## **CLASS 5, BEDS**

### **SECTION I - CLASS DEFINITION**

This class relates to devices intended to receive the human body in a prone, supine, or sitting position for the purpose of repose, examination, or treatment. This class includes, devices ordinarily known as beds, examining tables, operating tables, hammocks, cradles, cribs, cots, camp beds, groundmats, sleeping bags, and bed accessories, such as mattresses, pillows, surgical supports, and bed clothing.

# SECTION II - NOTES TO THE CLASS DEFINITION

- (1) Note. Excluded from this class are mosquito nets and canopies attached to or attachable to a bed or bedstead structure via a clamp, screws, bolts, or other separate, discreet fastening devices designed to be used on an existing bed (i.e., no modification of the bed or bedstead).
- (2) Note. Surgical supports for all parts of the human body, and surgical supports that are adapted to support animals or parts of animals, are included in this class.
- (3) Note. Art in this class has historically required that the device receive the body for the purpose of repose. Exceptions to this requirement are subclasses which include field stretchers, and subclasses which include invalid beds and surgical supports.
- (4) Note. Art in this class requires some structural modification to materials to adapt them for body support. The mere recitation of a support, wherein the novelty resides in a chemical composition for the support, would not suffice for inclusion in this class; it would place the application in the appropriate composition art area.

# SECTION III - REFERENCES TO OTHER CLASSES

### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, appropriate subclasses for body supports associated

- with washing or bathing a user, or associated with a user while using a toilet.
- 29, Metal Working, subclasses 91+ for methods of making upholstered articles.
- 105, Railway Rolling Stock, appropriate subclasses for modification of car structure to form berths and bunks.
- 108, Horizontally Supported Planar Surfaces, subclasses 1+ for a horizontal planar supporting surface which provides a tiltable supporting surface.
- 114, Ships, subclasses 192+ for self-leveling berths and bed structure specific to use on ships.
- 128, Surgery, subclasses 869+ for restraining and immobilizing devices.
- 135, Tent, Canopy, Umbrella, or Cane, subclasses 121+ and Cross-Reference Art Collection 913 for canopy frames and mosquito net covers.
- 182, Fire Escape, Ladder, or Scaffold, subclass 34 for a ladder convertible bed structure.
- 190, Trunks and Hand-Carried Luggage, subclass 2 for trunks and baggage convertible to beds.
- 248, Supports, subclasses 118+ for arm rests and headrests not associated with devices under the class definition.
- 267, Spring Devices, subclasses 80+ for spring panels and subclasses 142+ for cushion for human comfort.
- 296, Land Vehicles: Bodies and Tops, subclasses 19+ for ambulances, subclasses 156+ for camping vehicles, and appropriate subclasses, for vehicle structure (except seats) involving parts thereof convertible into beds.
- 297, Chairs and Seats, appropriate subclasses, for devices for supporting a seated occupant.
- 378, X-Ray or Gamma Ray Systems or Devices, subclass 209 for tables for supporting a person in combination with X-ray apparatus which often have manipulation of supports for parts of the body similar to adjustments of invalid beds.
- 428, Stock Material or Miscellaneous Articles, subclass 12 for a collapsible article; subclass 16 for treated fauna; subclasses 17+ for treated flora; subclass 71 for sheet including cover encasing foam; subclass 74 for sheet including cover encasing, noninterengaged, fibered material (e.g., batt); subclass 101 for superposed movable attached layers; subclasses 102+ for web or sheet including stitching and discrete fastener, coating, or bond; subclass 116 for a honeycomb-like web or sheet; subclass 178 for nonplanar uniform thickness material with cells; subclasses 304.4+ for composite material

having voids in a component; subclasses 357+ for coated or structurally defined flake, particle, cell, strand, strand portion, rod, filament, macroscopic fiber, or mass thereof; subclasses 402+ for particulate matter; subclasses 443+ for composite laminate including asbestos; subclass 903 for microfiber; and subclasses 920+ for fire or heat protection feature.

- 441, Buoys, Rafts, and Aquatic Devices, subclasses 125+ for a waterproof mattress or cushion having special features to convert it into a life raft or having a special shape or fastening means to enable it to conform to or secure a person"s body.
- 482, Exercise Devices, particularly subclasses 142+ for a support for the entire body of the user, e.g., a bench, slant board, etc., used for an exercise purpose.
- 600, Surgery, subclasses 9+ for magnetic devices used for therapy.
- 601, Surgery: Kinesitherapy, subclasses 49+, 86, 90, 98, 115+, and 146 for body support vibrator; subclasses 154+ for lavative devices; and subclass 158 for lavative device with applicator having specific movement on a couch.
- 607, Surgery: Light, Thermal, and Electrical Application, subclasses 104+, especially 107, for thermal applicators.
- D6, Furnishings, subclasses 331, 382-395, 596-607, 718-718.31, and other appropriate subclasses for designs for devices under the class definition.

### **SUBCLASSES**

## 1 MISCELLANEOUS:

This subclass is indented under the class definition. Subject matter comprising constructions of beds and devices pertaining to beds not provided for in the following subclasses.

### 2.1 COMBINATION FURNITURE:

This subclass is indented under the class definition. Subject matter comprising a unitary structure having features of a bed as well as those of some additional article of furniture.

(1) Note. The mere insertion of some articles, such as a receptacle, shelf, sliding table leaf, etc., in some unused space in a bed or its support or the mere attachment to a bed part of some article of furniture

or the conversion of a sofa or bed into some other piece of furniture is not sufficient to bring the device into this subclass.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

12.1+, for sofa beds.

58, 93.1+, 108, 134, and 308, for a rocking-chair combined with a cradle.

106, and 107, for cradles convertible to cribs, and vice versa.

#### SEE OR SEARCH CLASS:

280, Land Vehicles, subclass 31 for children's carriages convertible to cradles.

297, Chairs and Seats, appropriate subclasses, especially subclasses 217.1+ for seats combined with other articles of furniture.

#### 3 Table beds:

This subclass is indented under subclass 2.1. Devices relating to tables which by inversion or manipulation of parts may be converted to beds, or tables which have beds stored within and withdrawable from them.

## 4 Outfolding sides:

This subclass is indented under subclass 3. Devices having vertical sides which turn out to horizontal position to form part of the bed bottom or to support such a bottom.

### 5 Unfolding top:

This subclass is indented under subclass 3. Devices in which the top or sections of it turn out through 180° to form part of the bed frame.

# 6 Folding bed enclosed:

This subclass is indented under subclass 3. Devices in which the sides and top of the table serve to inclose a folded bed frame but do not form a part of it.

## 7 Sofa form:

This subclass is indented under subclass 3. Devices of sofa form in which the back of the sofa by manipulation becomes a table top supported on the sofa frame.

#### 8 NESTED, TWIN AND STACKED:

This subclass is indented under the class definition. Subject matter which without dismantling may be rested one above another for compactness. Twin beds consist of two bed bottoms mounted on the same frame to be on the same level with a slight or adjustable interval between them. Stacked beds are beds having socket modifications at the top and bottom, so that one may be stacked upon the other.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

9.1+, for bunks.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclass 62 for chairs or seats having one or more components reorientable to provide stacked bunks.

#### 9.1 BERTH OR BUNK:

This subclass is indented under the class definition. Subject matter closely associated in a vertical or horizontal series having some part of their supports in common.

(1) Note. The supports in common are most frequently a wall or pillar extending from floor to ceiling.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

8. for stacked beds.

171, for door beds.

### SEE OR SEARCH CLASS:

- 105, Railway Rolling Stock, subclass 316 for railway berths which modify other car structure.
- 114, Ships, subclasses 192+ for self leveling berths.
- 244, Aeronautics and Astronautics, subclass 118.6 for a berth in an aircraft.

# 10.1 WINDOW, FLOOR, CEILING, OR ROOM TO ROOM:

This subclass is indented under the class definition. Subject matter modified to project partly through a window or having some modification adapting it for use in connection with or relation to a window; having means for concealment in a floor or raising it therefrom; having means for raising it to or concealing it within a ceiling; or having special means other than casters for enabling it to be used in either of two adjoining rooms as desired.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

170+, for upending bed shifters.

### SEE OR SEARCH CLASS:

- 52, Static Structures (e.g., Buildings), subclasses 27+ and particularly subclass 36.4 wherein additional structure other than that necessary to house an article is defined.
- 454, Ventilation, subclass 197 for ventilating and screening means for window beds not involving a modification of the bed.

## 10.2 Bed stored in ceiling:

This subclass is indented under subclass 10.1. Device comprising means for raising a bed to or concealing it in a ceiling.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

159.1, for beds having cases which conceal them when upended.

## SEE OR SEARCH CLASS:

52, Static Structures (e.g., Buildings), subclasses 27+ and particularly subclass 36.4 wherein additional structure other than that necessary to house an article is defined.

## 11 ADJUSTABLE HEIGHT:

This subclass is indented under the class definition. Subject matter having means by which the height of the bed bottom from the floor may be adjusted or changed.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

10.1+, for window beds.

- 21, for an adjustable height bed which is disclosed as a change of level section of an extension type sofa bed.
- 611, for devices arranged to give a progressive continuous movement of elevation

#### **12.1 SOFA BED:**

This subclass is indented under the class definition. That subject matter which by relative movement of its parts may be converted from a seat to a bed.

(1) Note. The term sofa is considered to define a long upholstered seat usually having arms and a back.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

93.1, for sofa beds having devices attached or connected thereto for converting them to cribs.

#### SEE OR SEARCH CLASS:

Chairs and Seats, subclasses 63+ for 297. sofas or chairs convertible to beds by reorienting a component of adjacent seats; subclasses 68+ for a sofa or chair convertible to a bed by relative movement of a rest which supports the bottom, the back, or a leg; subclasses 105+ for a sofa or chair conwithdrawing vertible bv supplemental body support from a displaceable bottom; subclasses 112+ for a sofa or chair convertible by withdrawing a supplemental body support from a back; subclasses 115+ for sofas or chairs convertible to beds by movement of the arms; and subclasses 118+ for other sofas or chairs convertible to beds.

## 12.2 Knockdown sofa bed:

This subclass is indented under subclass 12.1. Subject matter in which the sofa may be quickly and easily disassembled so as to be of smaller bulk for storage.

#### 13 Link supported unfolding:

This subclass is indented under subclass 12.1. Devices including unfolding link-supported bed bottom not falling precisely under any of the following subclasses.

#### 14 Beds stowed under seat:

This subclass is indented under subclass 12.1. Devices in which the bed is stowed under a seat and withdrawn or unfolded for use. The seat may be fixed and the bed withdrawn and

unfolded or the seat may be hinged or pivoted, and in the latter case may, when lifted or moved, aid in unfolding or extending the bed.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

17+, for seats which form part of a bed.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 105+ for a seating device convertible to a bed by withdrawing a supplemental body support from a displaceable seat.

### 15 Suspended bottoms:

This subclass is indented under subclass 12.1. Devices in which the fabric is connected at the ends of the jointed bottom, so as to hang without lateral support when extended for use and baglike when folded.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

169, for similar structure on upending bedsteads.

## 16 Vertical unfolding sections:

This subclass is indented under subclass 12.1. Devices in which the bed sections stand compactly folded substantially vertically at or in the sofa back and are drawn forward or backward on a pivot and unfolded.

(1) Note. The stuffed sofa back may be rigidly fastened to one of these sections or shiftably attached.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

59.1+, for shiftable sofa seats and backs which do not form bed sections.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 112+, for a seating device convertible to a bed by withdrawing a supplemental body support from a stored position in the back.

#### 17 Extension:

This subclass is indented under subclass 12.1. Devices characterized by one or more bed sections which move out forwardly or backwardly without overturning. Extension sofa beds are

mainly of a couch type without back or stuffed ends and resemble a bedstead with very low head and foot boards.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

41, for extension seats on reverting backs.
181+, especially 185 for similar structure on bedsteads.

#### 18.1 Slidable section:

This subclass is indented under subclass 17. Device wherein one of the sections is substantially parallel to a seat means and is translatably extendable therefrom to form a bed of which the seat means is a part.

- Note. This subclass also accepts the converse wherein the seat moves and the section remains fixed.
- (2) Note. The sections may be dove-tailed and have operating means.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

14, for devices wherein the seat means forms no part of the bed.

## 19 Front and back extension:

This subclass is indented under subclass 18.1. Devices in which the seat is provided with extensions sliding out both at front and rear.

#### 20 Slide with rotation:

This subclass is indented under subclass 18.1. Devices in which a section is arranged to slide out and is afterwards turned upside down, usually to change the level.

# 21 Change of level:

This subclass is indented under subclass 18.1. Devices in which a section parallel to the seat slides out, and then the level of one or the other is substantially changed without overturn to make the two sections practically coplanar.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

18.1+, for devices in which there may be a slight elevating of one side of the movable section toward the end of its motion to bring the adjacent edges of the sections on the same level.

#### 22 Link walk-over:

This subclass is indented under subclass 17. Devices in which a section, usually a seat section, is connected to the frame by radius links to be moved out of the frame by a walk-over motion and take a position coplanar with a section in the frame.

### 23 Traversing seat with rotary follower section:

This subclass is indented under subclass 17. Devices in which a seat section is arranged to traverse forward out of the frame and has connected with it a pivoted section which overturns during the motion and becomes coplanar with the traversing section. The extreme form of this is a three-section zigzag folding.

### 24 Rotary seats:

This subclass is indented under subclass 12.1. Devices wherein the sofa seat to which the back may be attached is arranged on pivotal connections to rotate substantially within the sofa frame and carries a bed bottom on its lower surface.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

3+, if one side forms a table.

28+, for seats hinged or pivoted substantially in front to unfold out of the frame.

### 25 Unfolding sections on seat bottom:

This subclass is indented under subclass 24. Devices, in which the lower surface of the seat carrying sections are unfolded or extended to form a bed when the seat is overturned.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

28+, for unfolding features not especially bound up with rotation.

55.1+, for locking devices to prevent fall of the sections due to rotation.

# 26.1 Seat rotator:

This subclass is indented under subclass 24. Device comprising means for controlling rotational movement of the seat in the frame.

(1) Note. The rotation controlling means commonly includes such devices as trun-

nions, links and guides, pins and slots, and combinations thereof.

### 27 Pivoted seat over forward invertible section:

This subclass is indented under subclass 12.1. Devices in which the sofa seat is pivotally connected at the rear and is lifted to permit the unfolding of a forwardly-pivoted section concealed below it. The seat is then lowered to former position, the seat and section forming the bed.

## 28 Unfolding seat:

This subclass is indented under subclass 12.1. Devices possessing a section substantially in the position of a seat and pivotally connected forwardly, so it may be overturned outwardly and forwardly through about 180° to form part of the bed bottom. The actual stuffed seat may be padding on one side of this section or be attached shiftably to it (see subclass 59.1) or free from it.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

42, for unfolding seats with reverting backs.

## SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 105+ for a seat which exposes a supplemental body support by displacing the seat, as by turning it forwardly and outwardly through about 180°.

## 29 Leg supported:

This subclass is indented under subclass 28. Devices in which the unfolded section is supported by a leg.

# 30 Extension supported:

This subclass is indented under subclass 28. Devices in which a slidable or swinging frame extension serves to support the section.

## 31 With rising inner section:

This subclass is indented under subclass 28. Devices in which there is a section below the seat section forming the inner part of the bed, which is raised to bed position by unfolding the seat section.

# 32.1 Pivoted hinge plate:

This subclass is indented under subclass 31. Devices in which the seat section and the inner section are each directly or indirectly rotatably mounted to a fixed element on the frame; an intermediate section, itself rotatably attached to said fixed element, is used in the indirect versions.

#### 33 Inner section seat post:

This subclass is indented under subclass 32.1. Devices in which the shiftable seat bares a rigid post which is pivoted to the inner section or immediately at the hinge connecting the inner section to the next section.

# 34 Intermediate section seat post:

This subclass is indented under subclass 32.1. Devices in which the hinge plate or short connecting section is pivoted to the seat on the upper end (in open position) of a post rigid with the shiftable seat.

# 35 Double unfolding (including zigzag):

This subclass is indented under subclass 28. Devices in which the seat section carries additional forward unfolding bed sections.

(1) Note. These additional sections may usually be added or subtracted to arrange a bed transversely or longitudinally of the sofa. Consequently for the characteristic inner structure the appropriate subclasses 31-34 should be searched and the manner of adding foot sections be sought in this and the next subclass.

## **Double unfolding with rising inner section:**

This subclass is indented under subclass 28. Devices in which the seat section carries additional forward unfolding bed sections, the combination having a rising inner section.

### 37.1 Reverting back:

This subclass is indented under subclass 12.1. Device having a back connected to the frame in such a manner that it may be turned backward and downward through approximately 90°, thus forming a part of the bed bottom or a support for a part of the bed bottom.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 354.1+ for a seat having a back which may be tilted downward with respect to the bottom to form an extension of the bottom surface.

## 38 Leg supported:

This subclass is indented under subclass 37.1. Devices in which the back is supported by a leg, usually link connected.

# 39 Extension supported:

This subclass is indented under subclass 37.1. Devices, there being a slidable support for the back.

## 40 Wing supported:

This subclass is indented under subclass 37.1. Devices the supports for the back being wings normally parallel to the ends or some other part of the sofa frame and swinging out gatewise.

### 41 Extension seat:

This subclass is indented under subclass 37.1. Devices combined with an extension seat.

SEE OR SEARCH THIS CLASS, SUBCLASS:

17+, for methods of extending the seat.

# 42 Unfolding seat:

This subclass is indented under subclass 37.1. Devices combined with some form of forward unfolding seat.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

15, for freely suspended bottoms.

28+, for unfolding seats.

37.1, through 41, for specially supported backs.

#### 42.1 Unfolding back section:

This subclass is indented under subclass 37.1. Device wherein the back is itself unfoldable or has further attached sections which are unfoldable.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 354.1+ for a seat having a back which may be tilted downward with respect to the

bottom to form an extension of the bottom surface.

# 43 Forward-turning back:

This subclass is indented under subclass 12.1. Devices in which the back is pivotally connected below at the rear of the sofa frame and is turned forward to form a part or all of the bed bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

16, for vertically unfolding sections.

136, through 144, for devices for pivoting a vertical bed to turn down.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 112+ for a seating device in which the back carries a body support on the rear thereof, which is brought into use position by the forward turning of the back, and subclasses 125+ for a seat convertible to a table by moving the back forwardly over the seat to expose a table surface on the rear of the back.

### 44.1 Advancing and unfolding seat:

This subclass is indented under subclass 43. Device in which the forward-turning back is combined into a bed bottom with an unfolding seat.

(1) Note. The seat section may be formed of panels which are horizontally slidable or unfoldable, but the seat section must form a part of the bed bottom surface.

## 45 Traversing over seat:

This subclass is indented under subclass 43. Devices in which the back is so pivoted as to traverse clear over the seat and form a forward continuation of it.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

46.1+, for sectional seats which may be aligned to form bed bottoms

### 46.1 Carried by seat to alignment:

This subclass is indented under subclass 43. Device in which the back is pivoted to the rear of a forwardly-pivoted seat section in such fashion that grasping the back and pulling it

forward causes the back, the seat, and a section under the seat to become so ordered and arranged as to form a bed bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

31+, for an unfolding seat with rising inner section.

59.1+, for devices in which the back section is masked by a pad which must be removed in some way, e.g., grasping and pulling.

# 47 Sliding and pivoting back:

This subclass is indented under subclass 12.1. Devices so mounted for conversion to beds that the lower part moves forward as the upper part moves downward. The seat frequently advances horizontally to form, together with the back, a bed bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

147, for similarly moving upending beds.

## 48 Increasing seat:

This subclass is indented under subclass 47. Devices with a seat that increases by unfolding or extending to form a bed bottom in continuation of the back.

