588.

SEE OR SEARCH THIS CLASS, SUBCLASS:
702, for similar art not having a resiliently biased component or segment.

670 Cavity constructed solely from wire:
This subclass is indented under subclass 669. Receiving member wherein the component or segment forming the boundaries of the cavity is constructed solely from a rigid* or semirigid* filament.

671 Partially blocking separate, nonresilient, access opening of cavity:
This subclass is indented under subclass 662. Receiving member wherein the resiliently biased component extends across or into a portion of the travel path of the projection to (a) reduce the width of this path, and (b) hinder the removal or entrance of the projection through a separate (i.e., nonintegral) nonresilient component of the receiving member which forms the access opening of the cavity.

(1) Note. If the resilient* element is located at one side of the access opening, it is proper for this and the indented subclasses only if structure of the nonresilient component is also found on this side and radially spaced a further distance from the central axis of the access opening.

672 And bodily shifted into or out or interlock location by manual force thereon:
This subclass is indented under subclass 671. Resiliently biased component or segment which is intended to be shifted in its entirety relative to the nonresilient access opening when moving either to or from its interlocking position with the projection by manual force applied directly to an integral force or fixedly attached portion thereof.

(1) Note. The resiliently biased component or segment of this subclass is either forced against a portion of the projection or a relatively stationary portion of the receiving member by the manual force and coacts therewith to exceed the biasing force acting on it. If the manual force is applied directly to the component or segment in a direction opposite to the biasing force thereon, then it is proper for subclass 665 and not this subclass.

673 Formed from wire:
This subclass is indented under subclass 671. Receiving member wherein the resiliently biased component or segment is constructed from a semirigid* filament.

674 Having curved or bent engaging section conforming to contour of projection:
This subclass is indented under subclass 673. Filament having a section thereof curved or bent in a manner allowing this section to engage and generally follow a similarly shaped curved or bent portion of a cross-sectional surface of the projection which is perpendicular to the central axis of the access opening when the projection is in its interlock position.

675 Similar, distinct sections:
This subclass is indented under subclass 674. Filament with two curved or bent projection engaging sections having a similar shape to and distinct from (i.e., are noncontinuous curves or bends) each other.

676 Having distinct sections engaging projection at spaced points:
This subclass is indented under subclass 673. Filaments having two or more distinct projection engaging sections located along its length for engaging different areas of the cross-sectional surface of the projection spaced from each other by nonengaged portions of this surface.

677 Including separate, nonprojection-engaging spring for biasing:
This subclass is indented under subclass 662. Receiving member including a spring which is (a) separate from the projection engaging structure of the receiving member, and (b) applies at least a portion of the required biasing force to the movable interlocking component or segment.

678 Biased component or segment entirely formed from wire:
This subclass is indented under subclass 662. Receiving member in which all the biased interlocking structure of the receiving member is constructed solely from a bent resilient* filament.

679 Having portion of cavity deformed during mounting:
This subclass is indented under subclass 662. Receiving member wherein an integral of fixedly attached projection receiving cavity has its initial configuration altered during the operation mounting the receiving member to the structure-to-be-secured* by a deforming force transmitted to the portion in excess of the amount of force necessary for plastic deformation of the material from which the portion is constructed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
688+, for deformable mounting means formed from a fixedly attached to projection or cavity member.

680 And cooperating with separate mounting component:
This subclass is indented under subclass 679. Receiving member in which a separate component of the receiving member cooperates with the altered portion of the cavity to enhance the mounting of the receiving member to the structure-to-be-secured*.

SEE OR SEARCH THIS CLASS, SUBCLASS:
689, for a cavity or projection member having a deformable portion cooperating with a detached component during the mounting operation.

681 Having axially extending expansion slit along side of cavity:
This subclass is indented under subclass 662. Receiving member wherein the component or segment forming the projection receiving cavity has a gap or slit located in one of its walls extending in the same direction as the central axis of the access opening to allow the cavity to either resiliently expand or contract during the interlocking operation.

(1) Note. To be proper for this subclass the length of the gap or slit in the direction of the central axis must be of a greater magnitude than the thickness of the material from which the cavity is constructed.

682.1 Means for mounting projection or cavity portion:
This subclass is indented under subclass 588. Separable-fastener* wherein means are provided for securing either a projection or cavity portion of the dissociable mating members to the surface of either the structure-to-be-secured* or a support therefor.

(1) Note. For a mounting means to be proper for this subclass or indented subclasses, it must retain the projection or cavity member at a specific location on, or in the region of the surface to which it is attached (i.e., it does not allow unrestricted movement along or removal from the mounting surface).

(2) Note. Separable-fastener* mounted solely by a simple encircling loop are classified elsewhere based on another feature of the separable-fastener*.

(3) Note. Separable fasteners* mounted by another fastener of this class are found under "Combined Diverse Multipart Fasteners" or subclasses 573+ (see subclass 573 search note to this class, subclasses 305+ and 379.1 for the line between these areas).

SEE OR SEARCH THIS CLASS, SUBCLASS:
90.1+, for buttons with means to attach them to the structure-to-be-secured*.
265, for devices utilized to attach an unclaimed separable-fastener* to the end of a strap.
413+, for means for mounting individual elements of a zippers interlocking surface.
444, for means for attaching a mounting surface for numerous filaments (e.g., hook and loop type fastener) to the structure-to-be-secured* or a support therefor.

683 Allows bodily movement facilitating interlock:
This subclass is indented under subclass 682.1. Mounting means constructed in a manner which allows the projection or cavity portion of the dissociable member to move as a complete

unit relative to the surface to which it is mounted to facilitate the interlocking operation.

(1) Note. Mounting means allowing relative movement between interlocking components or component segments of either the projection or cavity portion are excluded from this subclass and its indented subclasses and are found in subclasses 604+ and 629+.

SEE OR SEARCH THIS CLASS, SUBCLASS:

586, for a separable-fastener* having selective interlocking position between opposed faces and mounting means for one of its members allowing interlock facilitating repositioning of a face.

614+, for a projection having two, relatively movable, inserted components or segments, one of which is resiliently biased to allow the movement.

662+, for a cavity member having two, relatively movable, interlocking components or segments, one of which is resiliently biased to allow the movement.

684 About pivotal connection:

This subclass is indented under subclass 683. Mounting means which allows (a) the projection or cavity portion of the dissociable member to swing in an arcuate path about a constantly contacted connection point or region located on the surface to which it is mounted, and (b) maintain relative movement at the contact point or region between the contacting portions of the mounting means and the mounting surface.

(1) Note. A dissociable member having a projection or cavity portion which swings about a nonfixed point within a fixed region of the mounting surface is included herein if it maintains the required contact and relative movement at the connection.

SEE OR SEARCH THIS CLASS, SUBCLASS:

609+, for a projection member having a pivotal connection between two components which allows relative movement between two, distinct, inserted components of its projection.

643+, for a receiving member having a pivotal connection between two of its components which allows relative movement between two of its interlocking components.

685 Includes resilient component separate from portion:

This subclass is indented under subclass 683. Mounting means including a resilient component which is distinct and separate from (i.e., nonintegral) the projection or cavity portion of the dissociable member and allows the portion's movement relative to the mounting surface.

686 Allows relocation of portion:

This subclass is indented under subclass 682.1. Mounting means constructed in a manner which allows the projection or cavity portion of the dissociable member to be located in different positions.

687 Having component of means permanently deformed during mounting operation:

This subclass is indented under subclass 682.1. Mounting means having its initial configuration altered during the operation of mounting the dissociable member to the structure-to-be-secured* by a deforming force in excess of the amount of force necessary for plastic deformation of the material from which this component of the means is constructed.

SEE OR SEARCH THIS CLASS, SUBCLASS:

679, for receiving members having a resiliently biased component or segment and a deformed mounting portion.

703, for a fastener destructively deformed during fastening.

688 And formed from or fixedly attached to projection or cavity portion:

This subclass is indented under subclass 687. Deformed component also integral with or permanently secured to the projection or cavity portion of the dissociable member before the beginning of the mounting operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

36, for a one-piece belt fastener mounted to the belt by a deformed prong.

414, for deformable jaws for mounting* individual elements of zipper's interlocking surface.

679, for resilient* cavity which is deformed during its mounting operation.

689 Cooperates with detached component of means:

This subclass is indented under subclass 688. Deformed component which cooperates after deformation with a component of the mounting means previously separate and detached therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:

680, for a deformable, resilient* cavity which cooperates with a separate component during the mounting operation.

690 Having shape facilitating impaling of mounting surface:

This subclass is indented under subclass 688. Deformed component having a configuration specifically designed for piercing through or into the material of the mounting surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

689, and 696, for a mounting component which has a shape facilitating impaling of the mounting surface.

691 And inserted into or through cavity or projection:

This subclass is indented under subclass 687. Deformed component which is also inserted into or through either the cavity or projection of the dissociable member during the mounting operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

621, for a resilient* projection having deformable mounting means inserted into a hollow central area of the projection.

692 And encircling cavity or projection:

This subclass is indented under subclass 687. Deformed component which also encircles either the base of the cavity or projection of the dissociable member during the mounting operation.

(1) Note. The deformed component of this subclass need not fully encircle the base of the cavity or projection with a continuous surface as long as there are segments of its material located on all sides thereof.

SEE OR SEARCH THIS CLASS, SUBCLASS:

622, for a resilient* projection having deformable mounting means encircling it.

693 Consisting of thermally fusible substance:

This subclass is indented under subclass 682.1. Mounting means consisting of a substance which during the mounting operation is (a) in contact with both the mounting surface and the cavity or projection portion, (b) heated to a temperature melting it from its solid state into its liquid or plastic state, and (c) cooled to a temperature which allows the substance to return to its solid state and weld the cavity or projection portion to the mounting surface.

(1) Note. The fusible substance may be separate from or part of either the mounting surface or the cavity or projection portion.