# 49 Drop or standing leaf:

This subclass is indented under subclass 12.1. Devices which possess at one or both sides of the seat normally pendent leaves which may be lifted and supported horizontally to form part of the bed bottom and in which one may be further lifted and sustained vertically to form a back, or both elevated to form a crib, also sofas in which a back is reverted and a front leaf elevated to form a bed.

## SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 68+ for a seating device convertible to a bed by relative movement of bottom, back and leg or footrest, which latter may be pendant in some positions of use.

### 50 Drop leaf only:

This subclass is indented under subclass 12.1. Devices with leaves supplied with devices to support them no higher than the horizontal.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

185, for laterally extended bedstead sections.

#### 51.1 Bed element:

This subclass is indented under subclass 12.1. Device relating to a specific item of structure which forms a portion of a sofa bed.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

179+, and 312+, for folding legs.

186.1, through 279.1, for bed bottoms.

279.1+, 421+, 424+, and 503.1+, for elements not peculiar to sofa beds.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 218.1+ for an upholstery cover detachably connected to a chair or seat frame and subclasses 219.1+ for a slip cover for a chair or seat.

#### 52 Sofa head and arm rest:

This subclass is indented under subclass 51.1. Devices relating to modifications in the sofa heads and arm rests consequent upon the unfolding of the sofa.

### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 115+ for a seating device convertible to a bed by relative movement of the armrest with respect to the other components, and subclasses 411.2+ for an armrest of that class (297).

### 53.1 Headboard or footboard:

This subclass is indented under subclass 51.1. Device comprising a substantially vertical retaining device for the head or foot of a bed which serves as a stop or as a protector for bed-clothes, pillows, or a person's head or feet.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

132, for three part bedsteads.

159.1+, for parts pivoted to a case to form a headboard when the bed is turned down for use.

178+, for folding head or foot bedsteads.

#### 53.2 Pivoted headboard:

This subclass is indented under subclass 53.1. Device comprising an element that is rotatable with respect to the sofa's case and forms a substantially vertical retaining device for the head of a bed and which serves as a stop or as a protector for bedclothes, pillows, or a person's head.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

132, for three part bedsteads.

159.1+, for parts pivoted to a case to form a headboard when the bed is turned down for use.

178+, for folding head or foot bedsteads.

## 53.3 Pivoted footboard:

This subclass is indented under subclass 53.1. Device comprising an element that is rotatable with respect to the sofa's case and forms a substantially vertical retaining device for the foot of a bed and which serves as a stop or as a protector for bedclothes, pillows, or a person's feet.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

132, for three part bedsteads.

159.1+, for parts pivoted to a case to form a headboard when the bed is turned down for use.

178+, for folding head or foot bedsteads.

## 54 Front board:

This subclass is indented under subclass 51.1. Devices comprising vertical closure members at the front of a sofa bed to fill the space or a part of the space between the seat upholstery and the floor.

#### 55.1 Latch:

This subclass is indented under subclass 51.1. Device comprising a fastener means especially adapted for holding parts of sofa bed in open or closed position.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

167, for locks applied to upending bedsteads.

#### SEE OR SEARCH CLASS:

70, Locks, for locks of general utility.

292, Closure Fasteners, for similar fasteners of general utility.

#### 56 Assisting spring:

This subclass is indented under subclass 51.1. Devices comprising springs employed in sofa beds to counterbalance the weight of moving parts and assist in opening and closing movements.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

164.1+, for counterbalance springs for upending bedsteads.

### **57.1** Hinge:

This subclass is indented under subclass 51.1. Device comprising a pivot connection specially employed in a sofa or other folding type of bed.

(1) Note. This subclass includes angle stops and angle-iron pivot joints.

#### SEE OR SEARCH CLASS:

16, Miscellaneous Hardware, subclasses 221+, for hinges of general utility. See the search notes thereunder for other classifications providing for specific applications.

### 57.2 Having anti-pivoting means:

This subclass is indented under subclass 57.1. Device comprising means to prevent accidental opening or accidental closing of the hinge.

## **Receptacle, drawer, or compartment:**

This subclass is indented under subclass 51.1. Devices comprising drawers, compartments, or swinging receptacles connected with, forming a part of, or inserted in sofa beds.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

2.1+, for sets of inclosure in combination furniture.

308, for drawers, etc., attached to or inserted in some part of bedsteads.

#### 59.1 Shiftable back or seat:

This subclass is indented under subclass 51.1. Device comprising a movable sofa seat or back which does not form a bed section.

- (1) Note. The movable seat or back may allow unfolding of the bed.
- (2) Note. This subclass includes devices connecting stuffed seats or backs for simultaneous shifting; also included are padded seats or backs which are movably connected to a sofa bed section so as to move with it.

SEE OR SEARCH THIS CLASS, SUBCLASS:

16, for unfolding bed sections.

#### 81.1 Invalid lift and transfer:

This subclass is indented under the class definition. Subject matter for lifting or transferring a patient from one part of the bed to another or from the bed to some other apparatus (into a wheelchair, bath, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

607+, for bed or support tiltable along a longitudinal axis.

#### SEE OR SEARCH CLASS:

- 4, Baths, Closets, Sinks, and Spittoons, subclass 480 for means to assist or help a disabled person use a receptacle-type dry closet.
- 135, Tent, Canopy, Umbrella, or Cane, subclass 67 for a walker.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 264+ for apparatus for hauling or hoisting a load including a driven device which pulls on or travels along a cable and wherein either the device or the cable is attached to the load.
- 280, Land Vehicles, subclass 87.021 for occupant pushed coaster.
- 294, Handling: Hand and Hoist-Line Implements, subclasses 67.1+ for hoist line attached to load supporting frame and subclasses 74+ for hoist-line slings.

- 297, Chairs and Seats, subclasses 5+ for occupant propelled walker or skater frame; subclasses 68+ for a chair having a relatively movable bottom, back-, leg-, or foot-rest interconnected with each other; subclasses 340+ for a seat bottom interconnected to move relative to a seat back; and subclasses 354.1+ for a seat back tiltable with respect to a seat bottom.
- 414, Material or Article Handling, subclass 921 for handicapped person handling.
- 482, Exercise Devices, subclasses 66+ for occupant propelled support frame having movement facilitating feature for foot travel.

### 83.1 With hoisting device:

This subclass is indented under subclass 81.1. Relocating means comprising a patient moving device associated with a bed and adapted to raise or reposition a body off of the bed or support.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

612, for auxiliary means to raise a portion of user above supporting surface.

## SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, subclasses 667+ for flush closet seat assist to raise user.

## 84.1 Attachable:

This subclass is indented under subclass 83.1. Hoisting device fixed to a bed by a temporary connection, such as a gripping-type apparatus.

# 85.1 Detached surrounding frame:

This subclass is indented under subclass 83.1. Hoisting device comprising a supporting framework above the bed and an attached stretcher-type patient holder or patient supporting device (e.g., sling, strap).

# SEE OR SEARCH CLASS:

212, Traversing Hoists, subclass 71 for overhead crane and subclasses 312+ for traveling bridge cranes.

### 86.1 Free traveling:

This subclass is indented under subclass 83.1. Hoisting device consisting of a transportable support movable along a floor or the ground.

#### SEE OR SEARCH CLASS:

280, Land Vehicles, subclass 250.1 for wheelchair type with propulsion means and subclass 304.1 for wheelchair-type attachments and accessories.

#### **87.1** Crane:

This subclass is indented under subclass 83.1. Hoisting device comprising a horizontal structural projection rotating about a vertical axis by which the patient may be moved.

#### SEE OR SEARCH CLASS:

- 4, Baths, Closets, Sinks, and Spittoons, subclasses 560.1+ for means for handling user into and out of a tub.
- 212, Traversing Hoists, subclasses 255+ for vertically swinging boom.

### 88.1 Winding hoists:

This subclass is indented under subclass 83.1. Hoisting device characterized by a plurality of narrow belts or a single broad piece of cloth passing under the patient and wrapped on rotatable rails.

#### SEE OR SEARCH CLASS:

- 242, Winding, Tensioning, or Guiding, subclasses 917+ for accommodating special material or article.
- 254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 278+ for plural drums or drum with plural distinct sections.

### 89.1 Stretcher bottom and sling:

This subclass is indented under subclass 81.1. Relocating means comprising structural members, creating a support, connected to a wide strap or matlike pad (including a seat).

SEE OR SEARCH THIS CLASS, SUB-CLASS:

625+, for a field stretcher.

#### SEE OR SEARCH CLASS:

294, Handling: Hand and Hoist-Line Implements, subclasses 67.1+ for hoist-line attached load supporting frame and subclasses 74+ for hoist-line slings.

#### 93.1 CRIB:

This subclass is indented under the class definition. Subject matter characterized by structure having high ends and side guard means for preventing an occupant, generally an infant, from falling out.

- (1) Note. Except in subclass 97, a crib denotes a small bed especially adapted for young children.
- (2) Note. Devices attached to or connected with either sofa beds or upending beds to convert them to a crib are proper for this subclass.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 2.1+, for cribs combined into a unitary article with some other article of furniture.
- 101+, for cradles (cribs supported for to-and-fro motion).
- 174+, for cribs, the sides guards of which are not modified for folding.
- 425+, for beds having side guards.
- 512, for beds having a peripheral screen.
- 513, for partitioned beds.
- 945, for inflatable baby supports that have inflatable peripheral guards.
- 946, for crib bumpers.

#### SEE OR SEARCH CLASS:

- 16, Miscellaneous Hardware, subclasses 18+ for casters, per se.
- 256, Fences, subclass 25, for pens, without a crib bottom, for confining children.
- 280, Land Vehicles, subclass 31 for a land vehicle convertible to a crib; subclass 79.2 for an occupant seating body, including a crib, supported upon nonsuspended axles (e.g., casters or simple bracketed wheels); or subclasses 647+ for a foldable vehicle designed

to carry an animate occupant in a specific position.

### 93.2 Convertible:

This subclass is indented under subclass 93.1. Device in which the crib is readily changed into a different article of furniture.

(1) Note. Except in subclass 97, a crib denotes a small bed especially adapted for young children.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

- 2.1+, for cribs combined into a unitary article with some other article of furniture
- 101+, for cradles (cribs supported for to-and-fro motion).
- 174+, for cribs, the sides guards of which are not modified for folding.
- 425+, for beds having side guards.
- 512, for beds having a peripheral screen.
- 513, for partitioned beds.

## SEE OR SEARCH CLASS:

- 256, Fences, subclass 25, for pens, without a crib bottom, for confining children.
- 280, Land Vehicles, subclass 31 for a land vehicle convertible to a crib or subclasses 647+ for a foldable vehicle designed to carry an animate object in a specific position.

## 94 Automobile:

This subclass is indented under subclass 93.1. Devices including hammocks, modified for attachment to the interior of automobiles or adapted to be fastened on the back of any seat.

#### 95 Bedstead attached:

This subclass is indented under subclass 93.1. Devices having means for attaching them to bedsteads, or means carried by the latter structures for the purpose of attaching a crib thereto.

# 96 Substowage:

This subclass is indented under subclass 95. Devices provided with bed-attached means by which they may be shoved under a bed when desired, particularly when not in use, or such means specifically.

#### 97 Closed:

This subclass is indented under subclass 93.1. Devices having a superstructure of substantially rigid frames continuing the framework of the bed into a complete inclosure, or networks other than canopies stretched over the top of such furniture specifically for keeping the occupant inclosed.

#### **98.1** Fabric:

This subclass is indented under subclass 93.1. Subject matter comprising cribs having side and end walls mainly constructed of knitted, woven or nonwoven cloth material.

- (1) Note. This subclass excludes devices made of fabric panels having a rigid frame.
- (2) Note. This subclass includes cribs employing fabric to permit folding and unfolding of the device.

# 98.2 Crossed legs:

This subclass is indented under subclass 98.1. Devices in which the crib is supported by plural elongated members that are pivotally connected intermediate their ends and may be alternatively rotated between collapsed and operable position.

# 98.3 Hammock type:

This subclass is indented under subclass 98.1. Fabric crib which is supported by elongated flexible strands that extend from the crib ends to anchor points which are more horizontally displaced than vertically displaced from the crib attachment points.

# 99.1 Folding:

This subclass is indented under subclass 93.1. Device which is comprised of sections or panels that may be interleaved or interdigitated to reduce the overall dimensions of the crib structure and make it more compact.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 95+. for cribs attached to bedsteads.
- 98.2, for fabric cribs having folding characteristics.
- 102, for folding cradles in which the rockers have foldable features.

174+, for devices wherein there is no modification of the structure for folding the crib sides, but the means for folding is analogous to that of a folding bed.

## 100 Movable guards:

This subclass is indented under subclass 93.1. Devices relating to crib or cradle sides or guards connected movably to the frame to open and give access to the interior.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

425+, for guards attachable to ordinary bedsteads.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 7+ for a seat having removable or foldable crib sides.

#### 101 CRADLES:

This subclass is indented under the class definition. Devices relating to cribs modified by supporting means, as rockers, pivots, or other supporting devices, to enable them to be given a moderate to-and-from motion.

 Note. Cribs having supporting means as set out in the definition of this subclass (101) are included in this and indented subclasses whether or not such means is a convertible or alternatively useful feature.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

2.1+, for cradles combined in a unitary article with some other article of furniture.

93.1+, for stationary cribs.

108+, for cradles combined with a rocking chair for rocking purposes.

127+, for supports of a broad character capable of use as swing or hammock supports.

# SEE OR SEARCH CLASS:

180, Motor Vehicles, subclass 166 for a wheeled infant carriage or crib provided with driven means for reciprocating it longitudinally.

601, Surgery: Kinesitherapy, subclasses 49+ for devices supporting the person for rapid oscillation, specifically for therapeutic purposes.

D6, Furnishings, subclass 15 for designs of cradles.

### 102 Folding:

This subclass is indented under subclass 101. Devices capable of reduction to compactness by folding or knocking down.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

98.1+, for cribs with bodies of fabric.

99.1+, for cribs not modified by folding devices for the rockers.

127+, for supports not folding with the cradle.

## 103 Link supported:

This subclass is indented under subclass 101. Cradles mounted for swaying on pairs of substantially parallel links.

# 104 Spring supported:

This subclass is indented under subclass 101. Cradles mounted for swaying on springs.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

210, for other bed structures mounted for limited spring movement.

#### 105 Rocker base:

This subclass is indented under subclass 101. Cradles mounted on rockers.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

107, for rockers simply attachable to a baby carriage for converting it to a cradle.

### SEE OR SEARCH CLASS:

280, Land Vehicles, subclass 31 for a land vehicle convertible to a crib; subclass 47.1 for a general utility land vehicle including body rocking through wheel rotation; subclasses 47.38+ for a stable, handle propelled general utility land vehicle including an occupant seating construction; or subclasses 647+ for a foldable vehicle designed

to carry an animate object in a specific position.

297, Chairs and Seats, subclasses 258.1+, for a rocker mounted chair or seat.

## 106 Throw-off rockers and locking devices:

This subclass is indented under subclass 105. Devices wherein the rockers are so attached to a crib that they may be thrown out of action without removal and locking devices to prevent swaying of the cradle.

### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 270.1+ for a rocker mounted chair having means to limit or immobilize the rocking motion.

### 107 Attachable rockers:

This subclass is indented under subclass 105. Devices wherein the rockers are attachable to crib bodies, carriages, and the like to convert them to cradles.

# 108 Rocking devices:

This subclass is indented under subclass 101. Devices such as treadles, attached rocking-chairs, cords, and pulleys, for actuating cradles.

## SEE OR SEARCH CLASS:

- 297, Chairs and Seats, subclasses 260.1+ for means to impart rocking motion to a rocking chair.
- 472, Amusement Devices, particularly subclasses 118+ for an amusement swing appropriate therefor.

## 109 Mechanical motors:

This subclass is indented under subclass 108. Devices comprising motor devices for the automatic actuation of cradles.

(1) Note. The motors themselves are under the appropriate classes according to the kind, as spring, electrical, weight, etc.

### SEE OR SEARCH CLASS:

601, Surgery: Kinesitherapy, subclasses 49+, 86, 90, 98, 115+, and 146 for body supported vibrator.

#### 110 COTS:

This subclass is indented under the class definition. Subject matter comprising leg-supported beds of light and easily-portable structure having a substantially flat sleeping surface and devoid of upholstery, back, ends, or significant head or foot boards.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

- 112+, for cots which are collapsible into a small compact bundle for easy transportation.
- 118+, for cots modified especially for use in connection with a vehicle, either inside or outside.
- 151+, for cots folding by lifting the ends while the center remains stationary on a stand.
- 154, for cots which fold to stand upright by lifting the center and bringing the ends together.
- 425+, for cots provided with handles and devices for carrying invalids.
- 600+, for cots modified for the special use of invalids.

## SEE OR SEARCH CLASS:

482, Exercise Devices, particularly subclasses 27+ for a gymnastic trampoline having similar structure.

#### 111 Sectional:

This subclass is indented under subclass 110. Cots characterized by sections, so that they may be folded or collapsed into a flat bundle of a size determined by the sections.

### 112 CAMP BEDS:

This subclass is indented under the class definition. Subject matter relating to easily-portable bed structures, characterized by collapsibility, by which the bed is made into a small compact bundle for easy transportation. If sectional, the sections are themselves collapsible.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

110+, for other easily portable bed structures.

### 113 Canopied:

This subclass is indented under subclass 112. Camp beds or cots provided with canopies or netting supports involved with the bed structure and requiring some significant change therein or folding with the bed structure.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 119, for devices in which the canopy is adapted to be secured to the outside of a vehicle to which the bed is attached.
- 413, for beds with mosquito nets and canopies and see the notes therewith.

#### 114 Knockdown:

This subclass is indented under subclass 112. Devices characterized by extensive separation into parts for close packing.

## 115 Lazy-tong supports:

This subclass is indented under subclass 112. Devices characterized by supports consisting of groups of lazy tongs.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

182, for lazy tong supports on extension bedsteads.

# 116 Transverse collapse:

This subclass is indented under subclass 112. Devices possessing integral side rails which in folding are brought side by side. The end rails may be detachable or folding and the legs folding or rigid.

#### 117 Sectional rails:

This subclass is indented under subclass 116. Devices having in addition sectional pivoted side rails and folding or detachable legs, the whole folding to a compact bundle of approximately the length of a section.

## 118 VEHICLE ATTACHED:

This subclass is indented under the class definition. Subject matter relating to light full-length structures of any type, mostly foldable, especially modified for use in connection with automobiles and similar vehicles, but requiring no significant structure change in the vehicle.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

- 12.1+, for sofa beds convertible from sofa seats.
- 94, for children's beds for such purposes.

## SEE OR SEARCH CLASS:

- 114, Ships, subclass 192 for beds involving self-leveling features.
- 296, Land Vehicles: Bodies and Tops, subclass 176 for such devices involving a modification of the vehicle body.

#### 119 Outside:

This subclass is indented under subclass 118. Devices adapted for use attached to the outside of the vehicle. They may possess an indivisible mosquito net or canopy.

### 120 HAMMOCKS:

This subclass is indented under the class definition. Subject matter relating to freely-suspended swinging devices adapted to support the body in prone position and frequently to conform to a considerable degree to the shape of the body.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

98.1, for high fabric inclosure to confine a person.

#### SEE OR SEARCH CLASS:

- 297, Chairs and Seats, subclasses 273+ for a seat suspended to swing by means of a hanger connected to or through a back- arm-, leg-, or footrest, the body supporting portion of which may conform to a shape of the body to a considerable degree.
- D6, Furnishings, subclass 53 for designs of hammocks.

### 121 With canopy:

This subclass is indented under subclass 120. Hammocks provided with a canopy attached to the hammock itself and having some particular modification adapting it to use with a hammock body.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

128, for structure carried by the support for the hammock.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclass 184.1 for chairs with a canopy.

#### 122 Fabric hammocks:

This subclass is indented under subclass 120. Hammock bodies made of textile material.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

98.1+, for devices of tube shape with high guard walls, especially for the use of children.

## 123 Spreaders:

This subclass is indented under subclass 122. Devices detachable for insertion in fabric hammocks near the ends to keep them spread.

#### 124 Couch hammocks:

This subclass is indented under subclass 120. Devices, of couch form, suspended to swing as a hammock. Distinguished from cradles by the absence of guards, permitting them to be used for seating purposes.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

101+, for cradles.

127+, for supporting frameworks for hammocks.

## 125 Adjustable back or windshield:

This subclass is indented under subclass 124. Devices characterized by a back or windshield adjustable to several use positions.

#### 126 Convertible to bedstead:

This subclass is indented under subclass 124. Devices provided with folding legs or support connecting devices by means of which the hammock may be supported rigidly and used as an ordinary bed.

### 127 Supports:

This subclass is indented under subclass 120. Devices comprising frameworks adapted to support a hammock of any type, a cradle, or a swing.

# 128 Hammock and canopy support:

This subclass is indented under subclass 127. Supports for the suspension of a hammock and the support of a canopy over it. The canopy or netting is carried by the support.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

121, for supports carried by the hammock itself.

130, for a netting thrown over a ridgepole and staked out.

#### SEE OR SEARCH CLASS:

135, Tent, Canopy, Umbrella, or Cane, subclasses 120.3 and 161 for detached supports.

# 129 Subsupport:

This subclass is indented under subclass 127. Supports, the connection between the end supports being underneath the hammock body.

# 130 Ends and ridgepole:

This subclass is indented under subclass 127. Supports, comprising end supports rigidly connected solely by an overhead connection, as a ridgepole.

## **BEDSTEADS:**

This subclass is indented under the class definition. Subject matter comprising well-defined head and foot boards, one or both of which extends markedly above the bed surface, and which are joined by a bed surface or by rails or other connections proper to support a bed surface, such as a mattress.

(1) Note. A bed bottom, either alone or with a bed surface, or other support for a bed surface such as a mattress or cushion can be found in subclasses 400+, indented hereunder, as an unprovided for subcombination of a bedstead.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

690+, for a mattress or cushion.

#### SEE OR SEARCH CLASS:

D6, Furnishings, subclasses 79+ for designs of bedsteads.

### 132 Three part:

This subclass is indented under subclass 131. Devices consisting of (1) rigid horizontal frame carrying or adapted to carry a bed bottom of any type and detachably connected to (2) head and (3) foot boards between which the frame forms the sole necessary connection.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

211+, for the three-part bed including tightening devices.

288+, for the connecting device itself.

## 133 Upending:

This subclass is indented under subclass 131. Devices which are changed from use to storage position by upending about a pivot on an axis transverse of the bed. In storage position the bed bottom is substantially vertical.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

43+, for devices having a seat in front over which the bed turns down.

53.1+. for headboards for such beds.

93.1+, for devices attached to or connected with upending beds to convert them to cribs.

159.1+, for cases.

162+, for stands.

170+, for devices for moving the bed after upending.

178+, for integral footboards folding over or under the bed.

310+, for folding or disappearing legs.

414, for canopies operated by movement of the bed.

### 134 Tumble over:

This subclass is indented under subclass 133. Devices which in storage position stand vertically without a separate pivotal supporting frame and for use are tumbled over to a hori-

zontal position. Includes those of sofa type having a seat at the front.

#### 135 Detachable:

This subclass is indented under subclass 133. Devices which when turned down are readily detached from the upending device and run anywhere desired for use.

#### 136 Pivoting:

This subclass is indented under subclass 133. Devices pivoted by fixed position pivots on a stand or case.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

26.1+, for sofa bed seat rotators.

101+, for cradles.

161, for wing front cases for beds of this type.

600+, for invalid beds.

## 137 Shifting fulcrum:

This subclass is indented under subclass 133. Devices which substantially changes its position with respect to either the support or bed bottom during the movement. The bed when upended stands with the inner or head end down.

## 138 Successive pivoting:

This subclass is indented under subclass 137. Devices which move to vertical position by pivoting about several fixed points in succession. Includes rocker bases mounted on a frame or case and single struts having a rocking or cogged base.

# 139 Single struts:

This subclass is indented under subclass 137. Devices pivoted on the upper end of a pivoted strut and having a degree of freedom requiring manual guidance to vertical position.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

138, for single struts having a rocker or cogged base.

### 140 Strut and guide:

This subclass is indented under subclass 137. Devices pivoted on the upper end of a pivoted strut and constrained in upending by a guide near the head end.

## 141 Suspending link and guide:

This subclass is indented under subclass 137. Devices pivoted on the lower end of a pivotally-supported link and constrained in upending by sliding contact with a guide near the head end.

#### 142 Double links:

This subclass is indented under subclass 137. Devices pivoted on the outer ends of paired pivoted links or struts, two on each side.

# 143 Single guide:

This subclass is indented under subclass 137. Devices moving to vertical position on a single guide with which they have rolling or sliding contact and requiring additional manual guidance.

## 144 Double guide:

This subclass is indented under subclass 137. Devices constrained in turning to vertical position by sliding or rolling contact of lugs with two guides on each side.

# 145 Traveling foot:

This subclass is indented under subclass 133. Devices moving on a fixed pivot or equivalent at the head end and linked at the foot end to a following footboard or other support which travels along the floor toward the head end as the bed is turned to vertical position.

## 146 Sliding frame on upending carrier:

This subclass is indented under subclass 133. Devices mounted on a pivot upending carrier on which the bed frame slides either before or during the turning movement.

# 147 Sliding and pivoted frame:

This subclass is indented under subclass 133. Devices which move by vertical rising movement of the head accompanied by inward horizontal movement of the foot, the surface of the bed being outward when vertical and the head or inner end of the bed at the top.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

47+, for similar movements in sofa beds, usually sidewise of the frame.

## 148 Pivoted frame on collapsing head and foot:

This subclass is indented under subclass 133. Devices in which the bed bottom is pivoted at one side of high head and foot boards which collapse in width to stand compactly in alignment with the head and foot of the frame when upended.

#### 149 Sectional:

This subclass is indented under subclass 133. Devices in which the bottom is composed of sections which in collapsed position stand vertically or in which the major portion of the bed bottom stands vertically.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

16, for vertical unfolding sections of sofa

169, for devices in which the bottom itself is a fabric detached from the rails and hangs suspended as the rail sections upend.

# 150.1 Upending major section:

This subclass is indented under subclass 149. Device having a long bottom section which turns up at right angles to a short, fixed bottom section in a stand or case; alternately, a long upending bottom section is attached to a short movable bottom section at the head or foot.

### 151 Outfolding sides:

This subclass is indented under subclass 149. Devices, having two sections, at the head and foot, respectively, pivoted to unfold outwardly and downwardly from the center.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

4, for devices in case the end boards at head and foot form a distinct table top in folded condition.

### 152 Fixed pivots:

This subclass is indented under subclass 151. Devices the head and foot each having a fixed pivot on a central stand. There may be a fixed case connected to one section, so that as the bed folds the central stand moves toward it to house the folded bed.

### Moving pivots:

This subclass is indented under subclass 151. Devices, the head and foot each connected to a central stand by means of moving pivots.

### 154 Falling center:

This subclass is indented under subclass 149. Devices in which the bed bottom consists of two main sections pivoted together at the center and pivoted to high integral head and foot boards or to moving stands or supports, so that as the center falls in unfolding the head and foot ends separate from each other.

(1) Note. Cots or any folding beds of this type are in this subclass.

### 155 Pivoted inner with outfolding foot section:

This subclass is indented under subclass 149. Devices in which the inner or head section is pivoted to turn down and out from a support and carries folded upon it the foot section, which is afterward unfolded.

## 156 Laterally increasing:

This subclass is indented under subclass 149. Devices in which the upending section is laterally increased after turning down by sections unfolding or extending laterally from it.

# 157 Telescoping:

This subclass is indented under subclass 149. Devices in which the upending section is longitudinally increased by telescoping during or after the unfolding.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

184, for extension side rails.

### 158 Flexible upward sliding:

This subclass is indented under subclass 149. Devices in which the bed bottom is continuous and flexible or composed of hinged-sections, so that, in folding, the head, followed by the remainder of the bed, slides upward into the support or case.

#### 159.1 Case:

This subclass is indented under subclass 133. Device comprising the stand to which the bottom sections of the bed are pivoted so that when upended the bed may be covered.

(1) Note. The bottom section may carry a panel that forms part of a closure when the bed is upended.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 2.1+, for cases which are combined with other articles of furniture.
- 16, and 43+, for a case having in front of it a seat, fixed or movable, over which the bed turns down.
- 151, through 154, for head and foot boards which together form the case.

#### 160 Front panels:

This subclass is indented under subclass 159.1. Devices comprising panels on the bottom of a bed to conceal it when upended. Includes sectional panels, the method of connecting the panel to the bed or case, and devices for mounting the bed upon the panel.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

54, for front boards of sofa beds.

#### Wing fronts:

This subclass is indented under subclass 159.1. Devices in which the bed bottom is pivoted longitudinally at one side of high head and foot boards, which after the bottom is turned up are folded in like a gate to form a closure for the bottom of the bed. The head and foot boards may be entire or sectional vertically and may be of open or closed pattern.

### **162 Stands:**

This subclass is indented under subclass 133. Devices comprising open work or low supports functioning as a support for the bed in use or storage position, but not forming a closure for concealment or protection.

#### 163 Screen and curtain:

This subclass is indented under subclass 133. Devices comprising modifications of the bed bottom, stand, or case to furnish a movable screen or curtain for some part of a bed of this type other than a case.

### 164.1 Counterbalance spring:

This subclass is indented under subclass 133. Device comprising spring biasing means associated with an upendable section which counteracts a portion of the section's weight and assists or cushions the upending operation.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

56, for assisting springs for sofa beds.

#### 165 Tension bottom:

This subclass is indented under subclass 164.1. Devices comprising spring fabric bottoms so connected that opening the bed increases the tension on the bottom cushioning the fall, and, conversely, assisting in closing the bed.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

169, for structures in which the suspended bottom is usually placed under tension toward the end of the opening movement.

#### 166.1 Counterbalance weight:

This subclass is indented under subclass 133. Device comprising a mass of material arranged to counteract some portion of an upendable section's weight and assist in the upending operation.

(1) Note. This subclass also includes devices which have some portion of the case or stand moved against gravity as the upended section is lowered.

## 166.2 Having cord and pulley:

This subclass is indented under subclass 133. Device comprising a rope, cable, or the like, which passes over one or more sheaves and through which the weight of material acts to counteract some portion of an upendable section's weight and assist in the upending operation.

(1) Note. This subclass also includes devices which have some portion of the case or stand moved against gravity as the upended section is lowered.

#### **167** Locks:

This subclass is indented under subclass 133. Devices comprising locks not of general use, for the purpose of holding the bed closed or for preventing premature or undesired closure.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

55.1. for locks for sofa beds.

# 168 Base props:

This subclass is indented under subclass 133. Devices comprising specialized props to prevent the support from toppling over as the bed descends, especially when actuated by the motion of the bed.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

164.1+, for devices spring connected so that the spring acts as a counterbalance.

### 169 Suspended bottoms:

This subclass is indented under subclass 133. Devices provided with a fabric bottom supported at the ends and having, if any, a very loose connection with the side rails, so that the bottom hangs as a bag when the bed is folded.

(1) Note. Search should be made here particularly when there are specially-actuated tension devices to stretch the fabric as the bed is opened. If no modifications are introduced by thus suspending the bottom and it might equally well be connected laterally to the sections, search should be made in the type defined by the mode of arranging and folding the sections.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 15, for sofa beds having suspended bottoms.
- 149, through 158, for the folding structure of the rails.
- 165, for devices which tension a fabric bed bottom as the bed is opened.

#### 170 Shifters:

This subclass is indented under subclass 133. Devices connected with the support of the bed to carry, guide, or limit the motion of the

upended bed in its movement from one location to another, as in and out of a storage closet. May include a truck forming a part of the bed support or stand.

#### 171 Door beds:

This subclass is indented under subclass 170. Devices carried upon one side of a door or its equivalent to be shifted from use to storage positions by the movements of the door.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

160, for structure in which the door is simply the transversely pivoted front panel of a case.

#### 172 Jamb rounders:

This subclass is indented under subclass 170. Devices exclusive of trucks connecting the support for the upending bed with respect to a doorway in such a manner that the folded bed may be guided from a use position in front and at one side of a door jamb or the like to a storage position around behind, and to one side of the jamb.

# 173 Rotary bases:

This subclass is indented under subclass 170. Devices comprising fixed base supports intended to rotate, when folded, on a vertical axis near a wall for the purpose of thrusting the folded bed out from the wall during the rotation and bringing it back toward the end of the 180° movement to close proximity to the wall, so that the bed when either up or down may be close to the wall.

# 174 Folding:

This subclass is indented under subclass 131. Bedsteads possessing distinct and significant head and foot boards and collapsing by folding (excluding extension) to smaller size, in which they are not usable as beds. Includes cribs when the side guards are not modified for folding.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

181+, for extension characteristic, per se.

#### SEE OR SEARCH CLASS:

108, Horizontally Supported Planar Surfaces, subclasses 162+ for a horizontal planar surface of general utility which folds, and subclass 115+ for a surface supported by folding legs.

#### 175 Extension:

This subclass is indented under subclass 174. Devices increasing from compact storage form both by unfolding and extension.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

115, for lazy-tong supports on camp beds.

182, for lazy-tong bedsteads which usually collapse entirely or are extendible to form beds of different sizes.

## 176.1 Transverse collapse:

This subclass is indented under subclass 174. Device in which the head and foot boards are mounted such that they may be collapsed in such fashion as to bring the side rails together.

- (1) Note. The bed bottom may be of any type and disposed in any manner.
- (2) Note. This subclass includes bedsteads in which the rails, head board, and foot board are pivoted together to collapse diagonally.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

148, 181 and 183, for other collapsing head or foot boards.

### 177 Horizontal infolding side rails:

This subclass is indented under subclass 174. Devices in which the side rails are made in pivoted sections which fold inwardly, bringing the head and foot boards into proximity.

SEE OR SEARCH THIS CLASS, SUBCLASS:

112+, for camp beds.

# 178 Folding head and foot:

This subclass is indented under subclass 174. Devices in which the head and foot boards are continuous to the floor and linked or pivoted to the head and foot of the bed, respectively, so

that they may be folded over or under the bed bottom to lie parallel thereto.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

53.1+, for headboard and footboard structure sofa beds.

### 179 Folding legs and ends:

This subclass is indented under subclass 178. Devices possessing head and foot boards pivoted above the bed bottom to fold down parallel to it and legs pivoted below the bottom to fold up under and parallel to it independently of the head and foot boards.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

53.1+, for the headboards.

310+, for the legs.

### 180 Cofolding legs and ends:

This subclass is indented under subclass 179. Devices wherein the legs are operatively connected with their respective head or foot boards, so as to fold simultaneously.

### 181 Extension:

This subclass is indented under subclass 131. Bedsteads which when contracted always present a bed surface, and possess an expansion in the nature of a size adjustment or increase from half to full length or from half to three-quarters or full width by spreading out sections.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

17+, for devices wherein the bed when contracted is a couch, settee, or sofa.

### 182 Lazy tongs:

This subclass is indented under subclass 181. Devices in which the connections between the head and foot boards are collapsible and extensible lazy tongs or the head and foot boards themselves are extensible by lazy long constructions.

#### 183 Extensible headboards:

This subclass is indented under subclass 181. Devices characterized by headboards and footboards which collapse to bring the side rails

nearer together or expand to form supports for accessory sections.

### 184 Extension side rails:

This subclass is indented under subclass 181. Devices extending in length by telescoping side rails, including any sort of slidable-interlocked rails.

#### 185 Lateral sections:

This subclass is indented under subclass 181. Devices possessing one or more accessory sections which may be unfolded or drawn out laterally to extend the bed bottom from narrow to full width and supported on legs or the like without affecting the head and foot boards.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

49, and 50, for accessory sections pendant at the side.

#### **186.1** Surface:

This subclass is indented under subclass 400. Device wherein the support surface comprises a thin flat bottom structure composed either of assembled units connected together or of one continuous material; the structure being a substantially planar member which is so flexible as to require marginal tension for its support.

(1) Note. Wire fabrics are proper for this class (5) only when there is special marginal modification to adapt the wire fabric for connection to a frame or when the fabric is otherwise specially adapted for use as a bed bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

199, for arrangements of horizontal springs to afford end tension and connect the fabric to a frame.

### SEE OR SEARCH CLASS:

- 140, Wireworking, subclass 92.5, for devices making marginal portions by the repeated intercoiling of helices to form "cords".
- 245, Wire Fabric and Structure, for wire fabrics, broadly

### 187 Canvas:

This subclass is indented under subclass 186.1. Devices of canvas, including binding, fastening, connecting, and reinforcing means, especially adapted for soft textile bottoms rather than metallic ones.

### 188 Linkages:

This subclass is indented under subclass 186.1. Devices composed of units self-linked to form a continuous web of a parallel chains transversely connected or of uniformly dispersed rings or plates connected by links.

### 189 Continuous spring elements:

This subclass is indented under subclass 186.1. Devices constituted by continuous elements distorted to give them resilience running from end to end or side to side and free or interconnected.

#### 190 Cables and cords:

This subclass is indented under subclass 186.1. Devices constituted by straight free or interconnected cables running from end to end or by continuous cord laced back and forth.

## 191 Thin strips:

This subclass is indented under subclass 186.1. Devices formed by thin flat strips of resilient material, free or interconnected and having flexibility sufficient to require end tension for their support.

SEE OR SEARCH THIS CLASS, SUBCLASS:

236.1+, for rigid slats.

# 192 Edging, midribs and center strips:

This subclass is indented under subclass 186.1. Devices comprising edgings and midribs which are thickening of the fabric itself or modifications along the edges or the center for the purpose usually of strengthening the fabric at those points or making a smooth guard edge; or center strips which are changes in the nature of the fabric along a central line for the purpose of introducing some degree of independence between the two halves of the surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

193, for high edge guards.

226+, for separate elements inserted in or near the edge of the fabric to strengthen it.

#### 193 Guards:

This subclass is indented under subclass 186.1. Devices comprising vertically arranged devices at the edge of any type of bed bottom for the purpose of retaining a stuffed mattress in place when the bed is in use position.

### 194 Binding and fastening:

This subclass is indented under subclass 131. Devices for binding the raw ends of elastic, fabricated bottoms and for connecting them to the rails of the frame.

## 195 Folding strips:

This subclass is indented under subclass 194. Devices comprising strips folded or compressed upon and inclosing the raw edges at the ends of the fabric.

## 196 Clamping strip:

This subclass is indented under subclass 194. Devices in which the raw end of the fabric is fastened to an end rail by a strip clamped upon it.

## 197 Groove and strip:

This subclass is indented under subclass 194. Devices in which the edge of the fabric is held in a groove in an end rail by an inserted wedging strip.

### 198 Slit tube:

This subclass is indented under subclass 194. Devices having end rails which are tubular and slotted for receiving the end of the fabric, which is retained therein by compression, casting, etc.

# 199 Marginal spring connections and limiting springs:

This subclass is indented under subclass 194. Devices having horizontally arranged springs on the edge of a fabric bottom for giving marginal supporting tension and special limiting springs for such use provided with stop or limiting means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

232, and 233, for other marginal spring constructions.

#### **200.1** Frame:

This subclass is indented under subclass 400. Device wherein the rigid frame provides peripheral support for an elastic fabric surface used as a bed bottom.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

132, for a frame combined with head and foot boards.

#### 201 Knockdown:

This subclass is indented under subclass 200.1. Devices constructed so as to be quickly separable into elementary parts.

# 202 Sectional folding or extensible:

Devices under 200.1 made in two or more separate sections. The sections may fold or be extensible.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

57.1+, for details of sofa bed hinges. 250, for folding type spring bottoms.