SEE OR SEARCH CLASS:

403, Joints and Connections, subclasses 270+ for a fusion bond between two rigid* or semirigid* members forming the joint therebetween.

694 Having threaded formation:

This subclass is indented under subclass 682.1. Mounting means having a projecting or concaved formation and a helical rib protruding from and located around the perimeter of this formation cooperating with a complementary formation on another portion of the means during the mounting operation.

695 Having specific structure for cooperating with stitching:
This subclass is indented under subclass 682.1. Mounting means having a component with a formation specifically designed to cooperate with a separate, flexible filament, mounting component stitched into the supporting surface.

SEE OR SEARCH CLASS:
112, Sewing, subclasses 406+ for a web or sheet having an external fastener (e.g., button) sewn thereto.

696 Having shape facilitating impaling of mounting surface:
This subclass is indented under subclass 682.1. Mounting means having configuration specifically designed for piercing through or into the material of the mounting surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:
356+, for a pin combined with another type Class 24 fastener.
706+, for pin fasteners, per se.

697.1 Plural distinct cavities or projections:
This subclass is indented under subclass 588. Separable-fastener* having either (1) a receiving member provided with plural cavities which share no common shape defining surfaces and are intended to engage different projection, (2) plural separate receiving members each provided with a cavity intended to engage a different projection, or (3) plural projections located on either a single inserted member or plural inserted members each of which is intended to engage a different cavity of either (a) a receiving member provided with plural cavities which share no common shape defining surfaces or (b) plural separate receiving members each provided with their own cavity.

SEE OR SEARCH THIS CLASS, SUBCLASS:
305+, for plural diverse type separable-fasteners having independent operation.
589, for a separable-fastener* having divergent interlock means distinct from required cavity or projection of its member.
605, for plural, similar projections which each engage a different cavity and have relatively movable components or surfaces.
630+, for a separable-fastener* having two, distinct cavities, one of which must include movable components or surfaces.
685, for plural projections or cavities biased into interlocking engagement with each other by a nonintegral resilient mounting element (e.g., strip).

SEE OR SEARCH CLASS:
403, Joints and Connections, subclass 381 for interfitted panels (i.e., structure-to-be-secured*) having interlocking structure at their joints including enlarged heads and complementary recesses.
450, Foundation Garments, subclass 139 for corsets and girdles having stays at their closure's edges and nonflaccid interengaging fasterners therefor.

697.2 Hook type:
This subclass is indented under subclass 697.1. Separable-fastener* having at least one projection which (a) is connected at one end to a generally planar noninserted shank mounted to the struc-ture-to-be-secured* or another portion of the projection member and (b) has its opposite end (i.e., tip) free from fixed connection with any other portion of the projection member and bending generally toward either the shank or the connection of the projection member to the structure-to-be-secured*

SEE OR SEARCH THIS CLASS, SUBCLASS:
370+, for plural diverse type hooks having independent operation.

698.1 Hook-shaped projection member passing through cavity:
This subclass is indented under subclass 588. Projection member having a generally planar noninserted shank connected at one end to the structure-to-be-secured* or a mounting portion of its member and at its other end to an integral or rigidly attached appendage forming the inserted projection which appendage (a) has its opposite end free from connection with any other portion of the projection member, (b) bends generally toward either the shank portion or the connection of the projection member

with the structure-to-be-secured* or support and (c) passes at least partially through a cavity.

(1) Note. Hooks which are used as tools are excluded from Class 24 (see Lines With Other Classes of the class defintion) and are found elsewhere.

SEE OR SEARCH CLASS:

29, Metal Working, subclass 7 for methods and apparatus for making a hook.

43, Fishing, Trapping, and Vermin Destroying, subclasses 43.16+ for a fishing hook.

54, Harness for Working Animal, subclasses 46 and 62 for a hook shaped device used in combination with harness.

114, Ships, subclasses 377+ for a connector (e.g., hook) adapted to connect a life craft to life craft handling apparatus and subclasses 301+ for a fluke type anchor.

152, Resilient Tires and Wheels, subclasses 241+ for a chain securing device in combination with, or specially adapted for use with, an annular for use with, an annular tire chain.

248, Supports, subclasses 211, 213, 215, 225.21, 227.2, 290.1, 301, 303, 304+, and 339+ for a bracket having either a hook type article support or a support hook for the bracket.

278, Land Vehicles: Animal Draft Appliances, subclasses 51, 111+, and 127+ for a hook shaped device in combination with a draft appliance.

292, Closure Fasteners, subclasses 95+ for a hooked end bolt.

294, Handling: Hand and Hoist-Line Implements, subclass 82.1 for a hoist-line or grab hook; also subclass 26 (see (1) Note above).

623, Prosthesis, (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Thereof, subclasses 57+ for a hook used to replace a hand.

D11, Jewelry, Symbolic Insignia, and Ornaments, subclasses 208+ for a hook and eye type fastener.

698.2 Formed from single piece of sheet metal:
This subclass is indented under subclass 698.1. Projection member completely constructed from one thin piece of metal which has been or cut to make the shank and inserted projection.

698.3 Formed solely from wire:
This subclass is indented under subclass 698.1. Projection member completely constructed from one or more rigid* or semirigid* filaments.

SEE OR SEARCH THIS CLASS, SUBCLASS:

601.3, and 601.8+, for a hook and gate formed solely from wire and having a relatively movable portion.

700 Cavity having specific shape:
This subclass is indented under subclass 588. Receiving member where in the boundary of its cavity is defined by a segment of the member's structure having a detailed configuration or contour.

701 Including closed elongated access opening for guiding transverse projection travel after insertion:
This subclass is indented under subclass 700. Receiving member including a structural formation with connected walls which (a) fully encircle the access path of the projection into the cavity, and (b) have a configuration with one dimension of greater length than the corresponding dimension of the projection in its inserted attitude to allow the projection after insertion therethrough to abruptly change its direction of movement an bodily travel a significant distance along the encircling walls in a path which is transverse to the access path to complete interlock.

(1) Note. The distance traveled by the projection during its transverse movement should be at least half of the projection's length in its corresponding dimension to be considered significant.

(2) Note. One of the encircling walls may be formed by a portion of the structure-to-be-secured* connected to the other walls.

(3) Note. If no abrupt change in travel direction is necessary by the projection after it's insertion through the access opening to complete interlock, then it is not proper in this subclass.

(4) Note. A minor gap in the access opening encircling wall which does not allow any of the projection member's structure to pass therethrough is still considered to be "fully encircling" and proper for this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

666+, for similar art having a resiliently biased interlocking component or segment.

702 Having access opening with gapped perimeter for allowing movement of noninserted projection support therepast:

This subclass is indented under subclass 700. Receiving member having its cavity defined by structure which only partially encircles the access path of the inserted portion of the projection at the point where its movement is initially restricted by the cavity and wherein the vacant space in the structure at this point is intended to allow a noninserted portion of the projection member supporting the projection (i.e., the portion linking or mounting the inserted projection to the structure-to-be-secured* or a supporting structure therefor) to travel with the projection to a location beyond the projection entry point into the cavity.

(1) Note. See (2) Note of subclass 588.

SEE OR SEARCH THIS CLASS, SUBCLASS:

669+, for similar art having a resiliently biased component or segment.

703.1 FASTENER DESTRUCTIVELY SECURED BY RESHAPING DISTORTION FORCE:

This subclass is indented under the class definition. Subject matter comprising a securing means having an initial configuration which is altered during the securing operation by a deforming force transmitted to a portion thereof in excess of the amount of force necessary for plastic deformation of the material from which it is constructed (i.e., a force greater than any natural resiliency in the material which causes structural fatigue) and causing it to either break or bend into a new configuration it maintains during the securing operation after the force is removed.

(1) Note. This subclass is intended to provide for securing means which either (a) can not be removed without the destruction of the means when the securing operation is reversed (i.e., permanently deformed fasteners), or (b) will be destroyed by structural fatigue of the material after repeated operations weaken the material at the bending portion (i.e., ductilely reshapeable fastener).

(2) Note. See the class definition for patent placement procedure.

(3) Note. This subclass and its intended subclasses are intended to provide a single temporary locus within Class 24 for deformable fasteners currently found in existing subclasses therein. Until these deformable fasteners are gathered together at this locus it is not possible to establish clear lines with, and transfer large groups of patents to, either Class 411 or Class 403. Therefore, deformable fasteners have been transferred to Class 411 or Class 403 only when an existing subclass therein already specifically provides for them.

SEE OR SEARCH THIS CLASS, SUBCLASS:

16+, for bale ties, package ties, and hose clamps which are reshaped or deformed.
30.5, for twisted bag fasteners.
35+, for bendable, one-piece belt fasteners.
94+, for buttons mounted to the struct-ure-to-be-secured* by a deflecting prong or rivet.
115+, for bendable cord or rope holders.
265, for bendable strap-end-attaching devices.
687+, for similar art utilized in mounting a separable-fastener* member.
704.1+, for fasteners which are destructively distorted only when disengaged.

SEE OR SEARCH CLASS:

5, Beds, subclass 655.6 or 696, for a tufting button having air venting structure intended for use with a mattress or cushion.

403, Joints and Connections, appropriate subclasses, for a deformed fastener having structure which makes it peculiar to use with a provided for joint.

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, appropriate subclasses, for general utility fasteners having a deformed portion.

454, Ventilation, subclasses 120, 140, 144, and 152 for a tufting button having air venting structure intended for use with a seat.

703.2 Distorted structure having shape facilitating impaling:

This subclass is indented under subclass 703.1. Securing means wherein the deformed portion of the means has an initial configuration facilitating its penetrating into and forming a hole through either the structure-to-be-secured* or a support member therefor.