#### 203 Braces:

This subclass is indented under subclass 200.1. Devices comprising braces to prevent deformation of the frames under the tension of the fabricated surface.

# 204 Dropped-truss side rails:

This subclass is indented under subclass 200.1. Devices in which the side rail of the frame is in the form of a dropped truss, the upturned ends of the truss taking the place of a riser or corner iron.

SEE OR SEARCH THIS CLASS, SUBCLASS:

51.1+, for similar structure in sofa beds.

#### 205 Corner risers:

This subclass is indented under subclass 200.1. Devices comprising substantially vertical joining elements connecting the ends of side rails to the ends of end rails of fabric bed-bottom

frames designed to elevate the end rails above the side rails. Includes risers modified to accommodate or include a spring to give a resilient support to the fabric frame on the bedstead.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

204, 209, 210, and 225.1, for other riser and side rail constructions.

### 206 Stamped metal:

This subclass is indented under subclass 205. Devices made by stamping or pressing metal blanks to desired shape.

## Frame hangers, supports and retainers:

This subclass is indented under subclass 131. Devices, and not otherwise classified on any part of frame or bedstead for the purpose of supporting or holding in place on the bedstead any movable bed-bottom frame.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

236.1, for slats which may also serve as a bed bottom.

## 208 Rigid frame extension supports:

This subclass is indented under subclass 207. Devices comprising lugs, hooks, or the like rigidly connected to a bed-bottom frame for supporting it on a bedstead.

#### 209 Shiftable on frame riser:

This subclass is indented under subclass 207. Devices comprising hangers shiftably mounted on the bed-bottom frame or on the corner riser for adjustment or support or compact folding of the frame.

### 210 Spring:

This subclass is indented under subclass 207. Devices comprising springs arranged between some part of a bedstead and a bed-bottom frame and sometimes requiring some modification of the former for giving a resilient support to the frame itself as distinguished from the surface of the bed bottom.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

104, for structure where the purpose of which is to support a bed for free swaying.

205+, for corner risers.

232, for yielding rails.

244, for rigid slat frame tops.

#### 211 Tighteners:

This subclass is indented under subclass 131. Devices permanently connected to a bed-bottom frame or bedstead for progressive tightening adjustment of an elastic fabric bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

187, for tightening devices for bed bottoms specific to canvas.

#### SEE OR SEARCH CLASS:

140, Wireworking, subclass 110 for machines for giving initial stretch during assembly of fabric and frames and for frame-attaching devices for securing wire-mattress fabric to bed frames.

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 199+ for detachable implements or apparatus for tensioning flexible material.

### 212 Cord take-up:

This subclass is indented under subclass 211. Devices to take up slack in a cord and tension the bed bottom particularly for bed bottoms composed of a continuous cord.

#### 213 Lever and screw:

This subclass is indented under subclass 211. Devices comprising screw-actuated levers operating to take up fabric slack, or other combinations of screw and lever for this purpose.

## 214 Lever:

This subclass is indented under subclass 211. Devices comprising levers operating to tighten the fabric.

SEE OR SEARCH THIS CLASS, SUBCLASS:

213, for screw actuated levers.

### 215 Depression self-tightener:

This subclass is indented under subclass 211. Devices comprising frame structures in which some or all of the rails attached to the fabric are intended to be depressed and spread farther apart under the weight of the occupant, thus stretching the fabric.

#### 216 Roller:

This subclass is indented under subclass 211. Devices in which the fabric or extensions therefrom are rolled up on a roller coextensive with the frame.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

212, for short rollers for cord take-up.

#### 217 Rolling bedstead rails:

This subclass is indented under subclass 216. Devices in which the side or end rails, or both, of the bedstead act as tightening fabric rollers (no other fabric frame being employed).

## 218 Riser mounting:

This subclass is indented under subclass 216. Devices in which the rollers are mounted on risers, bringing the fabric some distance above the side rails.

### 219 Attachable:

This subclass is indented under subclass 216. Devices in which the rollers are attachable to convert an ordinary bedstead or bed-bottom frame to a roller tightener frame.

### 220 Screw:

This subclass is indented under subclass 211. Devices comprising screw devices on the fabric frames to increase the tension on the fabric.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

213, for screw actuated levers.

# 221 Attachable:

This subclass is indented under subclass 220. Devices attachable to an ordinary bed-bottom frame or bedstead without significant modification to the latter.

#### 222 Extensible rods or trusses:

This subclass is indented under subclass 220. Devices comprising threaded connecting rods or trusses interposed between fabric carrying rails and adapted by rotating the rod or by screw extending it (as by a turnbuckle) to separate the carrying rails.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

217, for fabric wound upon the rails.

### 223 Individual element:

This subclass is indented under subclass 220. Devices arranged in connection with the fabric to tighten some section, portion, or element of it independently of others.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

216+, for sectional rollers.

### 224 Sliding riser:

This subclass is indented under subclass 220. Devices in which the fabric rails are carried on supporting rails by corner risers which by means of screws are forced to slide along the supporting rails.

## 225.1 Sliding end rail:

This subclass is indented under subclass 220. Device comprising a fabric-carrying rail translatable on a riser which carries screw means to adjust the position of the rail for tensioning or wherein the rail rests directly upon a side rail and is screw adjustable therealong.

## 226 Reinforcers:

This subclass is indented under subclass 131. Devices accessory devices, not themselves constituting a part of elastic fabric bed bottoms, for reinforcing or preventing sag in limited portions thereof and operating directly upon such portion.

SEE OR SEARCH THIS CLASS, SUBCLASS:

230+, for bed bottoms of fabric and springs, where supporting springs are uniformly dispersed under the fabric.

### 227 Cable systems:

This subclass is indented under subclass 226. Devices comprising a plurality of cables or a back-and-forth cable forming an interconnected coarse web arranged beneath or inserted in the fabric.

### 228 Edge spreaders:

This subclass is indented under subclass 226. Devices connected with the fabric to spread the edges of it and keep it distended to a maximum width.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

261, and 262, for devices used in spring bottoms to prevent distortion of the springs.

### 229 Subcoils:

This subclass is indented under subclass 226. Devices comprising localized groups of vertically-coiled springs arranged under the fabric.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

230+, for fabrics and springs.

## 230 Of fabrics and springs:

This subclass is indented under subclass 131. Devices comprising bed bottoms in which the body or mattress supporting surface is a fabric complete in itself supported by springs either arranged to give support by exerting marginal tension or arranged beneath the fabric, or both.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 186.1+, for the fabric structure itself. Mere arrangements of horizontal helical margin connectors are not sufficient to remove the bottom from those subclasses.
- 199, for special arrangements of such helical margin connectors.
- 229, for subcoils and reinforced localized parts of a fabric bed bottom.
- 249+, for sectional and collapsible frames for springs.
- 267+, for an incomplete or coarse fabric dispersed over coil springs consisting, for example, of guys primarily to connect together the top coils.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 452.16+ for a spring bottom or back in which the springs are covered with upholstery.

## 231 Underslung spring supports:

This subclass is indented under subclass 230. Devices having groups of springs slung resiliently or suspended hammock-wise under the fabric bottom to give resilient support to the median portion or whole extent of the fabric.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

229, for coil-spring reinforces not resiliently mounted and merely local in their action or freely shiftable.

## 232 Yielding rail:

This subclass is indented under subclass 230. Devices having fabric-carrying rails which are spring mounted to yield downwardly or inwardly under weight on the fabric, allowing it to sag.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

210, for a fabric frame which is unitary and supplied with extraneous springs to support it on a bed-stead.

### 233 Marginal spring tension:

This subclass is indented under subclass 230. Devices arranged to exert outward marginal pull upon the fabric and allow sag under weight. Frequently the fabric passes over rollers to attaching springs beneath.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

199, for marginal spring connections in fabricated elastic flats.

234, for leaf spring supports.

# 234 Leaf-spring supports:

This subclass is indented under subclass 230. Devices with leaf springs or their equivalent forms attached directly to the fabric elements at the margin, allowing local sag.

# 235 Connecting fabric to tops of coil springs:

This subclass is indented under subclass 230. Devices by which complete fabrics are connected to the top coils of supporting springs.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

258, for details of saddles to which a fabric may be attached.

#### **236.1** Of slats:

This subclass is indented under subclass 400. Device wherein the support surface is bed bottoms formed of systems of straight elongated resilient members which have no auxiliary spring supports and which are sufficiently rigid as to require no end tension.

- (1) Note. This subclass accepts systems of slats in which the slats are themselves extensible.
- (2) Note. The bed bottom may support bedding directly or it may be used to support other types of bed bottoms.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

191, for flexible flat strips.

237, for bowed spring slats and other types at springs generally resembling slats.

247, for nonspiral spring fabrics.

255, for nonspiral spring elements.

### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 452.1+, for a slotted bottom or back.

# 237 Bowed spring slats:

This subclass is indented under subclass 236.1. Devices possessing considerable initial camber, giving a spring effect. Slats of this type having auxiliary spring supports remain in this subclass.

# 238 Hangers and engagers:

This subclass is indented under subclass 236.1. Devices to support or retain individual slats in position.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

207+, for retaining frames as a whole.

305, for the device which has also the function of preventing spread of bedstead side rails, and particularly when applied to very few slats of a group.

### 239 Of slats and springs:

This subclass is indented under subclass 131. Devices comprising bed bottoms in which the supporting surface is composed of slats resiliently supported.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

- 191, for flexible thin strips requiring end tension.
- 237, for bowed spring slats.
- 246+, for flexible means for uniting spring top coils, particularly subclasses 267+ and 275.
- 263+, for slats or bars used as bottom supports for springs.

#### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 592 for metallic stock which is helical or has a helical component.

## 240 Collapsible or extensible frameworks:

This subclass is indented under subclass 239. Devices which may be compactly collapsed for transportation, as by rolling, or extended to accommodate varying beds.

### 241 Independent slats with spring supports:

This subclass is indented under subclass 239. Devices in which the slats are resiliently mounted for some degree of independent movement on springs.

## 242 With leaf springs:

This subclass is indented under subclass 241. Devices in which the individual slats are mounted on leaf springs.

## 243 With subcoil springs:

This subclass is indented under subclass 241. Devices in which the individual slats are mounted on coil springs.

# 244 Rigid slat frame tops:

This subclass is indented under subclass 239. Devices in which the top frame consists of a rigid system of slats supported by springs scattered beneath it.

## 245 Attaching slats to spring coils:

This subclass is indented under subclass 239. Devices for attaching the slats to the upper coils of supporting springs, which are applicable also to large bottom coils.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

263+, for bottom turns of downward diminishing springs attached to slats.

## 246 Of springs:

This subclass is indented under subclass 131. Devices comprising bed bottoms in which the supporting surface consists of the upper parts of springs or these parts and connections between them.

(1) Note. The three common types of vertical spiral springs used as supporting means in such bottoms are hour-glass, conical, and cylindrical, and subclasses 248-254 and 256-277 are confined to such springs. Other types of springs occasionally used with their framing and connections are in subclasses 247 and 255.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 230+, for connecting means which is a complete fabric.
- 239+, for connecting means which consists of rigid slats.
- 654.1, for springs pillows.
- 716+, for springs employed in spring mattresses.

## SEE OR SEARCH CLASS:

- 267, Spring Devices, subclasses 80+ for a spring panel of general utility.
- 297, Chairs and Seats, subclasses 285+ for a resiliently supported seat back, and subclasses 452.16+ for upholstered seat components.

428, Stock Material or Miscellaneous Articles, subclass 592 for metallic stock which is helical or has a helical component.

### Nonspiral springs only:

This subclass is indented under subclass 246. Devices of unusual and nonspiral forms only coordinated into complete bed bottoms.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

258, for similar structure in top saddles.

### 248 Spiral springs only:

This subclass is indented under subclass 246. Devices comprising arrangements of spiral springs forms only and the bounding and confining assemblages of such spring units into a spring bed bottom as a whole. Includes also special arrangements of the spring units, as of higher, deeper, or stronger springs in certain localities.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 189, 230+, 231, 239+, and 716+, for other spiral spring features.
- 260, for special margin rims and means of connecting springs to them.
- 263+, for means of supporting the bottoms of springs.

### 249 Frames, sectional and collapsible:

This subclass is indented under subclass 248. Devices comprising framed made in sections or collapsible for compact transportation, as by rolling up. The sections may be made so as to be separated and rearranged. Includes also such forms of fabric and springs.

#### 250 Folding:

This subclass is indented under subclass 249. Devices hinged together for folding flat upon each other.

# 251 Variable width or length:

This subclass is indented under subclass 249. Devices variable in width or length to adapt them to variations in the size of the bed.

#### 252 Intermediate frames and connections:

This subclass is indented under subclass 248. Devices comprising horizontal frames or connections interposed between the upper and lower surfaces of spring assemblages forming "double-deck" springs or connecting together the waists or central parts of the spring units.

### With accessory spring shock absorbers:

This subclass is indented under subclass 248. Devices comprising additional resilient members in a spring assemblage called into play in event of unusual depression, or special arrangements by which the ordinarily latent resilience of certain regions is called upon to withstand heavy shock.

#### **254** Elements:

This subclass is indented under subclass 246. Devices relating to elements of spring bed bottoms.

#### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 592 for metallic stock which is helical or has a helical component.

## 255 Springs, nonspiral:

This subclass is indented under subclass 254. Devices comprising nonspiral spring forms of unusual type.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

199, for helical springs having limiting stops to prevent over-extension and specially adapted for bed use.

258, for similar structure in top saddles.

### SEE OR SEARCH CLASS:

267, Spring Devices, for various springs of general use.

# 256 Springs, spiral:

This subclass is indented under subclass 254. Devices comprising spiral units having some peculiarities of structure of conformation, as twisting, doubling, angularity, varying thickness of wire, other than round, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

268, for twin or continuous springs.

#### 257 Top-coil unions:

This subclass is indented under subclass 254. Devices, for means of connecting the end of the top coil of a spiral spring to the adjacent part of a lower turn of the same spring to form a closed top loop.

## 258 Top saddles:

This subclass is indented under subclass 254. Devices for caps of closed or open work of about the area of one spring unit resiliently supported on springs below. Usually is in the form of a disk or button riding on top, but may have a vertical guide stem supported by any kind of spring.

### 259.1 Connecting clip (e.g., plate or wire):

This subclass is indented under subclass 254. Device comprising a short strip of plate material or wire so formed as to hold or link together the various parts of a spring bed bottom.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

260, for margin rims and connections.

270, for top connecting links.

### 260 Margin rims and connections:

This subclass is indented under subclass 254. Devices comprising rods or strips bounding the spring assemblage at the top and special means of connecting the adjacent spring units to it.

### **261** Restrainers and limiters:

This subclass is indented under subclass 254. Devices to prevent distortion of the springs, to prevent undue expansion after sudden load release, or to keep the springs under a degree of compression.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

253, for spiral springs with accessory spring shock absorbers.

262, for upper frame braces.

# 262 Lateral upper-frame braces:

This subclass is indented under subclass 254. Devices connecting the upper frame or rim strip of spring assemblages with some lower part of the bed bottom to prevent lateral displacement of the rim under load.

#### **Bottom spring support:**

This subclass is indented under subclass 254. Devices comprising supports extending across the frame in a spring assemblage for the diminished bottoms of the spring units.

- (1) Note. When the springs do not diminish at the bottom, as in hour-glass or cylindrical forms, the bottom coils may be supported in the same manner as the top coils are connected, and search for such supports should be made in subclasses involving topcoil connections.
- (2) Note. These subclasses include the form of the support, its connection to the frame, and the method of connecting the spring unit to it.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

248, for arrangements of the supports with respect to each other. Also search subclasses 235 and 267+.

#### 264.1 Bars:

This subclass is indented under subclass 263. Device in which the supports are elongated members composed of wood or metal.

SEE OR SEARCH THIS CLASS, SUBCLASS:

245, for attaching broad coils to slats.

#### 265 Bar and wire:

This subclass is indented under subclass 263. Devices in which the supports are bars of any kind combined with cross or parallel wires.

# **266** Wire:

This subclass is indented under subclass 263. Devices in which the supports are wires.

SEE OR SEARCH THIS CLASS, SUBCLASS:

235, for top coils as fabric connections.

### **Top connections:**

This subclass is indented under subclass 254. Devices relating to connections between the top coil of adjacent units and the rim strip, so that the top of the assemblage is made into a connected whole.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

230+, for connecting means which is a complete fabric.

260, for connections between rim strips and springs adjacent thereto.

263+, for bottom spring supports.

### **268** Twin and continuous springs:

This subclass is indented under subclass 267. Devices in which twin springs are vertical coil springs made in pairs, of one continuous wire, the wire usually passing from the top of one spring to the top of the other. Continuous springs are similar, but the method is extended to larger groups or to the whole number of springs comprising the bottom. All bed springs of these types are included in this subclass with their connection, etc.

## **269** Helical connectors:

This subclass is indented under subclass 267. Devices helical springs used as the top connections and also as rim strips.

### 270 Links or clips:

This subclass is indented under subclass 267. Devices comprising systems of link or clip connections.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

259.1, for links or clips specifically, as distinguished from systematic arrangements.

#### 271 Extended coils:

This subclass is indented under subclass 267. Devices formed by interlacing the top coils of adjacent springs or by giving the top coil an extension which engages a coil of an adjacent spring.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

272, for this structure with guys.

# 272 Top coil extended and guy:

This subclass is indented under subclass 267. Devices comprising combinations of guys extending from one side or end of the top frame to the other engaged with extensions from the top coils of the springs.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

271, for this structure without guys.

## 273 Guy with extended loops:

This subclass is indented under subclass 267. Devices comprising direct guy wires crossing the top provided with integral loops and engaging adjacent springs or engaging the loops of similar guys engaging adjacent rows of springs.

## 274 Zigzag guy:

This subclass is indented under subclass 267. Devices comprising guys crossing the frame between the rows of springs, but alternately approaching and receding from the row.

# 275 Central cross strips and wires:

This subclass is indented under subclass 267. Devices comprising systems of strips or wires crossing the centers of springs in rows.

## 276 Parallel cross groups:

This subclass is indented under subclass 267. Devices comprising groups of parallel guys crossing the frame and engaging the tops of the springs.

## **Two and one cross elements:**

This subclass is indented under subclass 267. Devices comprising systems of two sets or relatively straight spring-attaching wires, crossing the tops of springs arranged in rows, one set in pairs providing two guys for each row of springs and another crossing set providing one guy for each cross row of springs.

# 278 Equalizers:

This subclass is indented under subclass 131. Devices comprising accessory devices applied to any type of bed bottom, so that when any local part is depressed by weight applied thereto other parts of the bottom not immediately adjacent will be similarly depressed. The devices usually include springs and assist in

distributing the weight over the whole bed bottom.

### 279.1 Element or detail:

This subclass is indented under subclass 131. Device comprising specific structural detail which is attributed special significance in a structural member utilized in fashioning a bedstead.

#### 280 Panel, insert, or mirror:

This subclass is indented under subclass 279.1. Devices consisting of panels, ornamental inserts, and mirrors inserted in or forming a part of a bedstead.

#### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 3 through 30, 32, 33, 34, 38, 39, 67, and 432+ for additional ornamental objects or mirrors of general application.

### 281 Post top or ornament:

This subclass is indented under subclass 279.1. Devices relating to top knobs and the like for bedstead posts, particularly their manner of attachment, and structural bedpost ornaments.

## SEE OR SEARCH CLASS:

52, Static Structures (e.g., Buildings), subclass 344 for residual vertical structure with upper terminal bearing plate or cap and subclasses 831-857 for residual elongated rigid structures.

## 282.1 Joint or connection:

This subclass is indented under subclass 279.1. Device comprising structure regarding interactive surfaces used to hold or position the various elements which form a bedstead.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

200.1+, for frames.

283, for filler bars.

288+, for corner fastenings.

### SEE OR SEARCH CLASS:

403, Joints and Connections, for joints and connectors of general utility.

#### 283 Filler bars:

This subclass is indented under subclass 279.1. Devices comprising transverse and intermediate bars used to fill in the space between the posts at the head or foot, particularly the joints connecting them.

#### 284 Heating and cooling devices:

This subclass is indented under subclass 279.1. Devices incorporated in the structure for the purpose of heating or cooling it.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

421+, for heating or cooling means not incorporated in the bedstead structure.

## SEE OR SEARCH CLASS:

- 219, Electric Heating, subclass 212 for blankets or other bed covering with electric heater, and subclass 217 for a bed structure combined with electric heating means.
- 237, Heating Systems, for the hollow tubing of the bedstead treated as a radiator.
- 338, Electrical Resistors, appropriate subclasses, for electrical resistors, per se.

# 285 Knockdown and removable parts:

This subclass is indented under subclass 279.1. Subject matter relating to methods and details of construction directed to adapting them to be readily assembled or disassembled and reduced to compact form.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

53.1+, for detachable head or foot boards.

114, for knockdown camp beds.

132, for separate three-part beds.

201, for knockdown bed bottom frames.

282.1+, for joints and connections.

288+, for ordinary detachable corner fastenings.

# 286 Side-rail and frame-rail construction:

This subclass is indented under subclass 279.1. Devices comprising special construction of the side rails, including trussing and bracing.

### 287 Exhibition couplers:

This subclass is indented under subclass 286. Devices comprising short rails for coupling the head and foot boards together for exhibition.

#### SEE OR SEARCH CLASS:

211, Supports: Racks, subclasses 13.1, 27 and 28 for stands for exhibiting bedsteads.

### 288 Corner fastenings:

This subclass is indented under subclass 279.1. Devices to connect the side rails detachably to the corner posts or the head and foot boards.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

132, for three part structures.

178+, for foldably-connected rails.

#### 289 Chill fasteners:

This subclass is indented under subclass 288. Devices attached to the post to serve as means for connecting with the engaging element of the side rail.

### 290 Post boxes:

This subclass is indented under subclass 288. Devices comprising box-like structures attached to a bedpost to serve as a means of rail attachment.

#### 291 Rail boxes and hoods:

This subclass is indented under subclass 288. Devices in which the rail carries a box-like device intended to fit closely against the post and inclose and conceal the fastening means, or a hood to slip down over a projection on the post.

### 292 Rails interengaging within posts:

This subclass is indented under subclass 288. Devices in which the end rail and the side rail at any corner both enter the corner post and mutually engage.

# 293 Rail-entering post stubs:

This subclass is indented under subclass 288. Devices in which the post is provided with a horizontally-projecting stub which enters a hollow in the rail.

#### 294 Post hooks:

This subclass is indented under subclass 288. Devices in which the post carrier a fixed hook-like element with which the rail engages.

### 295 Interlocking fingers:

This subclass is indented under subclass 288. Devices in which the post is provided with a plurality of upwardly and the rail with a plurality of downwardly projecting fingers for interengagement.

### 296 Rail hooks:

This subclass is indented under subclass 288. Devices in which the rail carries a fixed hook which enters the post and engages an element within or engages an extension on the post.

### 297 Swinging hooks:

This subclass is indented under subclass 288. Devices in which the rail and post are connected by a pivoted swinging hook.

### 298 Drawbars:

This subclass is indented under subclass 288. Devices in which the rail and post are connected by a horizontal bar or its equivalent and are drawn together by suitable means, usually a cam, screw or wedge.

# 299 Keyhole, bayonet and opentop slots:

This subclass is indented under subclass 288. Devices in which the projections forward of the post or rail enter keyhole slots or bayonet slots on the other member.

## 300 Dovetails:

This subclass is indented under subclass 288. Devices in which a part on the rail and a part on the post form together a dovetail joint. In some cases the rail may be reversed, and in others a third element forms part of the dovetail connection.

## 301 Post clamps:

This subclass is indented under subclass 288. Devices comprising rails provided with means to clamp about the corner posts.

### **302** Rotating rails:

This subclass is indented under subclass 288. Devices in which post and rails carry means interengageable by giving the rails a rotary movement.

# 303 Pins and pintles:

This subclass is indented under subclass 288. Devices comprising rails and posts engaged by means of pins inclined and engaging in orifices or by pintles, as in a hinge. The connection may be either rigid or pivoted.

#### 304 Brackets:

This subclass is indented under subclass 288. Devices comprising a projection from the post passing under and parallel to the upper flange of the side rail to form a support for it. Further retaining means of any type may be employed. In reversible forms the flange in one position may be below the bracket.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

291, for rail boxes and hoods.

293, for rails entering post stubs.

## 305 Bedstead braces:

This subclass is indented under subclass 279.1. Devices attached to or forming part of the bed-stead for the special purpose of further bracing and strengthening it, particularly to keep the rails from spreading and allowing the bottom to fall out.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

207+, and 238, for a bed bottom so supported as to brace the frame.

### SEE OR SEARCH CLASS:

248, Supports, subclass 440, for legs connected by braces, and subclass 440 for a plural leg stand or stool wherein the support surface and legs are connected by braces.

### 306 Cable systems:

This subclass is indented under subclass 305. Devices comprising cable systems connected with various parts of the bedstead and having a take-up means.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

212, for cord take-up means.

## 307 Link systems:

This subclass is indented under subclass 305. Devices employing systems of oblique links.

### 308 Receptacles, drawers and compartments:

This subclass is indented under subclass 279.1. Devices comprising drawers and the like attached to or inserted in some part of the bed structure.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

2.1+, for drawers in combination furniture; mere insertion of a drawer in some unused space about the bedstead is insufficient to carry the device to that subclass (2.1).

58. for drawers in sofa beds.

### 309 Antinoise devices and buffers:

This subclass is indented under subclass 279.1. Devices comprising special buffing and antinoise devices for all parts of beds and special employments of rubber as an elastic and buffing agent in the same.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

56, 164.1+ and 165, for springs to cushion shock and assist in moving parts.

## 310 Legs:

This subclass is indented under subclass 279.1. Devices comprising legs applied to any type bed.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

110+, for cots having detachable legs.

114, for knockdown camp beds.

285, for knockdown bedsteads.

# SEE OR SEARCH CLASS:

248, Supports, subclasses 188.1+ for legs for a stool, stand or the like.

### 311 Sliding disappearance:

This subclass is indented under subclass 310. Devices disappearing by sliding into a hole or receptacle, together with locks for the same.

#### 312 Pivoted:

This subclass is indented under subclass 310. Devices which are pivoted with their operating and controlling means.

### 313.1 Link control:

This subclass is indented under subclass 312. Device comprising an elongated coupling means for limiting or regulating the extent that a leg may pivot.

#### 314.1 Slot with shoulder:

This subclass is indented under subclass 312. Device comprising pivot limiting means which is pivotally slidable within a slit having an abutment associated therewith for locating and limiting movement of a leg.

#### 315.1 Latch:

This subclass is indented under subclass 312. Device comprising pivot limiting means which utilizes a catch to hold the leg in position.

## 315.2 Spring actuated:

This subclass is indented under subclass 315.1. Device comprising a catch having a resilient energy storage means for operating the catch mechanism.

### 316 Jointed braces:

This subclass is indented under subclass 312. Devices comprising jointed or folding braces for positioning the legs, usually with means for holding the brace extended.

# 400 Having bottom:

This subclass is indented under subclass 131. Bedstead including a support surface mounted on a rigid frame which is attached to the bedstead, the surface being adapted to support a mattress, cushion, or the like.

## 401 And integral pad:

This subclass is indented under subclass 400. Bottom including a compressible mat (e.g., mattress cushion, etc.) for supporting the body of a person, the mat and the bottom combined as a unitary structure.

# 402 Having upholstery cover on pad and means to secure cover to pad or bottom:

This subclass is indented under subclass 401. Bottom which additionally has a flexible wrapper covering the mat, and a fastening arrangement for holding the wrapper on the mat or bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

737, for a mattress or cushion, per se, which has a primary cover and means to secure the cover thereon.

#### SEE OR SEARCH CLASS:

- 24, Buckles, Buttons, Clasps, etc., subclasses 712+ for a drawstring or laced-fastener.
- 160, Flexible or Portable Closure, Partition, or Panel, subclasses 382+ for devices for fastening one edge of a fabric to a frame.
- 267, Spring Devices, subclasses 81+ for metallic springs and superposed non-metallic padding.
- 297, Chairs and Seats, subclasses 452.16+ for an upholstered chair seat and back.

# 403 By wedge or clamp:

This subclass is indented under subclass 402. Bottom wherein the cover is attached to the pad or bottom by means of a tapered wedge-shaped member and corresponding slot or a clamping means.

(1) Note. A mere nail, screw, staple, etc., is not considered to be a clamp for this subclass and will be found in subclasses 409 below.

# SEE OR SEARCH THIS CLASS, SUBCLASS:

402+, for the cover connected to the frame by tensioned hooks which are connected to the frame when the cushion springs are depressed an abnormal amount.

#### SEE OR SEARCH CLASS:

160, Flexible or Portable Closure, Partition, or Panel, subclasses 382+, particularly subclasses 391+ for clamps

or clasps fastening an edge of a fabric to a frame element.

## 404 Spring clamp:

This subclass is indented under subclass 403. Bottom wherein the clamping means includes a yieldable portion which resiliently urges the cover into contact with the mat or bottom.

# 405 With means to urge opposed clamping surfaces together:

This subclass is indented under subclass 403. Bottom wherein a separate element or mechanism is provided to force cover-contacting surfaces of the clamping member toward each other.

## 406 Deformable clamp and bead:

This subclass is indented under subclass 403. Bottom wherein the cover is held in place by the coaction of a deformable member and a bead or thickened portion of the cover.

(1) Note. Such bead or thickened portion may be an integral part of the cover, such as a rolled and seamed edge, or may be an addition thereto, such as the cover edge being wrapped around a strand of rope or metal rod.

# 407 Beads is in or part of cover:

This subclass is indented under subclass 406. Bottom wherein the bead or thickened portion of the cover is formed integrally with the cover or otherwise attached thereto prior to the assembly of the cover on the pad or bottom.

(1) Note. Included in this subclass is the core contained in a hem of the cover.

#### SEE OR SEARCH CLASS:

160, Flexible or Portable Closure, Partition, or Panel, subclass 387 for similar construction where a flexible panel is held to a frame.

# 408 By tufting:

This subclass is indented under subclass 402. Bottom wherein the cover is held on one surface of the mat by a plurality of individual filaments, each secured at one of their ends to the cover at spaced points, extending through the mat, and secured at their opposite ends to either

the bottom or the cover extending under the bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

696, for an upholstered mattress or cushion alone to which the upholstery is fastened by tufting.

# 409 By cover-penetrating fastener:

This subclass is indented under subclass 402. Bottom in which the cover is attached thereto by a piercing member which passes through the cover.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

405, for cover-penetrating fasteners with tacking strips.

## 410 Bottom-carried impaling prong:

This subclass is indented under subclass 409. Bottom wherein the supporting frame includes or has mounted thereon pins which pierce the cover to thereby secure the cover to the frame.

#### SEE OR SEARCH CLASS:

160, Flexible or Portable Closure, Partition, or Panel subclasses 398 and 400 for means which include pointed piercing elements to fasten an edge of a fabric to a frame.

# 411 And removable mattress or cushion, and means to fix its position on the bottom:

This subclass is indented under subclass 400. Bottom having an independent compressible pad which is adapted to lie on and conform to the bottom, and is intended to yieldingly support a person's body, and structure adapted to releasably secure the pad in place upon the bottom.

# SEE OR SEARCH THIS CLASS, SUB-CLASS:

18.1+, for flappers in connection with a mechanism for extending a section and for guards to prevent lateral slipping of the mattress.

#### 412 Movable relative to bedstead:

This subclass is indented under subclass 400. Structure wherein the bottom can be tilted or otherwise shifted while the bedstead remains stationary.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

11, for a bed with a bottom whose height can be adjusted while it remains horizontal.

## 413 SLEEPING BAG WITH OR RECEIVING BED OR TENT STRUCTURE:

This subclass is indented under the class definition. Subject matter comprising a sacklike structure which encloses a person's body, generally to contain heat, during a period of inactivity, such as slumber and napping.

- (1) Note. Included in this subclass are sleeping bags combined with structure found elsewhere in this class (e.g., mattress, pillow, etc.), combined with tent structure (e.g., canopy, framework, window, etc.), or having a pocket which will accept such structure.
- (2) Note. Sleeping bags in this subclass are of the type intended for use outdoors and usually have an inner layer of material, an outer layer of material specially adapted to resist the effects of weather and terrain, and an intermediate filling which thermally insulates the interior of the bag from its exterior.

### SEE OR SEARCH CLASS:

- 2, Apparel, subclass 69.5 for a baglike garment or a garment useable as a sleeping bag.
- 128, Surgery, subclasses 873+ for restrainers of the garment type for a sleeping patient.

## 414 MODIFIED FOR MOSQUITO NET OR CANOPY:

This subclass is indented under the class definition. Bed requiring structural alteration of the bedstead (e.g., longer headboard posts) for (a) a protective sheetlike structure mounted above the bed, generally for aesthetic purposes, or (b) an open weave-type enclosure, generally to

allow breathing, over and around the bed to deter insects.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 413, for a sleeping bag.
- 419, for a ground mat with a sun shade.

#### SEE OR SEARCH CLASS:

- 135, Tent, Canopy, Umbrella, or Cane, subclass 96 for canopies combined with a bed.
- 224, Package and Article Carriers, subclasses 185 and 186+ for bodyattached umbrellas and canopies.
- 248, Supports, subclasses 534+ for a bracket-type supporting device having means for receiving a staff, which staff may be a support for a mosquito net or canopy.
- 297, Chairs and Seats, subclasses 184.1+ for a chair provided with a net or canopy.

### 415 Actuated by folding of bed:

This subclass is indented under subclass 414. Sheet or enclosure connected with the bed in such a manner that it is moved into or out of position as some part of the bed is drawn together or separated.

### SEE OR SEARCH CLASS:

- 135, Tent, Canopy, Umbrella, or Cane, subclass 88 for bicycle canopies.
- 280, Land Vehicles, subclass 31 for a land vehicle convertible to a crib; subclasses 47.38+ for a stable, handle propelled general utility land vehicle including an occupant seating construction; or subclasses 647+ for a foldable vehicle designed to carry an animate object in a specific position.

#### 416 On baby carriage or carrier:

This subclass is indented under subclass 414. Device in which the bed is part of an open-topped vehicle adapted to transport an infant, and the device is adapted to cover or enclose the open top of the vehicle.

#### 417 GROUND MAT:

This subclass is indented under the class definition. Subject matter consisting of a sheet or pad adapted to be placed in direct contact with the ground or a floor, upon which a person may recline and remain isolated from the underlying surface.

#### SEE OR SEARCH CLASS:

52, Static Structures (e.g., Buildings), subclasses 3+ for article or material supported covers.

280, Land Vehicles, subclass 32.6 for a wheeled repairman's creeper.

### 418 With sun shade:

This subclass is indented under subclass 417. Ground mat combined with a means to shield at least a part of an occupant from the sun's rays.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

414, for canopies.

#### SEE OR SEARCH CLASS:

135, Tent, Canopy, Umbrella, or Cane, subclasses 87+ for a canopy.

297, Chairs and Seats, subclass 184.1 for a canopy or screen.

### 419 Having head rest:

This subclass is indented under subclass 417. Ground mat which includes an additional means to support an occupant's head.

SEE OR SEARCH THIS CLASS, SUBCLASS:

636+, for pillow-type, per se.

### 420 Padded:

This subclass is indented under subclass 417. Ground mat which includes a layer of soft, shock absorbent material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

948+, for unconventional filler materials used as supporting means.

### SEE OR SEARCH CLASS:

182, Fire Escape, Ladder, or Scaffold, subclass 129 for a kneeling pad combined with a receptacle as for soap or tools; and subclass 230 for kneeling pad, per se.

#### 421 WITH HEATING OR COOLING:

This subclass is indented under the class definition. Subject matter combined with a source of, or a sink for, thermal energy so associated with a bed as to affect the temperature felt by a person in the bed.

(1) Note. This subclass receives patents claiming bed related structure combined with nonelectric heating means.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

284, for a heating or cooling device incorporated in the bedstead.

#### SEE OR SEARCH CLASS:

62, Refrigeration, for cooling, generally.

165, Heat Exchange, for heating and cooling.

219, Electric Heating, subclass 217 for a bed or bed related structure combined with electric heating means.

432, Heating, for heating, generally.

### With heating or cooling means:

This subclass is indented under subclass 665. Waterbed or associated device having means to heat the user or the waterbed.

(1) Note. This subclass receives patents claiming bed related structure combined with nominal recitation of a heater or heating means.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

284, for a heating or cooling device incorporated in a bedstead.

421+, for heating and cooling devices for subject matter under the class definition.

#### SEE OR SEARCH CLASS:

62, Refrigeration, subclasses 259.1+ for cooling devices of structural installation.

165, Heat Exchange, subclass 46 for flexible cover type.

219, Electric Heating, subclass 217, combined with bed, and subclasses 527 and 528 for body supporting frame and flexible support.

#### 423 And means to force air:

This subclass is indented under subclass 421. Subject matter including means to artificially cause movement of heated or cooled air between the interior and exterior of the body support.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 652.2, for cushion supports with forced ventilation.
- 713+, for air mattresses that may incidentally ventilate a user.
- 726, for a mattress with forced ventilation.
- 941, for blankets that provide a forced air flow to a user.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclass 180.13 for seats and chairs ventilated with forced air.

### 424 HAVING SAFETY DEVICE:

This subclass is indented under the class definition. Subject matter including an element or assembly intended to protect a person from injury while using the bed or to prevent him from rolling out of bed.

(1) Note. Included in this subclass are devices which restrain movement of the person but do not cover him as a blanket or sheet would.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 494, for bed clothing which has means to maintain the clothing over the person.
- 621+, for a body member restraining means on a surgical table.
- 945, for inflatable baby supports that have inflatable peripheral guards.
- 946, for crib bumpers.

### 425 Side guard:

This subclass is indented under subclass 424. Safety device which includes at least one rail or planar surface situated at a side of the bed, adapted to prevent a person using the bed from rolling out.

 Note. Mere padded bumpers designed to prevent injury, but not intended to keep one from rolling out of bed, will be found in subclass 424 above.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 100, for a guard which is a part of the enclosing structure of the crib made movable.
- 732, for mattresses with a nonplanar top surface that defines at least one side-guard.
- 945, for inflatable baby supports that have inflatable peripheral guards.
- 946, for crib bumpers.

#### 426 Secured between mattress and bed bottom:

This subclass is indented under subclass 425. Device wherein the side guard is mounted on a support structure which includes at least one element sandwiched between a mattress and bed bottom.

#### 427 Flexible:

This subclass is indented under subclass 425. Device wherein that portion of the side guard which is contacted by the person using the bed is bendable.

### 428 Adjustable in place:

This subclass is indented under subclass 425. Device wherein the side guard can be moved to a plurality of positions relative to the bed without detaching it from the bed.

### 429 Telescoping:

This subclass is indented under subclass 428. Device wherein the side guard is constructed of a plurality of tubular elements, one with another, so it can be adjusted by sliding one element within another element.

### 430 Pivoting:

This subclass is indented under subclass 428. Device wherein the side guard is connected to the bed along an axis about which it rotates to a plurality of positions.

### 482 BEDCLOTHING:

This subclass is indented under the class definition. Subject matter relating to an article adapted to be selectively applied to a mattress or other bed structure to accommodate an occupant, for covering the occupant, or for decoration or protection of the bed structure, such as mattress pads or covers, sheets, blankets, pillowcases, shams, etc.

(1) Note. Art in this class requires some structural modification to materials to adapt them for body support. The mere recitation of a support, wherein the novelty resides in a chemical composition for the support, would not suffice for inclusion in this class; it would place the application in the appropriate composition art area.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

636+, for pillow-type structures.