(1) Note. Class 402 takes a deformed fastener which clearly discloses that the fastener (a) enters or forms an opening in a sheet of paper, (b) can be separated by hand from the sheet after fastening without damage to either the sheet or fastener, and (c) has the sole disclosed utility of retaining a sheet of a paper. A fastener which is reusable after removal is assumed to be undamaged under the standards of Class 402. Also, a paper fastener which does not state that it is either damaged or reusable after removal in the disclosure is (a) assumed reusable if it is deformed by direct manual force and contact and (b) assumed damaged if it is deformed by contact with other fastener structure (e.g., anvil plate) which prevents direct manual contact with the deformed segment after fastening.

SEE OR SEARCH CLASS:

402, Binder Devices Releasably Engaging Aperture or Notch of Sheet, subclasses 14+, for a deformable sheet retainer secured by folding a portion thereof.

703.3 And distinct fastener structure cooperating with impaled structure:

This subclass is indented under subclass 703.2. Securing means wherein the deformed portion after penetration engages another portion of the securing means which does not penetrate through either the structure-to-be-secured* or a support member thereof.

703.4 Detached cooperating structure:

This subclass is indented under subclass 703.3. Securing means which the deformed penetrating portion prior to its penetration is completely disconnected from the nonpenetrating engaging portion of the means.

SEE OR SEARCH CLASS:

402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclasses 15+ for a deformable retainer cooperating with a holder therefor.

703.5 Including plural impaling elements:

This subclass is indented under subclass 703.2. Securing means in which the deformed portion includes two distinct penetrating elements.

SEE OR SEARCH CLASS:

402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclass 14 for a deformable sheet retainer.

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 457+ for a multiple prong impact driven fastener.

703.6 Elements form single aperture (e.g., split shank type):

This subclass is indented under subclass 703.5. Securing means wherein the penetrating elements touch each other during penetration and form a single hole through the structure-to-be-secured* or a support member therefor.

SEE OR SEARCH CLASS:

402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclass 14 for a deformable sheet retainer.

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclass 502, for headed fasteners having plural deflected legs.

704.1 READILY INTERLOCKING, TWO-PART FASTENER REQUIRING EITHER DESTRUCTIVE OR TOOL DISENGAGEMENT:

This subclass is indented under the class definition. Subject matter comprising a securing means having two repositionable portions which are easily brought into final securing engagement with each other by unassisted manual force and are held in this engaged position by either (1) the relative movement between sections of one of the portions, (2) the reorientation after contact of one of the portions relative to the other portion, or (3) an external force transmitted to one of the portions by a structure-to-be-secured* or a supporting structure therefore, and wherein one of these holding methods prevents the portions from separating until either (a) a force of sufficient magnitude is applied to the securing means to destructively distort an engaging portion thereof rendering it unusable unless repaired, or (b) a tool required operation (i.e., an operation which could not be done by unassisted manual force or dexterity in the disclosed environment) is utilized to manipulate, or apply a force to, an engaging portion of the securing means.

(1) Note. This subclass and its indented subclasses are intended to provide a single locus within Class 24 for destructive or tool disengaged, readily interlocking fasteners currently found in existing subclasses therein. Until these fasteners are gathered together at this locus it is not possible to establish clear lines with Class 411 or Class 403. Therefore, only fasteners of this type already specifically provide for in Class 403 or Class 411 have been transferred thereto.

(2) Note. See the class definition for patent placement procedure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

572, for separable-fasteners* which have two separate components dissociated from each other by tool manipulation of an operator* attached to one of the components.

703.1+, for a fastener which is both destructively secured and disengaged.

SEE OR SEARCH CLASS:

70, Locks, subclass 57.1 for a detectable device attached to an article by a pin fastener releasable only by a key or special tool.

292, Closure Fasteners, subclasses 307+ for a readily interlocking two-part seal.

403, Joints and Connections, subclasses 326+ for a joint using a biased catch, and subclasses 345+ for interfitted members joined together by a readily interlocking fastener.

704.2 Including additional fastener structure linking parts:

This subclass is indented under subclass 704.1. Subject matter including structure attached to both repositionable portions which (a) does not affect the securing engagement therebetween and (b) connects them together before they are in their final securing position.

705 PIERCED EARRING FASTENER:

This subclass is indented under the class definition. Subject matter comprising a securing mechanism having an elongated component which passes through an existing hole located in the earlobe of a person to attach an ornament thereto.

(1) Note. See the class definition to determine the extent to which the earring may be claimed and remain proper for this class.

(2) Note. A device intended to imaple the flesh of the earlobe is excluded from this subclass and is classified in Class 128.

SEE OR SEARCH THIS CLASS, SUBCLASS:

90.1+, for a button attached to material with a similar type fastener.

SEE OR SEARCH CLASS:

63, Jewelry, subclasses 12 and 13 for a pierced earring claiming a specific detail (e.g., setting lock contoured to shape of earlobe) or a specificity of material (e.g., made from gold) of the earring beyond that required for a general fastener.

119, Animal Husbandry, subclasses 759 and 767 for a poke having a skin piercing attachment to an animal, subclasses 824+ for a nostril attached mouth restraint, subclasses 835+ for a snout restraint that pierces the skin, and subclass 866 for a nose ring.

128, Surgery, subclass 329 for earrings which puncture the earlobe.

706 PIN OR SEPARATE ESSENTIAL COOPERATING DEVICE THEREFOR:

This subclass is indented under the class definition. Subject matter comprising either (a) a pin*, (b) a required portion thereof (i.e., penetrating portion, nonpenetrating portion), or (c) a discrete device intended to interact with a required portion of the pin* and affect its operation in the final securing position of the pin*.

(1) Note. A device intended for impaling the flesh of an animal (e.g., fish hook) is excluded from this and the indented subclasses an is classified elsewhere based on its intended use (e.g., Class 17 for a meat skewer, Class 604 for a hypodermic needle).

(2) Note. See the class definition for patent placement procedure.

(3) Note. The penetrating fasteners found in this and the indented subclasses are never intended to be directly driven by a tool into the structure-to-be-secured*. A tool driven penetrating fastener (e.g., nail) or a penetrating fastener which is commonly known to be either tool driven or inserted by hand (e.g., tack) is classified in Class 411. In addition, a device which interacts with and affects the securing operation of a penetrating fastener and either (a) is directly moved by a tool to or from its secured position with the penetrating portion of the fastener (e.g., nut) or (b) has a component or surface for directing, constraining, or shielding the penetrating portion of a fastener directly moved by a tool (e.g., distorted lock washer) is excluded from this and the indented subclasses. However, a device which merely has a movable component or surface shifted by a tool actuated operator* is proper for this and the indented subclasses.

(4) Note. Pins which are used as tools are excluded from this class (see Lines With other Classes of the class definition) and are found elsewhere (e.g., see search notes below for knitting needles, apparel apparatus, and sewing machine needles).

SEE OR SEARCH CLASS:

2, Apparel, subclass 56 for an armpit shield with dress-attaching feature.

16, Miscellaneous Hardware, subclasses 4+ for a carpet fastener which penetrates through or into a carpet, and subclasses 87.2+ for a flexible panel attaching means which penetrates into the panel to attach itself thereto and travels along a track.

30, Cutlery, subclasses 164.5+ for an ice pick.

40, Card, Picture, or Sign Exhibiting, subclasses 1.5+ for a pin fastener in combination with a specific detail of a badge, and subclasses 24 and 25 for a check, label, or tag fastener which penetrates through or into the supporting article and has a special check, label, or tag accommodating feature (e.g., holder).

43, Fishing, Trapping, and Vermin Destroying, for devices which penetrate the flesh of an animal, particularly subclass 5 for a gaff, subclass 6 for a spear, and subclasses 43.16+ for a hook.

63, Jewelry, subclass 20 for an ornamental pin claiming a specific detail (e.g., setting) or specificity of material (e.g.,

made of gold) of the pin beyond that requiring for a fastener of general utility.

66, Textiles: Knitting, subclasses 116+ for knitting needles.

112, Sewing, subclasses 222+ for sewing machine needles.

128, Surgery, subclasses 339+ for a needle for carrying a suture through skin.

132, Toilet, subclasses 57.1+ for a pin type fastener attached to a hat or for a detached pin fastener cooperating with a hat attached guide or tip protector.

163, Needle and Pin Making, subclasses 6+ for methods and apparatus for making a pin.

223, Apparel Apparatus, subclasses 102+ for sewing needles.

224, Package and Article Carriers, subclass 103 for fish and game stringers.

294, Handling: Hand and Hoist-Line Implements, subclasses 126+ for a handling harpoon.

369, Dynamic Information Storage or Retrieval, subclass 173 for a stylus.

402, Binder Devices Releasably Engaging Aperture or Notch of Sheet, for a fastener which (1) enters or forms an opening in a sheet, (2) can be separated by hand without damage to either the sheet or fastener, and (3) has the sole disclosed use of retaining a sheet.

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 439+ for a nail, tack, or staple.

452, Butchering, subclass 176 for skewering type devices which are used to close the visceral cavities of fowl in preparation for marketing.

604, Surgery, subclasses 187+ for hypodermic needles.

D11, Jewelry, Symbolic Insignia, and Ornaments, subclass 206 for a safety pin design and subclass 207 for a hat pin design.

706.1 With separately operable, manually releasable, nonpenetrating means for mounting (e.g., drapery hook):

This subclass is indented under subclass 706. Subject matter provided with means for connecting the pin* or its interacting device to a portion of the structure-to-be-secured* or a supporting member therefor, and wherein the means (a) does not affect the operation of the pin* or interacting device when connected or released, (b) is connected or released solely by direct manual force, and (c) does not penetrate the structure-to-be-secured* or support member when connected.

SEE OR SEARCH CLASS:

16, Miscellaneous Hardware, subclasses 4+ for a carpet fastener which penetrates through or into a carpet, and subclasses 87.2+ for a flexible panel attaching means which penetrates into the panel to attach itself thereto and travels along a track.

706.2 Having distinct guiding, holding, or protecting means for penetrated portion:

This subclass is indented under subclass 706. Subject matter having means which both (1) does not penetrate through the hole formed by the impaling structure of the penetrating portion and (2) is intended to cooperate with the penetrated portion of the pin* to either (a) direct or constrain the motion of this portion (e.g., prevent its withdraw) or (b) shield the impaling structure of the portion from harmful contact with other objects.

(1) Note. Directing, constraining, or shielding means considered proper for this and the indented subclasses must either partially surround or directly contact an exposed section of the penetrating portion which has gone completely through the structure-to-be-secured* or a supporting member therefor. Means which (1) merely covers a surface of the material opposite to that penetrated into by the penetrating portion or (2) contacts the penetrating portion within the material penetrated is classified elsewhere under subclass 706 (e.g., 711.5, 710.6).

706.3 Means detachable from or flaccidly connected to pin (e.g., hatpin type):
This subclass is indented under subclass 706.2. Directing, constraining, or shielding means which is either (a) completely separate from or (b) only connected by flaccid* structure to the pin* when the pin* is not in its final securing position.

SEE OR SEARCH CLASS:
132, Toilet, subclasses 69.1 and 72.1 for hat attached devices which protect the tip of a pin.

706.4 For pin having plural penetrating portions:
This subclass is indented under subclass 706.3. Directing, constraining, or shielding means intended to interact with a pin* having two or more penetrating portions which form distinct holes in the structure-to-be-secured* or its supporting member.

(1) Note. The means must interact with at least one of the penetrating portions of the pin* for proper document classification herein, but need not direct, constrain, or shield the remaining penetrating portion(s).

706.5 Including relatively movable guiding, holding, or protecting components or surfaces:
This subclass is indented under subclass 706.3. Directing, constraining, or shielding means including either (a) two distinct parts connected together in a manner allowing them at their connection point or region to move relative to each other when the penetrating portion is directed, constrained, or shielded by these parts or (b) a surface segment integral with or rigidly affixed to another surface segment and movable relative to this segment when the penetrating portion is directed, constrained, or shielded by these segments.

706.6 Having operator for moving holding component or surface:
This subclass is indented under subclass 706.5. Directing, constraining, or shielding means having an operator* for moving either into or out of contact with the penetrating portion a part or surface segment of the means which constrains the motion of the penetrating portion when it is in contact therewith.

(1) Note. An operator* proper for this and the indented subclasses may also help to direct or shield the penetrating portion of the pin*. However, if it contacts and directly constrains the motion of the penetrating portion, it is not considered a proper operator* for this and the indented subclasses and is placed as a relatively movable constraining part elsewhere under subclasses 706.5.

706.7 Moves pivoting holding component:
This subclass is indented under subclass 706.6. Directing, constraining, or shielding means wherein the part moved by the operator* is connected to another part of the means in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on the other part of the means and (b) maintain relative movement between its surface and that of the other part at the point or region about which it swings while traveling to or from its portion contacting position.

706.8 Moves slidably guided, nonself-biasing, holding component:
This subclass is indented under subclass 706.6. Directing, constraining, or shielding means wherein the part moved by the operator* is connected to another part of the means by two mutually cooperating surfaces which (a) are each integral with or fixedly attached to a different one of the parts, (b) contact and slide relative to each other when the means constrains the penetrating portion of the pin, and (c) restrict the relative motion between the movably connected parts to substantively a single primary direction, in addition, neither of the above parts are biased along the primary directions of relative movement by their own resiliency.

SEE OR SEARCH CLASS:
279, Chucks or Sockets, subclass 75 for a socket having cam actuated roller jaws used to hold a shank.

706.9 Having pierceable (e.g., cork) or naturally resilient (e.g., rubber) surfaces:
This subclass is indented under subclass 706.5. Directing, constraining, or shielding means having the relatively movable surfaces formed

from either (a) material impaled by the penetrating portion of the pin* when it interacts with the means or (b) inherently resilient* material for gripping the penetrating portion of the pin* when it interacts with the means.

707 With pivotal connection therebetween:
This subclass is indented under subclass 706.5. Directing, constraining, or shielding means with one part connected to the other part in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on the other part and (b) maintain relative movement between its surface and that of the other part at the point or region about which it swings while traveling to or from its portion contacting position.

707.1 With slidable connection between nonself-biasing components:
This subclass is indented under subclass 706.5. Directing, constraining, or shielding means with one part connected to the other part by two mutually cooperating surfaces which (a) are each integral with or fixedly attached to a different one of the parts, (b) contact and slide relative to each other when the means direct, constrain, or shield the penetrating portion of the pin, and (c) restrict the relative motion between the movably connected parts to substantively a single primary direction, in addition, neither of the above parts are biased along the primary direction of relative movement by their own resiliency.

707.2 Having resiliently biased component or surface:
This subclass is indented under subclass 706.5. Directing, constraining, or shielding means having one of the relatively movably parts or surface segments biased either into or out of its directing constraining, or shielding position by its own resiliency or the resiliency of another part of the means attached to or contacting with it.

707.3 Coiled about longitudinal axis of held portion:
This subclass is indented under subclass 707.2. Biased part or surface segment wound or molded in the form of at least two complete, similarly shaped connected loops successively encircling the longitudinal axis of the penetrating portion in its final securing position.

707.4 And aperture therein alignable with another spaced aperture of means:
This subclass is indented under subclass 707.2. Directing, constraining, or shielding means having a hole with a continuous closed circumference formed in the biased part or surface segment of the means, the central axis of this hole being shifted away from the position to which it is normally biased and into alignment with the central axis of a hole spaced from it and formed in another part or surface segment of the means when the penetrating portion of the pin* is inserted through both holes.

707.5 And nonresilient structure for guiding portion thereto:
This subclass is indented under subclass 707.2. Directing, constraining, or shielding means having a nonresilient part or surface segment which limits the movement of the penetrating portion in at least two directions perpendicular to the one followed by the penetrating portion as it moves towards the resilient part or surface segment of the means.

707.6 Including structure for cooperating with formation (e.g., cavity) formed on penetrating portion:
This subclass is indented under subclass 706.3. Directing, constraining, or shielding means including a part or surface for contacting and interlocking with a formation which is (a) formed along the length of the penetrating portion and (b) specially shaped to mate with the part or surface.

707.7 For pin having plural penetrating portions:
This subclass is indented under subclass 706.2. Directing, constraining, or shielding means intended to interact with a pin* having two or more penetrating portions which form distinct holes in the structure-to-be-secured* or its supporting member.

(1) Note. The means must interact with at least one of the penetrating portions of the pin* for properdocument classification herein, but need not direct, constrain, or shield the remaining penetrating portion(s).

707.8 Each independently movable towards and into cooperation with means:
This subclass is indented under subclass 707.7. Directing, constraining, or shielding means wherein the movement of each penetrating portion of the pin* toward and into interaction with its means is not affected by that of the other penetrating portion.

707.9 Including relatively movable guiding, holding or protecting components or surfaces:
This subclass is indented under subclass 706.2. Directing, constraining, or shielding means including either (a) two distinct parts connected together in a manner allowing them at their connection point or region to move relative to each other when the penetrating portion is directed, constrained, or shielded by these parts or (b) a surface segment integral with or rigidly affixed to another surface segment and movable relative to this segment when the penetrating portion is directed, constrained, or shielded by these segments.

708 With connection allowing component to revolve about axis of held penetrating portion:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means with one part connected to the other part in a manner allowing to to both (a) turn about the longitudinal axis of the penetrating portion when the portion is in its final securing position and (b) block the movement of the penetrating portion from this position after turning.

708.1 With pivotal connection therebetween:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means with one part connected to the other part in a manner allowing it to both (a) swing in an arcuate path about a constantly contacted connection point or region located on either the outer part or an intermediate linking part of the means when directing, constraining, or shielding the penetrating portion and (b) maintain relative movement between the contacting surfaces of the parts at the point or region of their contact.

708.2 Having position locking means therefor:
This subclass is indented under subclass 708.1. Directing, constraining, or shielding means having locking means* to prevent the swinging part from moving.

708.3 Spring or resiliently biased:
This subclass is indented under subclass 708.1. Directing, constraining, or shielding means wherein the swinging part is moved into or out of its directing, constraining, or shielding position by the force stored in either (a) a separate spring or (b) an integral, resilient* extension of the swinging part.

708.4 With slidable connection between nonself-biasing components:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means with one part connected to the other part by two mutually cooperating surfaces which (a) are each integral with or fixedly attached to a different one of the parts, (b) contact and slide relative to each other when the parts direct, constrain, or shield the penetrating portion of the pin, and (c) restrict the relative motion between the movably connected parts to substantively a single primary direction, in addition, neither of the above parts are biased along the primary direction relative movement by their own resiliency.

708.5 Component slides parallel to axis of held penetrating portion:
This subclass is indented under subclass 708.4. Directing, constraining, or shielding means wherein the primary direction of relative movement between the parts is parallel to the longitudinal axis of the penetrating portion when it is located in its final securing position.

708.6 Means engages formation formed on penetrating portion:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means designed to contact and interlock with a formation which is (a) formed along the length of the penetrating portion and (b) specially shaped to mate with the means.

708.7 Having nonresilient and resilient components:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means having a nonresilient component and a separate resilient* component.

708.8 Means formed from single resilient wire:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means in which the relatively movable surface segments are constructed solely from a filament bent in a manner making at least one segment of the filament resilient*.

708.9 Means formed from resilient sheet metal:
This subclass is indented under subclass 707.9. Directing, constraining, or shielding means where the relatively movable surface segments are constructed from a thin piece of metal bent in a manner making at least one segment of the piece resilient*.

709 With independent, spaced, intermediate connections, or formations (e.g., coils) about which portion or means moves:
This subclass is indented under subclass 706.2. Subject matter wherein the pin* is provided with two or more connections or formations located between and linking its penetrating portion and its directing, constraining, or shielding means, the connections or formations being physically separated from each other and allowing either the portion or the means to move as a unit about one without any degree of movement being required at the other connection or formation.