652+, for pillow structure.

669, for bedclothes useful with waterbeds.

690+, for a mattress or cushion structure.

737+, for mattress covers.

948+, for unconventional filler materials used as supporting means.

### SEE OR SEARCH CLASS:

219, Electric Heating, subclass 212 for blankets or other bed covering with electric heater.

297, Chairs and Seats, subclasses 218.1+ for an upholstery cover detachably connected to a chair or seat frame; and subclasses 219.1+ for a slip cover for a chair or seat.

### 483 Fireproof:

This subclass is indented under subclass 482. Bed clothing of which at least a part is resistant to burning.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

698, for fireproof mattresses.

954, for fireproof or fire resistant materials

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, digest 5 for chairs and seats with fireproof components.

428, Stock Material or Miscellaneous Articles, subclasses 443+ for composite laminate including asbestos and subclasses 920+ for fire or heat protection feature.

### 484 Waterproof:

This subclass is indented under subclass 482. Bed clothing of which at least a part is resistant to passage of liquid therethrough.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

699, for waterproof mattresses.

737+, for mattress covers.

939, for microporous materials.

### 485 Having pocket:

This subclass is indented under subclass 482. Bed clothing which includes a portion which, after installation, is adapted to receive a disparate article, e.g., pillow, heater, etc.

# One section being adjustable or having characteristics which differ relative to another section:

This subclass is indented under subclass 482. Bed clothing made up of a plurality of distinguishable sections, one section being adjustable relative to another section to accommodate the comfort of each of several occupants, one section having physical characteristics which are different from another section to accommodate the comfort of various body regions of an individual occupant.

### 487 Disposable:

This subclass is indented under subclass 482. Bed clothing at least part of which is intended to be thrown away after use.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

951, for plant derived filler compositions.

### 488 And means to facilitate changing thereof:

This subclass is indented under subclass 482. Bedclothes additionally having a device which assists in the removal of soiled clothing or the installation of fresh clothing.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

692, for a mattress, per se, which is so constructed as to facilitate changing the bed clothing.

### 489 For dressing pillow:

This subclass is indented under subclass 488. Bed clothing wherein the device is adapted to assist the changing of a pillow cover.

#### 490 Pillow cover:

This subclass is indented under subclass 482. Bed clothing comprising a case or slip for a head-supporting structure.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

636, for pillow-type structures.

### 491 Pillow sham:

This subclass is indented under subclass 482. Bed clothing comprising a roll or other arrangement of material adapted to simulate a head support.

#### SEE OR SEARCH CLASS:

160, Flexible or Portable Closure, Partitions, or Panel, appropriate subclasses for pillow shams of the flexible or portable-panel type (a) having no features of structure of the bed and (b) having no relationship between the pillow sham and bed in addition to the mere fact that it is mounted on a bed.

### 492 And holder:

This subclass is indented under subclass 491. Pillow sham including means for securing it in position on the bed.

### 493 Valance:

This subclass is indented under subclass 482. Bed clothing including a skirt or frill adapted to depend from bed structure for the purpose of ornamentation or concealment.

## 494 Having means to engage body of user or bed structure to ensure proper covering of body:

This subclass is indented under subclass 482. Bed clothing having a belt, harness, or other securing device attached to the article of clothing and adapted to engage either a person's body or the bed structure, but not both, so as to maintain the article over the body.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 411, for means holding a mattress or cushion on a bottom.
- 413+, for a sleeping bag combined with bed structure.
- 424+, for a device attached to a bed which constrains a person to the bed surface itself
- 498, for means holding the bed clothes to the bed structure, but not engaging the person's body.

#### SEE OR SEARCH CLASS:

- Apparel, subclass 69.5 for sleeping bags and bag-type garments including those combined with sheetlike devices; and subclass 114 for other garments combined with sheetlike devices.
- 128, Surgery, subclass 872 for cribs blankets, sheets and covers engaging a body and the bed to secure a sleeper, and subclass 873 for sleeping bags secured to a bed.

### **495** Sheet:

This subclass is indented under subclass 482. Bed clothing comprising a thin layer of material adapted to directly overlay or to directly underlay an occupant of the bed.

### 496 Having manipulable fastening means:

This subclass is indented under subclass 495. Sheet which has manually operated means to fix the sheet in place on a mattress or cushion.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

504.1, for supports useable to attach bedclothing to a bed.

669. for bedclothes for waterbeds.

#### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclass 72.5 for bedclothes holders.

### 497 Contoured or fitted:

This subclass is indented under subclass 495. A sheet having a corner which is preformed to surround the corner of a mattress or cushion.

## 498 And means to hold clothes in position on bed:

This subclass is indented under subclass 482. Bed clothing including a device by which the bed clothing is secured to a mattress or other bed structure, so that it is maintained in place on the bed structure when the bed is upended, folded, etc.

#### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclass 72.5 for bedclothes holders.

### 499 Adapted to contact mattress:

This subclass is indented under subclass 482. Bed clothing which when installed, directly engage the mattress.

### 500 Multilayer:

This subclass is indented under subclass 499. Bedclothing including more than one thickness of material, e.g., mattress pad, etc.

### **501** And protector therefor:

This subclass is indented under subclass 482. Bedclothing and a cover for the bedclothing itself to prevent it from becoming soiled.

### 502 Multilayer:

This subclass is indented under subclass 482. Bedclothing including more than one thickness of materials, e.g., a comforter, quilt, etc.

## 503.1 RECEPTACLE OR SUPPORT FOR USE WITH BED:

This subclass is indented under the class definition. Subject matter for use with a bed comprising either (a) an enclosure or prop for holding a particular article in position relative to the bed, (b) an enclosure for holding the bed itself, (c) a rack for bed clothes, or (d) a handhold or similar device for aiding movement of a person not in the bed.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 2.1+, for a unitary structure containing a bed and some other article of furniture
- 159.1, for the combination of a case and an upending bed.
- 630+, for a support for the body of a person in the bed.

#### SEE OR SEARCH CLASS:

211, Supports: Racks, appropriate subclasses for racks of general utility, although attached to beds.

### **504.1** To support or attach bedclothes:

This subclass is indented under subclass 503.1. Support adapted to hold an article of bedclothing either when it is not installed on the bed or to impart a desired configuration to it when it is installed.

(1) Note. The props in this subclass include supports that are useful in removably attaching bedclothes or the like to a mattress or the like.

### 505.1 Above body of person using bed:

This subclass is indented under subclass 504.1. Support which holds the bedclothing over a person in bed in such a manner as to keep the weight of the bedclothing off of the person.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

669. for bedclothes for waterbeds.

### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclass 72.5 for bedclothes holders.

#### **506.1** For airing thereof:

This subclass is indented under subclass 504.1. Support including a rack which elevates the bedclothes above the bed surface when the bed is not being used and holds them separated so that the clothes can be freshened by the passage of air thereover.

### 507.1 Planar support (e.g., table, step, etc.):

This subclass is indented under subclass 503.1. Support having a flat surface adapted to support either an article (e.g., book, writing paper, etc.) in a position making it accessible to a person in the bed or support a person entering or leaving, but not in, the bed.

(1) Note. A table in this subclass is attached to the bed in such a way as to modify the bed structure. This modification could be relatively substantial, or it could be as little as forming bolt or screw holes in the bed frame.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

3+, for tables convertible to beds.

95+, for bedstead attached cribs.

### 509.1 For tilting of bed:

This subclass is indented under subclass 658. Devices separate from and attachable to a bed to lift or support one end of the bed from the floor and give the whole bed an inclination.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

11, and 311+, for a similar device which is integral with the bed.

170+, for upending bed carriers some of the above jacks are available for this purpose.

### 510 To facilitate moving of bed:

This subclass is indented under subclass 658. Device used in conjunction with a bed to aid in transporting the entire bed upon its supporting surface.

 Note. A device in this subclass generally comprises a roller, but this subclass excludes ordinary casters, per se, as such devices will be found in appropriate subclasses in Class 16.

### 511 And guide therefor (e.g., track, etc.):

This subclass is indented under subclass 510. Device and a mechanism associated with the transporting device determining the course over which the bed moves, and constraining it to that course.

## 512 Screen which is attached to periphery of hed:

This subclass is indented under subclass 658. Device which includes a flat, vertically extending surface attached to the side of the bed to isolate a person in the bed from the other side of the device.

(1) Note. The screen may simply protect the person's privacy, or it may isolate the person from a condition existing in the bed's environment, e.g., air movement, light, etc.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

97, for a closed crib.

113, for a canopied camp bed.

121, 125 and 128, for a canopied hammocks.

414+, for a bed with a mosquito net or canopy.

#### SEE OR SEARCH CLASS:

135, Tent, Canopy, Umbrella, or Cane, subclasses 121+, especially subclass 161 for canopies attached to disparate articles.

160, Flexible or Portable Closure, Partition, or Panel, appropriate subclasses for a device of that class capable of being used with but not attached to a bed

#### 513 Partition for bed surface:

This subclass is indented under subclass 658. Device including a planar element adapted to be installed on the bed so as to divide the bed into a plurality of sections so the bed will accommodate more than one person with the planar element at least partially separating the persons.

### SEE OR SEARCH CLASS:

160, Flexible or Portable Closure, Partition, or Panel, appropriate subclass for a device of that class not attached to a bed.

607, Surgery: Light, Thermal, and Electrical Application, subclass 153 for a breath deflector carried by a person's body.

### 600 INVALID BED OR SURGICAL SUPPORT:

This subclass is indented under the class definition. Subject matter providing a support surface for substantially the whole body of a user, either in repose or while being examined or treated.

 Note. While the body supported on the support surface of the devices of this and indented subclasses is the body of an invalid or patient, supports for a cadaver or the body of an animal being examined or treated are also included in this subclass.

- (2) Note. While the devices of this subclass and indented subclasses are generally used for invalid support, they can be used for supporting healthy users. For example, the sectional devices of subclasses 617+ can be used by a healthy user as a comfortable support for television viewing.
- (3) Note. The devices of this subclass and indented subclasses generally include a substructure such as a frame, upon which a body supporting pad is placed to cushion the substructure. A mere pad or cushion that is removably positionable on an understructure, would be considered a mattress or cushion, to be placed in Class 5, subclasses 652+ or 690+.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 625, for field stretchers adapted for the transport of a nonambulatory user.
- 634+, for support means for discrete portion(s) of a user, useable with a bed or surgical support.
- 943, for devices that have a supporting top surface that is longitudinally or laterally movable relative to a supporting base and returnable to its initial position which is centered relative to its supporting base.
- 944, for supports with upstanding, firm massaging projections.

#### SEE OR SEARCH CLASS:

108, Horizontally Supported Planar Surfaces, subclasses 1+ for a horizontal planar supporting surface which provides a tiltable supporting surface.

### Adapted for imaging (e.g., X-ray, MRI):

This subclass is indented under subclass 600. Subject matter in which the body support is specially adapted to support a user while being examined or treated with electromagnetic radiation, ultrasonic, etc.

 Note. Body supports with which gamma rays, radiation or other rays analogous to X-rays are used, are included in this subclass. (2) Note. This subclass excludes body supports in which the source of the radiation or the detection means for the radiation is claimed.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

943, for devices that have a supporting top surface that is longitudinally or laterally movable relative to a supporting base and returnable to its initial position which is centered relative to its supporting base.

#### SEE OR SEARCH CLASS:

- 378, X-Ray or Gamma Ray Systems or Devices, appropriate subclasses, and especially subclass 209, for body supports useful with radiation systems.
- 600, Surgery, subclasses 410+ for magnetic resonance imaging and subclasses 437+ for ultrasonic imaging.

### **Adapted for birthing:**

This subclass is indented under subclass 600. Subject matter in which the body support is specially adapted to support a female during parturition.

 Note. This subclass includes devices which in addition to facilitating birthing, will support a female user to facilitate obstetric examination or treatment.

### **Adapted for infant support:**

This subclass is indented under subclass 600. Subject matter in which the body support is specially adapted to support a child of early years.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 93.1+, for cribs that are supports with sideguards for healthy infants.
- 101+, cradles that are supports with rocking means for healthy infants.
- 655, for supports other than cribs or surgical supports, such as diaper changing tables, for healthy infants.

### Having toilet means:

This subclass is indented under subclass 600. Subject matter in which a mattress or pad supporting structure, are specially adapted to collect solid or liquid human waste, or are provided with a bedpan or toilet means.

(1) Note. Patents in this subclass require a mattress or pad supporting structure, not merely a mattress or pad, per se, resting on a support structure.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

606, for invalid beds or surgical supports that are specially adapted to lead away liquids from a body supporting surface.

695, for mattresses adapted to be supported on conventional bedsteads that have a pocket adapted to receive a toilet receptacle.

### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, appropriate subclasses for toilet structures and bedpans, per se.

### 605 Having flushing means:

This subclass is indented under subclass 604. Subject matter in which the toilet is provided with evacuation means.

#### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, appropriate subclasses for flush toilets, per se.

### 606 Having drain means:

This subclass is indented under subclass 600. Subject matter provided with means to facilitate the disposing or discharging of liquids from the user supporting surface.

(1) Note. The disposed liquid may be body fluids such as blood, or water used to wash the supporting surface.

#### SEE OR SEARCH CLASS:

108, Horizontally Supported Planar Surfaces, subclass 24 for a horizontal planar surface combined with a drain.

269, Work Holders, subclasses 13+ for devices having a product discharge facilitator which includes a receptacle for receiving the product, and subclass 15 for a device having a catch pan to collect material falling from the work.

### Tiltable along a longitudinal axis:

This subclass is indented under subclass 600. Subject matter in which the body supporting portion, as a whole, is adapted to tilt along its longitudinal axis thereby rotating or turning the supported body.

(1) Note. The supported body may be tilted only slightly along the longitudinal axis or it may be rotated a full 360 along the longitudinal axis.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

942, for supports that have longitudinally divided top surfaces with pivotable section.

### 608 And a transverse axis:

This subclass is indented under subclass 607. Subject matter in which the body supporting surface as a whole is further adapted to turn along an axis perpendicular to the long axis.

(1) Note. This subclass includes patents that disclose the positioning of a body supporting surface on a universal joint or ball and socket joint that permits the tilting of the body supporting portion along an infinite number of axes in addition to a horizontal and a transverse axis.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

610, for body supporting surfaces tiltable only along a transverse axis.

### With cyclical back and forth turning:

This subclass is indented under subclass 607. Subject matter in which the body supporting surface, as a whole is also adapted to rock to and fro along its longitudinal axis.

(1) Note. This subclass includes bedsore preventing or alleviating cyclically tiltable supports, in which the degree or

duration of the back and forth tilting can be varied.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

108, and 109, for cradles that are adapted to rock and infant back and forth.

### 610 Tiltable along a transverse axis:

This subclass is indented under subclass 600. Subject matter in which the body supporting portion, as a whole, is adapted to tilt along an axis perpendicular to the longitudinal axis of the support thereby rotating or turning a user from a horizontal position to an inclined or vertical position.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

608, for devices in which the body supporting surface can turn along a longitudinal and transverse axis.

## 611 Vertically movable support for whole body of user:

This subclass is indented under subclass 600. Subject matter in which the body supporting surface, as a whole, is adapted for up and down movement in a vertical plane to raise or lower the supported body.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

11, for devices, under the class definition, other than invalid beds or surgical supports that permit the vertical adjustment of a body supporting surface.

### SEE OR SEARCH CLASS:

248, Supports, appropriate subclasses, for vertically adjustable supports of general utility.

297, Chairs and Seats, subclasses 344.12+ for vertically adjustable seats.

## With auxiliary means to raise a portion of user above supporting surface:

This subclass is indented under subclass 600. Subject matter including additional means, associated with a main support for the whole body, which is adapted to raise a portion of the body of the user relative to the main body support.

(1) Note. This subclass includes invalid beds or surgical supports which have flexible supports, such as straps, a net or a cloth sheet placed between the main body support and the user, to raise at least a substantial portion of the user's body relative to the main support, to permit treatment of the user, or to permit the changing of the bedclothes on the main body support.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

83.1+, for hoisting devices for invalid lifting.
621, for invalid beds or surgical supports with body member supports or restrainers.

### 613 Sectional user supporting surface:

This subclass is indented under subclass 600. Subject matter in which the support surface for substantially the whole body of the user is divided into separate, distinct sections or segments.

- (1) Note. It is often the understructure beneath a pad or cushion that supports the user that has an upper surface divided into separate distinct sections or segments.
- (2) Note. The sections or segments that comprise the support surface for substantially the whole body of the user, are often pivotally connected to each other and permit the orientation of the user's body to change from a generally supine or prone position to a nonlinear position.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 690+, for mattresses or cushions that may be placed on a sectioned understructure, and especially subclass 722 for mattresses comprised of a plurality of sections which are adapted to be repositioned relative to each other.
- 942, for devices that have longitudinally divided top surfaces with pivotable sections.
- 948+, for unconventional filler materials used as supporting means.

### 614 Hydraulically operated:

This subclass is indented under subclass 613. Subject matter in which at least one section of the supporting surface is driven by fluid means in motion or under pressure.

 Note. This subclass includes devices in which a hydraulic system, such as a fluid operated cylinder, is operatively connected to at least one of the sections to move the section, and thereby reposition a user's body.

## 615 Fluid inflatable bag adjusts position of support section:

This subclass is indented under subclass 614. Subject matter in which the hydraulic means comprises a fluid inflatable container with flexible walls operatively connected to a section of the support which upon inflation or deflation moves the section.

### 616 Electrically operated:

This subclass is indented under subclass 613. Subject matter in which a section of the supporting surface is moved by a means utilizing electric power.

(1) Note. This subclass includes devices in which an electrical system, such as a screw rotated by an electric motor, is operatively connected to at least one of the sections to move the section, to thereby reposition the user's body.

## 617 Upper body portions of user supported by adjustable section:

This subclass is indented under subclass 613. Subject matter in which upper body portions of the user including the back, neck and head are supported by a movable section, while lower body portions of the user are supported by a stationary section of the sectioned body support.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 614, for sectioned invalid beds or surgical supports in which at least one section is hydraulically operated.
- 616, for sectioned invalid beds or surgical supports in which at least one section is electrically operated.

## And lower body portions of user supported by adjustable section:

This subclass is indented under subclass 617. Subject matter in which both the upper and lower body sections of the user are supported by movable sections.

## 619 Lower body supporting section segmented longitudinally:

This subclass is indented under subclass 618. Subject matter in which a lower body supporting section is segmented along its longitudinal axis.

 Note. This subclass includes patents in which the lower leg supporting section is divided longitudinally in two portions permitting the independent adjustment and support of one leg of the user relative to the other leg.

## 620 Knockdown, foldable or specially adapted for portability:

This subclass is indented under subclass 600. Subject matter in which the invalid bed or surgical support is constructed to be disassembled, collapsed or relatively adjusted in order to be carried or conveyed.

Note. The mere provision of conventional castor wheels or the like for an invalid bed or surgical support would not be sufficient to classification in this subclass.

### With body member support or restrainer:

This subclass is indented under subclass 600. Subject matter which the invalid bed or surgical support, in addition to supporting the whole body of the user, has an attached or integral accessory which is specially adapted to bear, hold or immobilize a user's body part, generally for a surgical procedure.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

630, for supports for discrete body portions of a user's that are useable with, but not attached to or integral with a bed or surgical support.

#### 622 Head or neck:

This subclass is indented under subclass 621. Subject matter in which the body member support or restraining accessory is specially adapted to support or restrain the user's neck or head.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

636, for head or neck supports that are useable with, but not attached to or integral with a bed or surgical support.

#### 623 Arm or hand:

This subclass is indented under subclass 621. Subject matter in which the body member support or restraining accessory is specially adapted to support or restrain the user's arm or hand.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

646, for arm or hand supports that are useable with, but not attached to or integral with a bed or surgical support.