709.1 Includes slidable connection:
This subclass is indented under subclass 709. Subject matter including at least one connection having two mutually cooperating surfaces which (a) are each integral with or fixedly attached to the penetrating portion, the means, or an intermediate linking part, (b) contact and slide relative to each other when the penetrating portion or the means are moved during the securing operation, and (c) restrict the relative motion at the connection between the portion and means or linking part to substantively a single primary direction.

709.2 With pivotal connection between penetrating portion and means:
This subclass is indented under subclass 706.2. Subject matter wherein the pin* is provided with a connection between its penetrating portion and its directing, constraining, or shielding means which allows (a) the penetrating portion to swing in an arcuate path about a constantly contacted connection point or region located on either the means or an intermediate linking part attached thereto during the securing operation and (b) relative movement between the contacting surfaces of the portion and means or linking part at the point or region of their contact.

SEE OR SEARCH CLASS:
403, Joints and Connections, subclasses 119+ for pivot joints, per se.

709.3 Connection also permits sliding movement:
This subclass is indented under subclass 709.2. Subject matter in which the connection between the penetrating portion and the means or linking part also allows the penetrating portion to move linearly along the length of the constantly contacted connection region (i.e., the pivot point is nonfixed).

709.4 Resiliently biased about connection:
This subclass is indented under subclass 709.2. Subject matter in which the penetrating portion is swung about the connection by the force stored in either (a) a separate spring or (b) an integral, resilient* extension of the portion, means, or linking part.

709.5 With slidable connection intermediate penetrating portion and means:
This subclass is indented under subclass 706.2. Subject matter wherein the pin* is provided with a connection between its penetrating portion and its directing, constraining, or shielding means having two mutually cooperating surfaces which (1) are each integral with or fixedly attached to the penetrating portion, the means, or an intermediate linking part, (2) contact and slide relative to each other when the penetrating portion and means cooperate during the securing operation, and (3) restrict the relative motion between the portion and means or linking part to substantively a single primary direction.

709.6 Having resilient bridging structure between portion and means:
This subclass is indented under subclass 706.2. Subject matter having an intermediate structure linking the penetrating portion of the pin* to the directing, constraining, or shielding means and biasing the portion toward or away from the means by either its own resiliency or the resiliency of another part of the pin* (e.g., spring) attached to or contacting with the structure.

709.7 Means includes structure for cooperating with formation (e.g., cavity) formed on portion:
This subclass is indented under subclass 709.6. Subject matter wherein the directing, constraining, or shielding means includes a part or surface for contacting and interlocking with a formation which is (a) formed along the length of the penetrating portion and (b) specially shaped to mate with the part or surface.

709.8 And penetrating portion formed from wire:
This subclass is indented under subclass 709.6. Subject matter also having the penetrating portion of the pin* constructed from an elongated filament.

709.9 Bridging structure includes elongated non-wire element:
This subclass is indented under subclass 709.8. Subject matter wherein the structure linking the penetrating portion to the means includes an element which (a) has a length approximately equal to that of the penetrating portion and (b) is formed from material other than an elongated filament.

710 Wire also forms coiled bridging structure about which portion moves:
This subclass is indented under subclass 709.8. Subject matter wherein the elongated filament from which the penetrating portion is formed also forms at least a segment of the linking structure, this segment being bent or molded into the shape of at least two partial, similar, adjacent loops about which the penetrating portion moves and is resiliently biased.

710.1 Including distinct device for cooperating with coil:
This subclass is indented under subclass 710. Subject matter including a device which is formed from structure other than the elongated filament and designed to interact with the loops of the filament.

710.2 Having means also formed from same wire:
This subclass is indented under subclass 710. Subject matter having the directing, constraining, or shielding means constructed from the same elongated filament forming the penetrating portion and linking structure.

710.3 With cavity for guiding structure-to-be-secured towards penetrating portion (e.g., stocking support):
This subclass is indented under subclass 706. Pin* provided with directing structure which prevents the structure-to-be-secured* from traveling in at least two directions perpendicular to the one along which the structure-to-be-secured* must move when engaging the penetrating portion.

710.4 Having penetrating portion retractable or of changeable length:
This subclass is indented under subclass 706. Pin* having either (a) its penetrating portion attached to its nonpenetrating portion in a manner allowing it to be extended from or drawn back into the nonpenetrating portion or (b) the length of its penetrating portion capable of being varied.

710.5 Having interconnected distinct penetrating portions:
This subclass is indented under subclass 706. Pin* having at least two penetrating portions which are linked together by the nonpenetrating portion of the pin* and form distinct holes in the struc-ture-to-be-secured* or its support member.

710.6 Connection allows movement therebetween:
This subclass is indented under subclass 710.5. Pin* wherein the section of the nonpenetrating portion linking at least two of the penetrating portions together allows each to move relative to each other during the securing operation.

710.7 Slidable connection:
This subclass is indented under subclass 710.6. Pin* in which the section of the nonpenetrating portion linking at least two relatively movable penetrating portions includes two mutually cooperating surfaces which (a) are each integral with or fixedly attached to one of the penetrating portions or their common nonpenetrating portion, (b) contact and slide relative to each other when the penetrating portions move during the securing operation, and (c) restrict the relative motion between the penetrating portions to substantively a single primary direction.

710.8 Resilient connection:
This subclass is indented under subclass 710.6. Pin* in which the section of the nonpenetrating portion linking the two relatively movable penetrating portion together bias the portions by its own resiliency towards or away from their final securing position.

710.9 Formed from common wire:
This subclass is indented under subclass 710.5. Pin* in which two of the penetrating portions are constructed from a single elongated filament.

SEE OR SEARCH CLASS:
411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 457+ for a multiple prong impact driven fastener.

711 And pointing in same direction:
This subclass is indented under subclass 710.9. Pin* wherein the impaling surface of both penetrating portions face toward a common direction and are parallel to each other.

711.1 Penetrating portion includes relatively movable structure for resisting extraction:
This subclass is indented under subclass 706. Pin* wherein the penetrating portion includes either (a) two distinct parts connected together in a manner allowing them at their connection point or region to move relative to each other or (b) a surface segment integral with or rigidly affixed to another surface segment and movable relative to this segment, the relative movement of the parts or surfaces occurring after the penetrating portion impales the structure-to-be-secured* or its supporting member and inhibiting or preventing its withdrawal.

SEE OR SEARCH CLASS:
294, Handling: Hand and Hoist-Line Implements, subclasses 127+ for a handling harpoon with mechanically spread barbs.

711.2 Having specific wire penetrating portion:
This subclass is indented under subclass 706. Pin* wherein the penetrating portion is constructed from an elongated filament which either (a) has a particular structural modification (e.g., stepped point) or (b) is made from a particular material.

SEE OR SEARCH CLASS:
411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 487+ for a nail, tack, or staple having specific shank or penetrating end structure.

711.3 Wire curved or bent:
This subclass is indented under subclass 711.2. Pin* in which the elongated filament forming the penetrating portion has a turned or twisted shape.

SEE OR SEARCH CLASS:
43, Fishing, Trapping, and Vermin Destroying, subclasses 43.16+ for a hook.

711.4 Having distinct head structure:
This subclass is indented under subclass 706. Pin* having its nonpenetrating portion constructed from material or structure other than that forming the penetrating portion.

(1) Note. If the nonpenetrating portion of the pin either supports or forms guiding, holding, or protecting means for the penetrating portion (e.g., contacts or covers the point of the pin), then it is not proper for this and the indented subclass and is found in subclasses 706.2+.

SEE OR SEARCH CLASS:

411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclass 480 for an impact driven fastener having a separately attached head.

711.5 Movably connected to penetrating portion:
This subclass is indented under subclass 711.4. Pin* having a connection between its penetrating portion and nonpenetrating portion which allows the two portions to move relative to each other when fastening.

712 DRAWSTRING, LACED-FASTENER, OR SEPARATE ESSENTIAL COOPERATING DEVICE THEREFOR:
This subclass is indented under the class definition. Subject matter comprising either (1) a drawstring*, (2) a laced-fastener*, (3) a required component thereof (i.e., string, string guiding means) or (4) a discrete device intended to contact and interact with a required portion of the laced-fastener* to affect its operation.

(1) Note. Some patents within this and the indented subclasses have been placed solely on either (1) their principle disclosed use or (2) their commonly known use in the disclosed environment (e.g., an eyelet shown near the opening of a shoe) when no special art classification for the claimed device exist elsewhere.

(2) Note. Patents which merely name an eyelet or grommet mounted on flaccid material have been placed within this and the indented subclasses even if there is no disclosure that they are string guiding means proper for this and the indented subclasses, when their disclosures do not state what passes through their guiding cavity and the eyelets or grommets do not attach layers of material together.

(3) Note. See the class definition for patent placement procedures.

SEE OR SEARCH THIS CLASS, SUBCLASS:

18, for a cord type packet holder.

34, for a laced-fastener* used to connect the ends of a belt.

SEE OR SEARCH CLASS:

2, Apparel, subclass 270 for means which closes the opening in the sleeve or leg portion of apparel.

29, Metal Working, subclass 12 for machines or processes for making a lacing stud.

36, Boots, Shoes, and Leggings, subclasses 50.1+ for a laced-fastener* in combination with specific shoe structure.

87, Textiles: Braiding, Netting, and Lace Making, for a process or apparatus for making a strand.

128, Surgery, subclasses 565 and 571 for bandaging having a laced-fastener*.

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclass 70 for a method of encasing a drawstring between adhering lamina.

402, Binder Device Releasably Engaging Aperture or Notch of Sheet, subclasses 8+ for a cord type binder device.

D2, Apparel and Haberdashery, subclass 316 for a shoelace.

712.1 Includes separate device for holding drawn portion of lacing:
This subclass is indented under subclass 712. Subject matter including a device which (a) is neither part of nor fixedly attached to the string or string guiding means of either the drawstring* or laced-fastener* and (b) prevents, or helps to prevent, retrograde movement of the extracted portion of the string from its securing position.

(1) Note. In general, a device which is part of guiding means for the string is not proper for this and the indented subclasses. However, if a guiding means with a device is intended to always be used at the end of a series of diverse type guiding means which are not intended to prevent the movement of the string, then it is proper for this area.

SEE OR SEARCH THIS CLASS, SUBCLASS:

115+, for a fastener which engages and holds one portion of a cord or rope having a principle utility outside this class (i.e., the rope or cord is a structure-to-be-secured* and not part of a Class 24 fastener).

SEE OR SEARCH CLASS:

411, Freight Accommodation on Freight Carrier, subclasses 101+ for an anchor to secure an end of a load lashing member to a freight carrying vehicle so that the remainder of the member may be used to lash a freight load unit to the vehicle.

712.2 Device engages tie in lacing:
This subclass is indented under subclass 712.1. Movement preventing device which contacts and works in conjunction with a knot or bow formed in cooperating extracted portions of the string.

SEE OR SEARCH CLASS:

2, Apparel, subclass 245 for a shoe ornament.

712.3 And fully covers tie:
This subclass is indented under subclass 712.2. Movement preventing device wherein either the knot or bow in the string is entirely concealed beneath the perimeter of the device.

712.4 Device engages element or formation on lacing:
This subclass is indented under subclass 712.1. Movement preventing device which contacts and works in conjunction with either (1) a distinct element attached to and supported by the string or (2) a structural formation (e.g., aperture) formed in or on the string to prevent retrograde movement of the string.

712.5 Having relatively movable holding components or surfaces:
This subclass is indented under subclass 712.1. Movement preventing device having either (1) two distinct parts connected together in a manner allowing them at their connection point or region to move relative to each other when the components contact and act together to prevent retrograde movement of the string or (2) a segment integral with or rigidly affixed to another segment and movable relative to this segment when the two segments contact and act together to prevent retrograde movement of the string.

712.6 With pivotal connection therebetween:
This subclass is indented under subclass 712.5. Movement preventing device with one string contacting part connected to another string contacting part in a manner allowing it to both (1) swing in an arcuate path about a constantly engaged connection point or region located on either the other string contacting part or an intermediate linking part of the device and (2) maintain relative movement between the engaging surfaces of the parts at the point or region of their engagement when shifting toward or away from its string contacting position.

712.7 With integral resilient linking structure therebetween:
This subclass is indented under subclass 712.5. Movement preventing device with one string contacting segment connected to another string contacting segment by intermediate structure unitarily constructed with the two contacting segments and biasing them by its own resiliency either toward or away from their string contacting position.

712.8 Formed from wire:
This subclass is indented under subclass 712.7. Movement preventing device in which the intermediate structure is constructed from an elongated filament.

712.9 Having lacing wound thereabout or wedged therein:
This subclass is indented under subclass 712.1. Movement preventing device having specifically shaped structure either upon which the string is wrapped around or into which the string is compressed to prevent retrograde movement thereof.

713 With holding means fixedly mounted on lacing:
This subclass is indented under subclass 712. Subject matter provided with means stationarily attached to the string for preventing, or helping to prevent, retrograde movement of the

extracted portion of the string from its secured position.

713.1 And forming lacing tips:
This subclass is indented under subclass 713. Movement preventing means which also shields or encases the ends of the string to either prevent damage to the ends or facilitate their passage through the guiding means.

713.2 Includes lacing holding structure within directing means therefor:
This subclass is indented under subclass 712. String guiding means which includes a component of surface for preventing, or helping to prevent, retrograde movement of the extracted portion of the string from its securing position.

713.3 Having diverse shaped directing means for lacing:
This subclass is indented under subclass 712. Subject matter wherein the string is guided by at least two differently configured guiding means.

713.4 Having lacing directing means in particular pattern:
This subclass is indented under subclass 712. Subject matter wherein the string is guided along its path by two or more guiding means placed in a specific relationship to each other or a design.

713.5 Includes lacing guiding roller within directing means:
This subclass is indented under subclass 712. String guiding means including a component for reducing friction which rotates about an axis when the string contacts and is pulled across its surface.

713.6 Having eyelet type directing means:
This subclass is indented under subclass 712. String guiding means having structure at least partially encircling a string guiding aperture which completely passes through and has its central axis perpendicular to the longitudinal plane of the structure-to-be-secured.*

SEE OR SEARCH THIS CLASS, SUBCLASS:
661, for a receiving cavity (e.g., button hole) of a separable-fastener* which is defined by both flaccid* and non-flaccid components.

SEE OR SEARCH CLASS:
16, Miscellaneous Hardware, subclasses 2.1+ for a device which lines and reinforces an opening in a structure to prevent abrasion of an element passing therethrough, and subclasses 108+ for an annular protective device which prevents abrasion of an element passing through a pipe or conduit.
40, Card, Picture, or Sign Exhibiting, subclass 27 for a reinforcing device which prevents a label or tag from tearing.
112, Sewing, subclass 66 for special machines which stitch around the edges of an eyelet.
114, Ships, particularly subclasses 114 and 115 for an eyelet on a sail.
174, Electricity: Conductors and Insulators, subclasses 152+ for a bushing type insulator passing through a wall or plate.
411, Expanded, Threaded, Driven, Headed, Tool-Deformed, or Locked-Threaded Fastener, subclasses 439+, for a fastener securing two layers of material together and having a hole formed therethrough which is not disclosed for use as a passageway for an element (e.g., lacing).

713.7 With permanently deformed mounting structure:
This subclass is indented under subclass 713.6. String guiding means provided with structure for attaching the guiding means to the structure-to-be-secured* which has a portion of its initial configuration altered during the attaching operation by a deforming force in excess of the amount of force necessary for plastic deformation of the material from which the structure is constructed.

SEE OR SEARCH CLASS:
29, Metal Working, subclasses 505+ for the process of joining two parts together by distorting a portion of at least one of the parts beyond its elastic limit.

713.8 Mounting structure formed from different material than directing passage:
This subclass is indented under subclass 713.7. String guiding means in which the attaching structure is constructed from material diverse from that used in at least one portion of the structure which encircles the string guiding aperture.

713.9 Having hook shaped directing means:
This subclass is indented under subclass 712. String guiding means having an elongated planer shank and a curved or bent appendage which projects therefrom and has its remaining end unconnected thereto, the free end of the appendage and a portion of the shank defining a gap through which the string may enter or leave the guide means when moved in a direction perpendicular to the direction the string travels when guided.

714 And movable component or surface for closing throat:
This subclass is indented under subclass 713.9. String guiding means having either (1) a distinct displaceable part connected to or (2) a displaceable surface segment integral with or rigidly affixed to the shank or appendage of the guiding means for blocking the gap through which the string enter or leaves.

714.1 Mounted by structure allowing bodily movement thereof:
This subclass is indented under subclass 713.9. String guiding means which is attached to the structure-to-be-secured* by structure permitting the string guiding portion of the means to move as a complete unit relative to the surface to which it is attached.

SEE OR SEARCH THIS CLASS, SUBCLASS:
439, for Slit Closing means which includes a laced-fastener* between parts of its slidable bridging component.

714.2 Formed from wire:
This subclass is indented under subclass 713.9. String guiding means in which the shank and its curved or bent appendage are constructed from an elongated filament.

714.3 With mounting structure formed from different material:
This subclass is indented under subclass 713.9. String guiding means provided with structure to attach the guiding means to the structure-to-be-secured* which is constructed from material diverse from that used in at least one part of the remainder of the guide means.

714.4 With permanently deformed mounting structure:
This subclass is indented under subclass 713.9. String guiding means provided with structure for attaching the guiding means to the structure-to-be-secured* which has its initial configuration altered during the attaching operation by a deforming force in excess of the amount of force necessary for plastic deformation of the material from which the structure is constructed.

SEE OR SEARCH CLASS:
29, Metal Working, subclasses 505+ for the process of joining two parts together by distorting a portion of at least one of the parts beyond its elastic limit.

714.5 Expanding stud:
This subclass is indented under subclass 714.4. Deformed attaching structure having a narrow shank portion which first passes through the structure-to-be-secured* and then has the width of the end projecting therethrough broadened by the deforming force to prevent its withdrawal.

714.6 Having loop or sleeve shaped directing means:
This subclass is indented under subclass 712. String guiding means attached to the structure-to-be-secured* and having a curved or bent configuration which either fully encircles, or coacts with the structure-to-be-secured* to fully encircle, a passage through which the string travels when guided.

714.7 Entirely formed from flaccid material:
This subclass is indented under subclass 714.6. String guiding means which is completely constructed from a flaccid* material (e.g., cord).

714.8 Mounted by structure allowing bodily movement thereof:
This subclass is indented under subclass 714.6. String guiding means which is attached to the structure-to-be-secured* by structure permitting the string guiding portion of the means to move as a complete unit relative to the surface to which it is attached.

SEE OR SEARCH THIS CLASS, SUBCLASS:
439, for Slit Closing means which includes a laced-fastener* between spaced parts of its slidable bridging component.

714.9 Formed from wire:
This subclass is indented under subclass 714.6. String guiding means which is constructed from an elongated filament.

715 With permanently deformed mounting structure:
This subclass is indented under subclass 714.6. String guiding means provided with structure for attaching the guiding means to the structure-to-be-secured* which has its initial configuration altered during the attaching operation by a deforming force in excess of the amount of force necessary for plastic deformation of the material from which the structure is constructed.

SEE OR SEARCH CLASS:
29, Metal Working, subclasses 505+ for the process of joining two parts together by distorting a portion of at least one of the parts beyond its elastic limit.

715.1 Loop or sleeve closed when mounted:
This subclass is indented under subclass 715. String guiding means wherein the passage in the means through which the string passes is fully encircled only after the attaching structure is deformed.