### 624 Lower body portion:

This subclass is indented under subclass 621. Subject matter in which body member support or restraining accessory is specially adapted to support or restrain the user's lower body portions such as the thighs, legs and feet.

(1) Note. This subclass includes patents in which the soles of the feet are supported on a vertical plate attached at the foot end of the body support.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

610, for invalid beds or surgical supports that are tiltable along a transverse axis, some of which include a vertical plate at the foot end of the support, to prevent the sliding of the user's body from the support surface, when the support is tilted to a vertical position.

#### 625 FIELD STRETCHER:

This subclass is indented under the class definition. Subject matter comprising a support surface suspended between rigid handles, or handgrips adapted for the manual transport of a nonambulatory occupant (e.g., an invalid, a corpse, or a wounded person).

(1) Note. Devices in this subclass must be adapted, usually by the provision of handles or handgrips to be lifted or carried by a person. A wheeled body supporting structure, that is rolled on its wheels, and is not carried or lifted at least some of the time by a person will not be classified in this subclass.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

110+. for cot structure.

494, for sheet arrangements to hold the invalid to the stretcher.

#### SEE OR SEARCH CLASS:

- 224, Package and Article Carriers, appropriate subclasses, and especially subclasses 157+ for carriers for persons.
- 294, Handling: Hand and Hoist-Line Implements, subclass 140 for carriers for persons.
- 296, Land Vehicles: Bodies and Tops, subclass 20 for a stretcher combined with a supporting wheeled frame.

### 626 Combined or convertible:

This subclass is indented under subclass 625. Subject matter either in combination with matter properly classifiable in another class, or with devices under the class definition such as a body part support or surgical support, or in which parts of the stretcher can be relatively adjusted to adapt it for another use.

### 627 Foldable or knockdown:

This subclass is indented under subclass 625. Subject matter in which the stretcher is formed by a plurality of elements which can be either disassembled, collapsed, or relatively adjusted.

(1) Note. For this subclass, the stretcher parts are manipulated for purpose of storage or enhanced usefulness as a stretcher.

### With restraining means:

This subclass is indented under subclass 625. Subject matter in which the stretcher carries means adapted to immobilize a part of the occupant's body.

#### SEE OR SEARCH CLASS:

128, Surgery, subclasses 869+ for strap or harness like arrangements to hold an occupant to a supporting surface.

### With spaced shield:

This subclass is indented under subclass 625. Subject matter in which the stretcher is at least partially enclosed by a protective cover which is out of contact with the occupant.

(1) Note. Stretchers in which a cover or the like contacts an occupant are considered stretchers with restraining means, and are found in subclass 628.

### 630 SUPPORT MEANS FOR DISCRETE POR-TION OF USER, USEABLE WITH BED OR SURGICAL SUPPORT:

This subclass is indented under the class definition. Subject matter providing a surface adapted to support only a portion of the total body of a user, said surface adapted to be removably attached to or positioned on a device of the class.

(1) Note. Art in this class requires some structural modification to materials to adapt them for body support. The mere recitation of a support, wherein the novelty resides in a chemical composition for the support, would not suffice for inclusion in this class; it would place the application in the appropriate composition art area.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

690+, and especially subclasses 731 through 735, for mattresses, which are supports adapted to support the whole body.

944, for supports with upstanding, firm massaging projections.

948+, for unconventional filler materials used as supporting means.

### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, subclass 560.1, for supports for handling user.

248, Supports, subclasses 118+ for head or arm supports of general utility.

### 631 Support for pregnant abdomen:

This subclass is indented under subclass 630. Subject matter especially adapted to support that part of a human body lying between the thorax and the pelvis of a pregnant user while the female user is being supported on a bed or surgical support.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

690, for pregnant user.

735, for mattresses which support the whole body of the user and have on their top surface a cavity or indentation (especially adapted to support a pregnant woman's abdomen or breasts).

## 632 Simultaneous support for multiple body portions:

This subclass is indented under subclass 630. Subject matter in which the support means, due to its size or configuration is adapted to simultaneously support multiple body parts.

(1) Note. The simultaneously supported body parts in this subclass are substantially different and spaced from each other, e.g., back and arms, or back and legs. For example, adjacent parts such as head and neck or calf, ankle and heel would not be sufficiently different and spaced from each other to be classified in this subclass.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

621+, for invalid beds or surgical supports that are integral with body part supports.

731+, for mattresses having nonplanar top surfaces that are especially adapted for body part support.

## For back portions of a user sitting or reclining on bed:

This subclass is indented under subclass 632. Subject matter adapted to support those portions of the human body extending from the head to the pelvis when the user is sitting up or reclining in a supine position on a bed.

(1) Note. The support can be connected to the headboard of a bed and may include a pillow to support a head or a support for the arms. The support may support the entire back portion of the user from the head to the pelvis.

### Having adjustable incline:

This subclass is indented under subclass 633. Subject matter wherein the orientation of the back support relative to a horizontal plane can be varied and maintained in various portions.

#### 635 Combined with table:

This subclass is indented under subclass 633. Subject matter including a flat horizontal support for supporting items for the user of the device or for body portions of the user.

(1) Note. Tables may include means to support articles for use by the user, or for supporting the arms of the user.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

507.1, for planar supports attachable to a bed.

### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 148+ for chairs and seats with tables attached thereto.

### 636 For head or neck (e.g., pillow):

This subclass is indented under subclass 630. Subject matter in which the supporting surface sustains the users head or neck.

- (1) Note. This subclass includes pillows, surgical supports for the head or neck and all other devices adapted to support the head or neck of a user in a supine or prone position.
- (2) Note. The mere recitation of a "pillow", without further structural limitations, followed by composition(s) or filler material(s) comprising the pillow would not be enough for inclusion in this subclass. Such a device would go to where the filling composition does.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

622, for invalid beds or surgical supports with integral head supports.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 391+ for chairs and seats which include headrests for a seated person.

D6, Furnishings, subclass 601 for pillows of special shapes.

### 637 Adapted to immobilize head or neck:

This subclass is indented under subclass 636. Subject matter having additional means, which restrain the head or neck.

 Note. Patents in this subclass disclose straps, cavities with head or neck contacting wall portions, or similar elements which restrain the head or neck for a surgical procedure.

## With means to permit the passage of air for breathing:

This subclass is indented under subclass 636. Subject matter in which the head or neck supporting means contains a passage or hole through which a user can breathe, or being formed from such material (e.g., low density) that air can readily pass therethrough.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

725, for mattresses permitting breathing therethrough.

### 639 Adapted to accommodate disparate article:

This subclass is indented under subclass 636. Subject matter having means, such as a pocket, cavity or supporting portion, adapted to accommodate distinct articles for personal use, e.g., hair rollers, sound emitting devices, books, photos, toiletries etc.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

694, for mattresses with disparate article retaining means.

### 640 With distinct adjustable parts:

This subclass is indented under subclass 636. Subject matter including different adjustable portions which are repositionable relative to each other to change the configuration, dimensions or mode of use.

(1) Note. The distinct portions of the support generally change the support characteristics of the support or the orientation of the support relative to the user. An appendage such as a strap would not be sufficient to bring the device in this subclass.

### 641 Scent neutralizing or disseminating:

This subclass is indented under subclass 636. Subject matter wherein the head or neck support has means to control an unpleasant odor or to emanate a pleasing odor.

#### SEE OR SEARCH CLASS:

128, Surgery, subclass 202.18 for pillows with means affecting respiration.

### 642 Including springs:

This subclass is indented under subclass 636. Subject matter wherein the head or neck supporting means has resilient means usually located beneath the supporting surface.

 Note. The spring means includes coil springs, torsion bars, leaf springs or any deformable materials such as wires or bars that tend to return to an undeformed condition.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

491, for pillow shams that often include springs.

716+, for mattress or cushion which has a spring core.

### SEE OR SEARCH CLASS:

267, Spring Devices, for appropriate subclasses for spring devices of general utility.

## With rigid frame or base, or rigidifying or reinforcing means:

This subclass is indented under subclass 636. Subject matter wherein the head or neck support includes an inflexible frame or base means for the supporting surface or an element or means adapted to rigidify or reinforce the device.

#### Fluent material containing:

This subclass is indented under subclass 636. Subject matter wherein the head or neck support means includes a closed or closeable body filled with a flowable material.

(1) Note. The fluent material containing body must not be porous; once filled it must stay filled until it is emptied.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

654, for a support filled with fluent materials.

655.3, for a support filled with inflatable materials.

655.4, for a support filled with beads.

655.5, for a support filled with liquids or gels.

665+, for waterbed.

706+, for a fluent material filled mattress.

909, for supports containing a flowable, viscous (e.g., gel) material.

911, for bead containing.

### 645 Compartmented:

This subclass is indented under subclass 636. Subject matter wherein the head or neck supporting means is divided by internal partition(s) into a plurality of compartments.

 Note. The compartments often have different filler materials.

### 646 For arm or hand:

This subclass is indented under subclass 630. Subject matter having means to support a user's upper extremities relative to the bed.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

623, for invalid beds or surgical supports with integral supports for arms or hands.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 411.1+ for chairs and seats with special provisions for supporting a user's arms.

### 647 Including restraining means:

This subclass is indented under subclass 646. Subject matter having a supporting surface configuration or auxiliary means, such as straps, which immobilize or restrain a user's arm(s) or hand(s), usually for a surgical procedure.

### 648 For lower body portions:

This subclass is indented under subclass 630. Subject matter especially adapted to support a user's lower extremities.

(1) Note. The patents in the subclass are specifically adapted to support the thighs, legs, knees, ankles and feet of a person.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

624, for invalid beds or surgical supports within integral supports for lower body portions and subclass 602 for invalid beds or surgical supports especially adapted for birthing or obstetric procedures.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 423.1+ for chairs or seats with special provisions for supporting a user's lower body portions.

### 649 Heel stirrups:

This subclass is indented under subclass 648. Subject matter comprising means adapted to support the user's heel, usually to facilitate a gynecological examination or a surgical procedure.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

602, for supports especially adapted for birthing, which often include stirrups.

624, for invalid beds or surgical supports with integral supports for lower body portions.

### 650 Including restraining means:

This subclass is indented under subclass 648. Subject matter having a supporting surface configuration or auxiliary means, such as straps, which will immobilize or restrain a user's lower body portions, usually for a surgical procedure.

#### SEE OR SEARCH CLASS:

128, Surgery, subclass 882 for restrainers or immobilizers adapted to support a user's leg or foot.

### With support for sole of feet:

This subclass is indented under subclass 648. Subject matter including a generally flat surface adapted to contact the user's foot sole or bottom portion of feet.

## 652 SUPPORT FOR USER'S BODY OR PART THEREOF:

This subclass is indented under the class definition. Subject matter comprising a supporting device which provides a surface to support at least a portion of a user's body.

- (1) Note. This subclass and its indented subclasses exclude supports such as sofa beds, invalid beds, surgical supports, support means for discrete portion of a user that are useable with beds or surgical supports, field stretchers, cribs, cradles, bedsteads, waterbeds, fluidized beds, mattresses, cots, camp beds, hammocks, sleeping bags, ground mats, and other devices already provided for in the class.
- (2) Note. This subclass includes "cushions" used to support a user's body or part thereof, not already provided for in the class.
- (3) Note. Art in this class requires some structural modification to materials to adapt them for body support. The mere recitation of a support, wherein the novelty resides in a chemical composition for the support, would not suffice for inclusion in this class; it would place the application in the appropriate composition art area.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

600+, for invalid beds or surgical supports.

630+, for pillow-type support means for discrete body portions of a user, useable with a bed or surgical support.

690+, for mattresses.

944, for supports with upstanding, firm, massaging projections.

948+, for unconventional filler materials used as supporting means.

## 652.1 Ventilated or permitting substantial air or liquid passage:

This subclass is indented under subclass 652. Support for body or part having an aperture or channel permitting the circulation of fluids (such as ambient air or liquids) between the interior and the exterior of the support, to enhance the comfort of a user.

- (1) Note. The aperture or channel means in the support must permit substantial movement in and out of the support. The use of a porous cover on a support, or the use of a conventional porous foam as the filler, that inherently permit movement of air through their pores, is not sufficient for classification in this subclass.
- (2) Note. Excluded from this subclass are supports with slits, grooves, or cutouts on a support surface provided for localized altering of the firmness of the support.
- (3) Note. This subclass includes cushions that permit the draining of liquids therethrough, of the type used outdoors.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 704, for mattresses in which the handle means are provided with means providing ventilation.
- 717, for spring mattresses that have edge or border features that may include ventilating means.
- 724+, for ventilated mattresses.
- 730, and 736, for channels, grooves, peaks, or valleys on a mattress top surface that may inherently provide a ventilated user supporting top surface.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 180.1+ and 452.42 for ventilated chairs and seats.

#### 652.2 With means to force ventilation:

This subclass is indented under subclass 652.1. Ventilated support with a device such as a fan or air pump to propel air into and out of the support.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

423, for devices to force heated or cooled air.

941, for blankets that provide a forced air flow to a user.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclass 180.13 for seats and chairs ventilated with forced air

## Removable support specially adapted for seating:

This subclass is indented under subclass 652. Subject matter comprising a portable pad or cushion with a supporting surface, which due to its support characteristics, construction, shape or size is specially adapted to support a user's buttocks in a seated position, with the pad or cushion being removably positionable on a chair, wheelchair or similar support.

(1) Note. Art in this class requires some structural modification to materials to adapt them for body support. The mere recitation of a support, wherein the novelty resides in a chemical composition for the support, would not suffice for inclusion in this class; it would place the application in the appropriate composition art area.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

690+, for mattresses.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 180.1+
for chairs and seats having heating or
ventilating means, subclasses 250.1+
for cushions that have detachable con-

nection means for attachment to a chair or seat, and subclasses 452.21+ for contoured bottoms of chairs or seats.

## Fluent material containing (e.g., air, water, gel):

This subclass is indented under subclass 653. Subject matter in which the pad or cushion contains a flowable material such as a liquid, gas, gel or a plurality of beads.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 644, for support means useable with beds or surgical supports, containing a flowable material.
- 655.3, for supports containing a gas such as air.
- 655.4, for supports containing fluent solid particles.
- 655.5, for supports containing a liquid.
- 665+, for waterbeds, which comprise liquid filled body supports for the whole body.
- 689, for fluidized beds.
- 702, for mattresses filled with solid fluent materials.
- 706+, for mattresses filled with a gas such as air.
- 909, for supports containing a fluent material.
- 911, for supports containing beads.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 284.6 and 452.41 for fluent material containing and Digest 3, for pneumatic supports.

### 654.1 With spring means (e.g., coil type):

This subclass is indented under subclass 653. Support for body or part in which the pad or cushion containing a potential energy storing device that temporarily compresses when a user sits.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 642, for pillow-type supports that comprise springs.
- 652.1, for ventilated supports that may comprise springs.
- 655.7, for supports that comprise springs.

716+, for mattresses that comprise springs.

### SEE OR SEARCH CLASS:

267, Spring Devices, subclasses 142+ a for cushion for human comfort.

### Specially adapted for infant support:

This subclass is indented under subclass 652. Subject matter in which the body supporting surface is particularly constructed, shaped or sized to support an infant.

(1) Note. This subclass includes changing tables and pads that have some modification or structure to facilitate the changing of an infant's diapers.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

93.1+, for cribs.

101+, for cradles.

424+, for safety devices.

- 603, for invalid beds or surgical supports specially adapted for infant support.
- 940, for devices having alarm means that can include alarms detecting the removal of an infant from a support, the crying of an infant, or temperature changes on an infant support.
- 945, for inflatable baby supports that have inflatable peripheral guards.
- 947, for wall mounted baby changers.

### 655.3 Inflatable (e.g., air containing):

This subclass is indented under subclass 652. Support for body or part containing or fillable with a gas which is usually air.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 644, for pillow-type supports filled with fluent materials.
- 654, for supports adapted to be seated upon, containing a fluent material.
- 706+, for mattresses filled with a gas which is usually air.

### 655.4 Bead containing:

This subclass is indented under subclass 652. Support for body or part having at least a portion thereof filled with a large number of small particles of particulate solid material that are adapted to flow relative to one another as a fluent material.

(1) Note. The particulate solid material may be sand; spheres of plastic, metal, wood, or ceramic; beans; or other similar materials, usually enclosed in a container.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 644, for pillow-type supports with fluent materials.
- 654, for supports, especially adapted to be seated on, filled with fluent materials.
- 702, for mattresses with solid, fluent materials.
- 911. for devices filled with beads.

### 655.5 Liquid or gel containing (e.g., water):

This subclass is indented under subclass 652. Support for body or part comprising a wettable fluid filler which is usually water.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 644, for pillow-type supports containing a fluent material.
- 654, for supports adapted to be seated on which include a fluent filler.
- 665+, for waterbeds, which comprise liquid filled body support for the whole body.

### **655.6** Tufted:

This subclass is indented under subclass 652. Support for body or part including a plurality of connectors, usually in the form of stringlike filaments, generally connecting the upper and lower portions of the supports.

- (1) Note. Usually a cover encapsulates a support and is secured to the support at points spaced apart on the cover's surface by filaments which pass from the surface of one side of the cover completely through the support to the surface of the cover on the opposite side of the support, to keep the support in a compressed state, to thereby prevent loss of shape or expansion of the support.
- (2) Note. The filaments are often attached to tufting buttons placed on the top cover and under the bottom cover of a support.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 408, for a bedstead with a bottom, with a pad connected by tufting.
- 712, for gas containing mattresses having ties or seals.

#### SEE OR SEARCH CLASS:

- 24, Buckles, Buttons, Clasps, etc., subclass 114.3 for tufting buttons and subclass 102 for linked tufting.
- 112, Sewing, subclass 2.2 for a machine to sew tufting, subclass 80.01 for embroidery tufting, and subclass 470.24 for a tuft making machine.

### 655.7 Spring containing (e.g., coil type):

This subclass is indented under subclass 652. Support for body or part including at least one potential energy storing device that provides substantial support for a user and will temporarily compress when a user's weight is placed on the support, the support usually comprising an upholstery material such as a ticking, and usually including a padding material (e.g., batting or foam) above the member and below the ticking.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 230+, 239+, and 246+, for a bed bottom disclosing structure framing or metallic connections of springs.
- 642, for pillow-type head supports that include springs.
- 654.1, for seat-type supports comprising spring means.
- 716+, for mattresses comprising springs.

### SEE OR SEARCH CLASS:

267, Spring Devices, subclasses 142+ for a cushion for human comfort.

### 655.8 Compartmentalized springs:

This subclass is indented under subclass 655.7. Spring containing support in which the plurality of the potential energy storing devices are separated by partitions.

(1) Note. Usually individual or small group of springs are enclosed in a clothlike cover to isolate the individual springs or group of springs from other springs.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

720, for mattresses having compartmentalized springs.

### 655.9 With substantial foam component:

This subclass is indented under subclass 652. Support for body or part comprising an ample amount of usually resilient expanded cellular material.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

630+, for pillow-type supports that often contain foam.

690+, especially subclass 727, for mattresses that often contain foam.

740, for mattresses having unusual foam materials or foam configurations.

953, for body supports comprising expanded cellular substance(s) having unconventional physical or chemical properties.

### 656 Specially adapted for outdoor use:

This subclass is indented under subclass 652. Subject matter wherein significance is attributed to the nature, construction, or materials of the supporting device which specially adapted it for use out of doors.

- (1) Note. This subclass includes devices that facilitate the suntanning of a user.
- (2) Note. This subclass includes devices adapted to support the head of a user in an outdoor setting, while shading at least a part of a user's head with a shade or canopy.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

110+, for cots.

112+, for camp beds.

119, for supports attached to the outside of a vehicle.

120+, for hammocks.

413, for sleeping bags.

414+, for devices under the class definition with mosquito nets or canopies.

417+, for ground mats.

938, for devices that include a reflective material which facilitates suntanning.