715.2 Expanding stud:
This subclass is indented under subclass 715. Deformed attaching structure having a narrow shank portion which first passes through the structure-to-be-secured* and then has the width of the end projecting therethrough broadened by the deforming force to prevent its withdrawal.

715.3 Having elastic segment in lacing:
This subclass is indented under subclass 712. String having at least a portion of its length either (1) formed from or combined with flaccid* resilient* material or (2) attached to and supporting a resilient* element (e.g., spring).

SEE OR SEARCH CLASS:
57, Textiles: Spinning, Twisting, and Twining, subclasses 225+ for an indefinite length strand having an elastomeric material core.
87, Textiles: Braiding, Netting, and Lace Making, subclass 2 for processes for making an elastic strand.

715.4 Having means covering tip of lacing:
This subclass is indented under subclass 712. String having means located thereon for shielding or encasing at least one of its ends to either prevent damage to the end or facilitate its passage through the guiding means.

SEE OR SEARCH THIS CLASS, SUBCLASS:
713.1, for holding means which also covers the tips of its lacing.

SEE OR SEARCH CLASS:
57, Textiles: Spinning, Twisting, and Twining, subclasses 232+ for an indefinite length strand having a coated or impregnated segment.
425, Plastic Article or Earthenware Shaping or Treating: Apparatus, cross-reference art collection 807 for lace tipping apparatus.

715.5 Tasseled:
This subclass is indented under subclass 715.4. Shielding or encasing means which includes either (1) multiple parallel cords or (2) a slitted part with multiple parallel tentacles, the cords or tentacles having one of their ends fixedly attached to the string and the other end extending away from the string and dangling freely.

SEE OR SEARCH CLASS:
428, Stock Material or Miscellaneous Articles, subclass 28 for a decorative element placed on the end of an article.

715.6 With plural components:
This subclass is indented under subclass 715.4. Shielding or encasing means provided with two distinct parts which are connected together when attached to the string.

715.7 With permanently deformed mounting structure:
This subclass is indented under subclass 715.4. Shielding or encasing means provided with structure for attaching the means to the string which has its initial configuration altered during the attaching operation by a deforming force in excess of the amount of force necessary for plastic deformation of the material from which the structure is constructed.

SEE OR SEARCH CLASS:
29, Metal Working, subclasses 505+ for the process of joining two parts together by distorting a portion of a least one of the parts beyond its elastic limit.

716 HANGER ON PORTABLE ARTICLE SUPPORT FOR MANUAL ATTACHMENT THEREOF TO OVERHEAD SUPPORT (E.G., DRAPERY HOOK):
This subclass is indented under the class definition. Subject matter comprising connecting means on transportable article supporting structure which is attached or detached solely by direct manual force to a support member (e.g., rod) located above it when the article supporting structure is suspended therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:
706.1, for a pin* mounted to supporting structure by manually releaseable means.

SEE OR SEARCH CLASS:
16, Miscellaneous Hardware, subclasses 87.2, 93, 94, 95, and 96, for a drapery support in combination with guide shoe or guide track structure.
160, Flexible or Portable Closure, Partition, or Panel, subclass 404 for the combination of a hook element supporting fabric from an elongated support element.
223, Apparel Apparatus, subclasses 85+ for a garment hanger (e.g., coat hanger) provided with a support hook and Dig. 4 for a garment hanger support hook or garment support hook.

CROSS-REFERENCE ART COLLECTIONS

900.1 SHIRT COLLAR HOLDERS:
Fastener designed to hold one or more portions of a neck encircling band of a shirt in a particular position relative to either another portion of the neck encircling band or the shirt.

901 PENETRATING-TYPE PAPER FASTENER:
Fastener designed to pierce into or through a sheet of paper.

902 TUFTING BUTTON FASTENER:
Fastener designed to attach either an affixed head portion or a separate button to an upholstery cover.

903 ARMPIT SHIELD FASTENER:
Fastener designed to attach a perspiration absorbing pad to an article of clothing at the section thereof which is nearest to the armpit.

904 GLOVE FASTENER:
Securing means designed to either (a) close an opening in a hand covering or (b) hold one portion of a hand covering relative to another portion thereof.

905 WATCH CHAIN FASTENER (E.G., SWIVEL HOOK):
Securing means designed to releasably attach the end of a chain to a watch supported thereby.

906 FASTENER FOR ATTACHING BAND TO WATCH OR SIMILAR ARTICLE (E.G., NAME PLATE):
Securing means designed to releaseably attach either a watch or another article of like size to a band intended to be worn around an appendage of a person.

907 PLASTIC HOOK:
Securing means which is completely constructed from a plastic compound (e.g., synthetic resin, polymer) and includes an elongated shank portion with a bent or curved appendage projecting therefrom.

908 FISHLINE SUPPORTED ATTACHMENT HOOK:
Securing means which is designed to be mounted on a fishline and to releasably attach fishing apparatus (e.g., fishhook) thereto and which includes an elongated shank portion with a bent or curved appendage projecting therefrom.

909 WINDERS FOR FLEXIBLE MATERIAL:
Winders adapted to be attached to a wire, strap, or other line at a point along its length to take up slack and remain as a permanent part of the line.

910 ONE-PIECE:
Winders under art collection 909 made in one piece.

FOREIGN ART COLLECTIONS

Any Foreign patents or non-patent literature from subclasses that have been classified 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.

FOR 100 SEPARABLE-FASTENER OR REQUIRED COMPONENT THEREOF (24/572):
Subject matter comprising a separable-fastener* or a required component of a separable-fastener* (i.e., one of the interlocking members).

(1) Note. Securing means having a component which penetrates or forms a passageway through the structure-to-be-secured* and then contacts and interlocks with a dissociable cooperating member are not considered proper for this and the indented subclasses and are found generally below in subclass 706 and its indented subclasses. In addition, securing means which penetrate through the structure-to-be-secured* to form and interlock with an aperture in the structure-to-be-secured* are also not found in this and the indented subclasses and are located in subclasses 706 and 442.

(2) Note. See the class definition for patent placement procedure.

FOR 101 With third, detached member completing interlock (24/573.1):
Separable-fastener* provided with a third, dissociable member which is not directly attached to the two other mating interlocking members and which concurrently engages both of them when they are in their final fastening position to complete the interlocking connection.

(1) Note. This interlocking member may either be totally separate from or linked with the structure-to-be-secured*.

(2) Note. A separable-fastener* which includes three separate members and has at least one member which is capable of completing a useful interlocking connection between a section of the structure-to-be-secured* to which it is mounted and either another section thereof or a support therefor by selectively interlocking with either of the remaining two dissociable members without requiring (a) all three members to be interengaged to complete interlock or (b) their connections to be done in a specific sequence with each other is not considered proper for this and the indented subclasses and is found below in subclasses 605, 630, or 697.

FOR 102 And linking cavities in adjacent parallel panels (24/573.2):
Separable-fastener* wherein the dissociable member (a) enters a cavity formed in each of two distinct planar structures composing the structure-to-be-secured* or the support therefor, (b) connects the planar structures to each other, and (c) maintains the structures in parallel, noncoplanar relationship while connected.

FOR 103 Third member includes independently engaged hooks for linking spaced cavities
Separable-fasteners* wherein the dissociable member includes two distinct projections which each (a) have one of their ends connected to common, generally planar bridging structure and have their opposite

end (i.e., tip) free from fixed connection with any other portion of the dissociable member and bending generally toward the planar bridging structure or the other projection and (b) engage one of two spaced cavities and separately interlock therewith when their member bridges the space therebetween.

FOR 104 And movably connected, noninserted gate for closing access throat of hook (24/573.4):
Separable-fastener* wherein the dissociable member includes barrier means for each projection which is movably connected to or formed from the bridging structure and which closes or reduces the unobstructed spaced between the tip of its projection and the bridging structure when located in one of its positions to less than the amount of space needed to pass the projection into or out of its cooperating cavity.

FOR 105 Third member includes relatively movable, separate components (24/573):
Separable-Fastener* wherein the third member includes two parts connected together which (a) shift relative to each other during the fastening operation and (b) are structurally distinct from each other (i.e., not integrally formed or rigidly affixed to each other).

FOR 106 For parachute harness (24/573.6):
Separable-fastener* which is used to attach together at least two ends of straps arranged to hold a parachute onto the body of its user.

FOR 107 Third member consists of unitary elongated element (24/573.7):
Separable-fastener* wherein the dissociable member consist of a slender element formed from a single piece of material having no appendages along it length.

FOR 108 Each mating member having similarly shaped, sized, and operated interlocking face (24/575):
Separable-fastener* wherein the interlocking faces of each of the two dissociable, mating members have (a) approximately the same structural configuration and size, and (b) require the same manipulation to maneuver them together into mutual interlocking contact.

(1) Note. For a separable-fastener* to be proper for this subclass and the indented subclasses, the interlocking faces of the mating members must be capable of receiving each other to the same degree or alternately when maneuvered into contact. Mating members which have a similar shape, but which have a variation in sizes so that one member always surrounds a greater area of the other member are classified in other subclasses located below.

FOR 109 Including elongated face having identical parallel cross sections throughout its length (24/576):
Dissociable mating member wherein the interlocking face (i.e., the portion actually engaging opposed member during interlock) includes a single formation or group of contacting aligned formations which have (a) a significantly longer dimension in one direction (i.e., the magnitude thereof being much greater than that of any dimension of a cross-sectional slice taken perpendicular thereto) and (b) identically shaped, uniformly sized, cross-sectional configurations positioned along and perpendicular to the length of this dimension.

FOR 110 Including elongated face having varying, parallel cross sections throughout its length (24/577):
Dissociable mating member wherein the interlocking face (i.e., the portion actually engaging opposed member during interlock) includes a single formation or group of formations which has (a) a significantly longer dimension in one direction (i.e., the magnitude thereof being much greater than that of any dimension of a cross-sectional slice taken perpendicular thereto) and (b) differently shaped or sized cross-sectional configurations positioned along and perpendicular to the length of this dimension. subclass 364 for interfitted rigid* or semirigid* panels (i.e., structure-to-be-secured*) having interdigitated interlocking structure forming a joint.

FOR 111 Including complementary shaped and alternately useable interlocking faces (24/578):
Dissociable mating member wherein each mating member includes two distinct interlocking faces having configurations which are structural counterparts of one another and which are each only capable of being alternately used with the opposed mating member to engage and interlock with their counterpart configuration thereon.

(1) Note. A mating member having two distinct complementary interlocking faces alternately usable before its mounting to a supporting surface, but which is intended to utilize only one of these faces after its mounting is proper for this subclass.

FOR 112 Single piece hook-shaped member (e.g., mating garment hooks) (24/579.1):
Dissociable mating member formed from a single piece of material and having a main, generally planar, shank section connected at one end to a mounting section of this member or directly to the structure-to-be-secured*, and at the other end, to an integral of rigidly attached appendage section which appendage section (a) has its opposite end free from fixed connection with any other section of this member, and (b) bends generally towards either the connection of the shank section with the mounting section of this member, the shank section, or the structure-to-be-secured*.

FOR 113 Including member having distinct formations and mating member selectively interlocking therewith (24/580):
Separable-fastener* including a dissociable mating member with an interlocking face having a plurality of spaced, distinct structural formations and another opposed mating member with an interlocking face selectively interlockable with any of these formations to complete the securing operation.

(1) Note. An opposed member having an interlocking face which engages more than one of the structural formation on the interlocking face of the first member during a particular securing operation is only proper for this and the indented subclasses when the number of formations engaged in the securing operation can be less than the total number of formations available.

(2) Note. When both interlocking members have plural formations, then the one considered the formations member is always the one with the large number of formations. If both members have an equal number of formations and comply with the restrictions of (1) Note, then they are placed within this subclass.

FOR 114 Formations positioned along wall forming mating-member-guiding cavity (24/581):
Plural formations member having its spaced, distinct structural formations located on a surface which at least partially defines one wall of a cavity utilized by this member to guide an inserted portion of the mating member towards its final interlock position with the formations.

(1) Note. A cavity which is proper for this and the indented subclass may or may not fully encircle the segment of the pathway along which the selectively interlocking member travels during its initial insertion. However, if it only partially encircles this location, then it must clearly limit the movement of the inserted member in at least two directions which are perpendicular to the direction of its travel and in opposite directions to one another at this location.

FOR 115 Formations member having movably attached or biased interlocking structure (24/582):
Plural formations member having at least one opposed-member-guiding or contacting component which is (a) utilized to enhance the interlocking connecting between the mating members, and (b) attached in a manner allowing, or includes a portion resilient* enough to allow, the movement of this component relative to the remainder of its member during the interlocking operation.

(1) Note. The component of this subclass may be either a part of one of the forma-

tions, one of the formations, or a totally separate element from the formations.

FOR 116 Formations member having movably attached or biased interlocking structure (24/583):
Plural formations member having at least one opposed-member-guiding or engaging component which is (a) utilized to enhance the interlocking connection between the mating members, and (b) attached in a manner allowing, or includes a portion resilient* enough to allow, the movement of this component relative to the remainder of its member during the interlocking operation.

(1) Note. The component of this subclass may be either a part of one of the formations, one of the formations, or a totally separate element from the formations.

FOR 117 Selectively interlocking member having movably attached or biased interlocking component (24/584):
Selective interlocking member having at least one component for guiding or engaging the plural formations on the opposed member which (a) enhances its interlocking engagement with one of the formations, and (b) is attached in a manner allowing, or includes a portion resilient* enough to allow, the movement of this component relative to the remainder of its member during the interlocking operation

FOR 118 And cavity for guiding movement of formations (24/585):
Selective interlocking member having a cavity utilized to guide an inserted portion of the plural formations member during the interlocking operation and limit its travel by this guidance.

(1) Note. A cavity which is proper for this subclass may or may not fully encircle the segment of the pathway along which the formations member travels during its initial insertion. However, if it only partially encircles this location, then it must clearly limit the movement of the inserted member in at least two directions which are perpendicular to the direction of its travel and in opposite directions to one another at this location.

FOR 119 Having mounting means allowing repositioning of member for facilitating interlock (24/586):
Separable-fastener* wherein at least one of the mating members is mounted to structure-to-be-secured* or a support therefor by means which allows this member to be repositioned during the securing operation to facilitate the interlocking of the faces of the two mating members.

FOR 120 Including member having elongated, resilient, interlocking face with identical, parallel cross sections throughout its length (24/587):
Separable-fastener* wherein one of the dissociable mating members includes a single resilient* interlocking face (i.e., the portion actually engaging the opposed member during interlock) or a group of contacting, aligned, resilient* interlocking faces having (a) a significantly longer dimension in one direction (i.e., the magnitude thereof being much greater than that of any dimension of a cross-sectional slice taken perpendicular thereto) and (b) identically shaped, uniformly sized, cross-sectional configurations positioned along and perpendicular to the length of this dimension.

FOR 121 Including receiving member having cavity and mating member having insertable projection guided to interlock thereby (24/588):
Separable-fastener* including one dissociable mating member having a cavity portion on its interlocking face and another mating member having a projecting portion on its interlocking face insertable through the access opening (i.e., the portion of the cavity defining the segment of the pathway along which the projection travels during its initial insertion) of the cavity which receives and guides the projection towards the final position it maintains when the interlocking faces of the two mating members are secured together.

(1) Note. Patents in which both interlocking members include a cavity at least partially encompassing a portion of the opposed member's structure during their association with each other are placed in

this and the indented subclasses according to the following rule: the receiving is always the member having the largest cavity which encompasses a portion of the mating structure's surface at the interlocking connection (i.e., area or mutual contact). The only exceptions to this rule are when either a (1) hook, (2) member having a closable access opening, or (3) member having a cavity with a partially encircled access opening have a portion of their structure maneuvered through a smaller cavity located on the opposed member and having a fully encircled access opening which is not intended to be fully positioned between side walls of the first member's cavity in its final interlocked position. In these situations the member having the cavity with the largest fully encircled access opening is always considered the receiving member.

(2) Note. A cavity which is proper for this and the indented subclasses may or may not have a fully encircled access opening. However, if it only partially encircles the initial segment of the projection's pathway, it must clearly limit the movement of the inserted projection in at least two directions which are perpendicular to the direction of projection travel and in opposite directions to one another at this segment in the pathway.

(3) Note. The cavity referred to in this and the indented subclasses is always the largest structural formation of the receiving member which fulfills all the requirements of (1) and (2) Notes of this subclass, and the projection referred to is always the largest projecting portion inserted within this cavity and located on the opposed member. Patents should not be placed in this and the indented subclasses on the basis of a small "cavity" or the "projection" therefor.

FOR 122 Having divergent interlock means distinct from cavity or projection of its member (24/589):
Separable-fastener* wherein either the receiving or projection member is provided with additional means which (a) completes the interlock between the receiving and projection members, (b) is different from either the cavity or projection on its member in size, shape, and method of interlock, (c) is located completely outside of the cavity or is separate from the projection, and (d) respectively engages with structure or the opposed member distinct from either the projection or any supporting structure forming a rigidly affixed or integral extension of the projection or the internal surface of the structure defining the cavity.

FOR 123 Projection or cavity rotates about axis of cavity access opening to interlock (24/590):
Dissociable mating members, wherein either the projection or an opposed member engaging or guiding portion of the projection or the receiving member is rotated about the central axis of the cavity's access opening (i.e., the portion of the cavity defining the opening through which the projection initially enters) after or during the insertion of the projection into the cavity to complete the interlock between the members.

FOR 124 Having projection rotatably connected to its member (24/591):
Projection member having at least a component of its inserted projection connected to another component of its member (i.e., either a stationary component of the projection or noninserted component) in a manner allowing relative rotation around the connection therebetween.

FOR 125 And operator therefor (24/592):
Projection member having an operator* for turning the rotatably connected component about its connection.

(1) Note. A component which both (a) prevents the separation of the dissociable mating members, and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper operator* for this subclass and is placed as a relatively movable interlocking component.

FOR 126 And position locking-means therefor (24/593):
Projection member having locking-means* for retaining the rotatably connected component at a particular orientation when it is in interlocking engagement.

(1) Note. A component which (a) prevents the separation of the dissociable members, and (b) is located on one of the mating members and directly engages the interlocking portion of the other mating member is not considered a proper position locking-means* for this subclass and is placed elsewhere as an interlocking component.

FOR 127 Including notch or hump on projection axially biased by spring (24/594):
Locking-means* including a notch or hump formed on the rotatably connected component and resilient* biasing means for shifting this rotatable component along its rotational axis and moving the notch or hump thereon into engagement with a non-rotating component of its member.

FOR 128 Including radially biased element engaging against relatively rotating surface at connection (24/595):
Locking-means* including an element resiliently biased in a direction transverse to the central axis of the access opening and located on one relatively rotating component of the projection member and engaging and pushing against a contact surface located on the other relatively rotating component of the projection member at the connection to prevent any rotation until the resilient* force of the element is overcome by the camming action of the contact surface thereagainst.

FOR 129 And spring for axially biasing projection (24/596):
Projection member provided with resilient* biasing means attached thereto for shifting the rotatably connected projection or component thereof along its rotational axis.

FOR 130 Receiving member includes either movable connection between cavity components or variable configuration cavity (24/597):
Receiving member which includes either (a) two distinct, projection contacting or guiding components, in addition to or forming a portion or portions of the required guiding cavity, connected together in a manner allowing them at their connection point or region to move relative to each other for facilitating interlock with the projection of the mating member during the securement operation, or (b) a cavity having a projection contacting or guiding surface segment which is integral with or rigidly affixed to the surface forming the remainder of the cavity and movable relative to this remaining surface to change the shape of the cavity's periphery for facilitating interlock with the projection of the mating member during the securement operation.

END