#### SEE OR SEARCH CLASS:

135, Tent, Canopy, Umbrella, or Cane, subclasses 87+ for a canopy.

297, Chairs and Seats, subclass 184.1 for weather shields

### With distinct adjustable supporting parts:

This subclass is indented under subclass 652. Subject matter in which the body supporting device presents at least two distinct body supporting surfaces or portions, one of which is adjustable relative to the user's body.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

613+, for invalid beds or surgical supports for various adjustable support portions.

722, for mattresses that have distinct movable sections.

#### 657.5 With edge roll, cord, or welt:

This subclass is indented under subclass 652. Support for body or part including a peripheral ropelike reinforcing or decorative means (such as piping) usually associated with a covering of the support.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

406+, for pads with covers that have a bead.

717, for innerspring core-type mattresses having substantial edge or side features.

739, for mattresses having substantial means to form or strengthen their edges or borders.

### 658 ATTACHMENT OR ACCESSORY:

This subclass is indented under the class definition. Subject matter wherein significance is attributed to a nonessential article which is especially adapted for use with a bed or other device under the class definition.

(1) Note. The devices of this subclass are structurally modified to be used with bed or other device under the class definition, or are devices that due to their nature are inherently and exclusively used with a bed or other device under the class definition. A mere recitation of utility with a bed or other device under

the class definition would not be sufficient to classify a patent in this subclass.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

503.1+, for receptacles or supports for use with beds or other devices under the class definition.

904, 905, 907, 908, 915, 916, 931, and other appropriate cross-reference art collections for devices in combination with devices under the class definition.

## 659 For placement below a mattress and above its supporting structure (e.g., bed boards):

This subclass is indented under subclass 658. Subject matter comprising an attachment or accessory adapted to be removably positioned between a mattress and its supporting structure, for the purpose of altering the support characteristics of the mattress.

(1) Note. This subclass includes bed boards that are generally planar and firm elements that are removably positioned below a mattress and above its supporting surface (e.g., box spring) for the purpose of improving the supporting characteristics of the mattress, as by making the mattress firmer.

## 660 Adapted to incline mattress or portion thereof:

This subclass is indented under subclass 659. Subject matter wherein the attachment removably placeable between the mattress and above the supporting structure for the mattress is adapted to slant at least a portion of the mattress relative to the supporting structure whereby the back portion or the foot portions of the user of the mattress are in an inclined position.

 Note. The attachments in this subclass include mechanical or inflatable devices that can adjustably change the inclination of the mattress relative to its supporting structure.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

634, for body supports placeable on a mattress or surgical support that can support a user's back portions at adjustable inclinations.

## Extenders for head portion or foot portion of bed:

This subclass is indented under subclass 658. Subject matter comprising attachments which are adapted to be removably connected to the head or foot portion of a bed, or other device under the class definition, at the same level as the supporting surface of the bed, for the purpose of increasing the length of the supporting surface to accommodate a user of above normal height.

(1) Note. The attachments in this subclass may be removably connected to a mattress or frame portions of a bed, and once connected, increase the surface area available to support a user's body.

### 662 Self-help support, grip or handhold:

This subclass is indented under subclass 658. Subject matter comprising accessories attachable to a bed or other device under the class definition for the purpose of aiding a user in repositioning himself or herself on the bed surface.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

81.1, for invalid lifting and transferring devices with which the invalid is repositioned on a bed or like surface by an attendant such as a nurse.

### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, subclasses 576.1, 577.1 for hand grips used on bath tubs.

## Adapted to cover or protect a rail or frame portion of a bed:

This subclass is indented under subclass 658. Subject matter comprising an attachment or accessory that is attached or attachable to a frame or rail portion of a bed, or like device, for the purpose of guarding the frame or rail from contact with a wall or the like, or to guard a user of the bed from being bumped or bruised by the rail or frame portion of the bed.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

424, for safety devices in general.

678+, for waterbeds that have frames with rail caps.

909, for waterbed frames that may have railcaps.

### SEE OR SEARCH CLASS:

248, Supports, subclass 345.1 for bumper or scuff plate used with supports of general utility.

#### 665 WATERBED OR ASSOCIATED DEVICE:

This subclass is indented under the class definition. Subject matter comprising a structure, providing a flexible supporting surface for substantially the whole body of a user, at least a portion of the structure adapted to enclose an amount of liquid, and devices associated with such a liquid enclosing structure.

- (1) Note. Waterbeds generally comprise a flexible bladder confining a liquid, with the bladder supported or surrounded by a frame structure, with the bladder adapted to provide a yieldable supporting surface for substantially the whole body of a user reclining in a generally horizontal position.
- (2) Note. Associated devices include structures that are combined with waterbeds, or have been significantly modified to be used or useful with waterbeds.
- (3) Note. A waterproof liner is often placed between a bladder and its surrounding frame to collect and contain any liquid that may spill upon the rupture of the bladder and would be found in this and indented subclasses.
- (4) Note. Waterbeds in which another mattress, such as an air filled mattress, is placed permanently or removably on top of the liquid bladder to support the user are classified in this and indented subclasses.
- (5) Note. Liquid containing supports that do not support substantially the whole body of a user are not considered waterbeds.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 308, for bedsteads having receptacles, drawers, or compartments.
- 400+, for bedsteads having a bottom.
- 644, for pillow-type supports containing fluent materials.
- 654, for seat cushions comprising fluent materials.
- 655.3, for inflatable supports (e.g., cushions).
- 655.5, for a liquid or gel containing support for a user's body or part thereof.
- 706+, for inflatable mattresses (e.g., air mattresses).
- 932, for seals and sealing methods for plastics.

### SEE OR SEARCH CLASS:

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclasses 60+ for methods of sealing plastic materials.

### With sound or light means:

This subclass is indented under subclass 665. Waterbed or associated device including a loudspeaker or an illumination device.

(1) Note. The loudspeakers associated with the waterbed may, in addition to audible sound, produce electromagnetic waves that may be felt as vibration by the user of the waterbed.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

904, for a sound emitting device.

905, for a light emitting device.

#### SEE OR SEARCH CLASS:

362, Illumination, subclass 130 for illuminating devices useable with a bed.

### With insulating means:

This subclass is indented under subclass 665. Waterbed or associated device with discrete means to inhibit or selectively control transfer of thermal energy between a waterbed and the user of a waterbed, or between the waterbed and the surrounding environment.

- Note. The insulating means generally comprise materials such as foam, fabric, air filled containers, or other generally poor conductors of thermal energy.
- (2) Note. Devices whose sole function is to insulate must be present for patents in this subclass, not merely conventional frames, bedclothes, covers, or liners that inherently have insulating properties.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

700, for mattresses having insulating means.

938, for devices that include reflective materials.

### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 402+ for particulate matter.

#### With bedclothes:

This subclass is indented under subclass 665. Waterbeds or associated device comprising (a) a covering sheet, blanket, pillowcase, sham, etc. for the waterbed or the user or (b) means to retain a covering sheet relative to the waterbed or user.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

482+. for bedclothes.

504.1+, for a support for bedclothes.

692, for a mattress having means to facilitate application or retention of bedclothes.

923, for bedclothes that include hook and loop type fasteners.

#### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclass 72.5 to hold bedclothes.

### 670 With massaging by fluid jet:

This subclass is indented under subclass 665. Waterbeds or associated device having a nozzle-type apparatus that forcefully directs liquid or gas, from within the water-containing bladder, against the supporting surface of the bladder to massage a user.

#### SEE OR SEARCH CLASS:

- 4, Baths, Closets, Sinks, and Spittoons, subclasses 541.1+ for means to agitate the water in a tub.
- 601, Surgery: Kinesitherapy, subclasses 154+ for lavative devices.

### With filling or draining means:

This subclass is indented under subclass 665. Waterbeds or associated devices having means (e.g., valves) to facilitate the insertion or removal of a liquid, into or out of the bladder.

- (1) Note. A mere conventional valve on the bladder is not sufficient to classify a patent in this subclass.
- (2) Note. This subclass receives patents which claim specialized valves or ports for the filling or emptying of the bladder.

#### SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclasses 223+ for inflatable article and subclass 883 for single inlet and multiple valved outlets.
- 141, Fluent Material Handling, With Receiver or Receiver Coacting Means, subclasses 65+ for evacuation apparatus, subclass 114 for manipulation of flexible or collapsible receiver or supply, subclasses 313+ for filling means with flexible or collapsible receiver or receiver coacting means, and subclass 382 for flexible hose terminal filling means with receiver engaging means.
- 251, Valves and Valve Actuation, subclass 61.1 for flexible, expansible wall with reciprocating valve actuator and subclasses 129.01+ for electrically actuated valves.

### 672 Including pump means:

This subclass is indented under subclass 671. Waterbed filling or draining means with a fluid moving apparatus that facilitates conveying a fluid.

### SEE OR SEARCH CLASS:

417, Pumps, subclasses 151+ for jet pump moving one fluid pumped by contact or entrainment with another.

### 673 Including air removal (e.g., burping) means:

This subclass is indented under subclass 671. Waterbed filling or draining means having means to release gas that accumulates in a liquid filled bladder.

### With vibration or wave producing means:

This subclass is indented under subclass 665. Waterbeds or associated devices including an apparatus imparting a mechanical movement to the bladder to create an oscillation or undulation.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

666, for a wave or vibration imparted to a waterbed bladder through a speaker or other electromagnetic radiation emitting means.

915, for a vibrating means.

#### SEE OR SEARCH CLASS:

601, Surgery: Kinesitherapy, subclasses 49+, 86, 90, 98, 115+, and 146 for body support vibrator.

#### With decorative means:

This subclass is indented under subclass 665. Waterbeds or associated devices having a primarily ornamental feature.

(1) Note. The decorative feature may include (a) a mirror, colored or textured panels for the frame portion of the waterbed, or (b) coloring or texturing means for the bladder.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

280, for decorative structures in a bedstead.

907+, for a decorative feature.

#### SEE OR SEARCH CLASS:

D6, Furnishings, subclasses 382+ for a bed ornamental feature.

### 676 With highly viscous filler:

This subclass is indented under subclass 665. Waterbeds or associated devices in which the liquid within the bladder has more tendency to hold together as it flows (i.e., thicker) or more gel-like than water, for example.

(1) Note. The viscous liquid within the bladder may be water to which a viscosity increasing chemical additive has been added or it may be a non-aqueous, flowable, high viscosity composition.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

655.5, for liquid or gel containing body support.

909, for flowable, viscous (e.g., gel) material containing.

#### 677 With stretchable bladder wall:

This subclass is indented under subclass 665. Waterbeds or associated devices in which the surface area of a wall or walls of the structure can increase in size upon a user being positioned on the wall and, upon the user withdrawal, the wall or walls retract to their original size.

- (1) Note. The expandable and retractable walls of the bladder may be made from a smooth, homogeneous elastic material, or may be made from a material that has expandable folds molded therein.
- (2) Note. The elasticity of the top, user supporting surface of the bladder may be nonuniform across the top, thereby providing different support characteristics for different users utilizing the waterbed.

## With frame means supporting or surrounding a removable bladder:

This subclass is indented under subclass 665. Waterbeds or associated devices including a boxlike construction that holds the liquid enclosing structure above a floor or encompasses the liquid enclosing structure perimeter, with the construction located outside the liquid enclosing structure.

- (1) Note. Frame structures in this subclass are often made of wooden boards.
- (2) Note. This subclass may include waterproof liners placed between a bladder and a frame to contain any liquid that may spill when the bladder ruptures.

(3) Note. This subclass may include permanent or removable covers or caps for frame elements to cushion hard portions or edges of frames, thereby providing a softer, more yielding support for a user.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

400+, for bedsteads having bottoms.

663, for structures adapted to cover or protect a rail or frame portion of a bed.

### With pedestal means:

This subclass is indented under subclass 678. Waterbed frame including substantial structural elements under the construction supporting or surrounding the bladder, to substantially raise the bladder above a supporting floor surface, to thereby facilitate access of a user to the bladder.

(1) Note. The pedestal may include wooden boards defining a boxlike structure or a wheeled metal subframe that permits the rolling movement of the waterbed.

### 680 Comprising foam:

This subclass is indented under subclass 678. Waterbed frame in which the supporting or surrounding construction comprises a substantial amount of a material in a lightweight cellular form resulting from introduction of gas bubbles during manufacture.

(1) Note. The foams used with the frames are generally soft, semirigid polymeric foams that provide structural integrity to the frame or a soft, yielding surface for the peripheral areas of the bladder.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

687, for waterbeds that may have integral foam peripheral elements that do not permit the removal of the bladder.

### 681 Inflatable (e.g., air frame):

This subclass is indented under subclass 678. Waterbed frame in which at least a portion of the construction is expandable with air or gas.

SEE OR SEARCH THIS CLASS, SUBCLASS:

687, for waterbeds that may have integral foam peripheral elements that do not permit the removal of the bladder.

### 682 Having baffle means:

This subclass is indented under subclass 665. Waterbeds or associated devices disclosing the use of devices within the bladder which have the function of controlling the movement of liquid, or waves within the bladder that are formed when a user gets on or off, or moves on the top surface of the bladder.

- (1) Note. This subclass must have structural elements that are located inside the water filled bladder and may or may not be connected to the bladder's inner walls.
- (2) Note. The baffles in this subclass generally comprise strips or sheets of plastic materials, chunks, or layers of polymeric foams, all located within the bladder.

### 683 Hydraulic chambers:

This subclass is indented under subclass 682. Waterbed with baffle in which the baffle structure comprises a plurality of apertured sheets that divide the interior of the bladder into a plurality of compartments or enclosures, into and out of which liquid enters and exits as a user gets on or off, or moves on the top, supporting surface of the bladder.

### Fiber containing:

This subclass is indented under subclass 682. Waterbed with baffle in which the baffle structure comprises a slender and greatly elongated natural or synthetic filament.

(1) Note. The fibrous material is usually manmade and permits movement of water in the space between the strands of fibrous material.

### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 357+ for coated or structurally defined flake, particle, cell, strand, strand portion, rod, filament, macroscopic fiber, or mass thereof.

### 685 Having plural, distinct removable bladders:

This subclass is indented under subclass 665. Waterbeds or associated devices comprising at least two individual liquid enclosing structures that together define a supporting surface for a user, with at least one of the structures replaceable.

(1) Note. The plurality of individual bladders are generally adjacent to each other and are individually fillable to a desired degree to provide a nonuniform supporting surface across the top portion of the waterbed.

### 686 Integral, unitary bladder structure:

This subclass is indented under subclass 665. Waterbeds or associated devices in which the liquid enclosing structure is one baglike container.

#### With side or internal chamber or bladder:

This subclass is indented under subclass 686. Waterbed with unitary bladder in which the user supporting liquid enclosing structure has a surrounding or internal air or other fluid containing compartment that is integral with the structure, or in which the liquid enclosing structure is divided by an air or other fluid containing compartment into separate and distinct compartments that cannot be removed or replaced relative to each other.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

680+, for waterbeds that may have foam or inflatable peripheral elements, in which the bladder is removable from the peripheral elements.

### 688 With corner reinforcing means:

This subclass is indented under subclass 686. Waterbed with unitary bladder in which a 90° portion of the bladder perimeter is strengthened to prevent rupture of the bladder.

- Note. The corner areas may be reinforced by sealingly attaching additional layers of plastic materials to the corners of the bladder.
- Note. The corner reinforcing means may be rough or textured materials that have

the additional function of gripping and retaining bedclothes between a bladder and a frame.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

739, for mattresses that have means to form or strengthen the edge, border, or corner of the mattress.

#### 689 FLUIDIZED BED:

This subclass is indented under the class definition. Subject matter comprising a supporting surface for the whole body of a user in which at least a part of the supporting surface is provided by a pressurized stream of gas, usually air, or by a very large number of small, solid particulate material (e.g., beads) that are at least temporarily lifted and kept in a suspended fluidized state by a pressurized stream of gas and device associated with such supporting surface.

- (1) Note. The particulate, solid fluidizable beads may be spheres of plastic, metal, ceramic, wood, sand, or other materials, in sizes and shapes that are fluidizable by a stream of pressurized gas.
- (2) Note. The fluidizable beds of this subclass are often used to support burn victims or are used to prevent or treat bed sores.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 652.2, for supports for a user's body or part thereof (e.g., cushions) containing beads.
- 702, for mattresses containing fluent particulate solid fillers (e.g., beads).
- 940, for microporous covers that permit the passage of air, but not of solids such as beads.

### SEE OR SEARCH CLASS:

- 137, Fluid Handling, subclass 883 for system with flow control means for branched passages having a single inlet with multiple distinctly valved outlets.
- 601, Surgery: Kinesitherapy, subclass 158 for lavative device with applicator having specific movement on a couch.

604, Surgery, subclasses 890.1+ for controlled release therapeutic device or system.

### 690 MATTRESS (FOR WHOLE BODY):

This subclass is indented under the class definition. Subject matter comprising a pad which is generally adapted to be removably placed upon an underlying support, such as a bedstead, frame, or a boxspring, and is of a size sufficient to underlie and support substantially the whole of a person's body, the purpose of which is to make the person more comfortable while resting.

- Note. A device in this subclass is intended to be used with an underlying support, but does not include the underlying support and could be used without it
- (2) Note. Art in this class requires some structural modification to materials to adapt them for body support. The mere recitation of a support, wherein the novelty resides in a chemical composition for the support, would not suffice for inclusion in this class; it would place the application in the appropriate composition art area.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 400+, for a bottom either with or without a mattress or cushion.
- 420, for a pad intended to lie directly on the ground or floor.
- 630+, for supports for discreet portion(s) of a user's body, useable with a bed or surgical support.
- 652+, for supports for user's body or parts thereof, such as subclasses 653+ for cushions specially adapted to be seated on or subclass 655 for supports especially adapted for infants.
- 665, for waterbeds and associated devices.
- 689, for fluidized beds and associated devices.
- 902, for mattresses with a nonrectangular supporting surface.
- 948+, for filler materials used in body supports.

#### SEE OR SEARCH CLASS:

- 29, Metal Working, subclasses 91+ for upholstered article making.
- 53, Package Making, subclass 524 for compacting mattress filling.
- 248, Supports, subclasses 560+ for resilient supports.
- 267, Spring Devices, subclass 75 for reciprocating bed cushioning devices, subclasses 80+ for a spring panel, subclass 130 for press cushion, and subclasses 142+ for cushion.
- 297, Chairs and Seats, subclass 452.48 for a seating device employing a cushion as a component thereof and limited by construction to a chair component, such as back or buttock support, as by particular shape to fit the contour of the body or by means to detachably connect the cushion to an underlying back or seat.
- 428, Stock Material or Miscellaneous Articles, subclass 71 for sheet including cover encasing foam, subclass 74 for sheet including cover encasing noninterengaged fibered material (e.g., batt), subclass 101 for superposed movable attached layers, subclasses 102+ for web or sheet including stitching and discrete fastener, coating or bond, subclass 116 for a honeycomblike web or sheet, and subclass 178 for nonplanar uniform thickness material with cells.
- 441, Buoys, Rafts, and Aquatic Devices, subclass 127 for a cushion convertible to a water rescue of life protecting apparatus and subclasses 129+ for body supporting buoyant device.

## 691 Supported on or removably attachable to another mattress:

This subclass is indented under subclass 690. Mattress especially adapted to be removably placed on top of another mattress, beneath a user.

(1) Note. The mattresses under this subclass are of substantially the same length and width as the mattress on top of which they are supported, are usually thinner than the mattress they are supported on, but are substantially thicker than a

quilted sheet, and often include separable fasteners, such as straps or belts that help their removable retention on the supporting mattress.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

500, for a multilayered sheet adapted to contact a mattress.

736, for mattresses with egg crate peaks and valleys on their top surfaces, that are often used removably on top of a supporting mattress.

## 692 Having means to facilitate application or retention of bedclothes:

This subclass is indented under subclass 690. Mattress including structure which simplifies application of, or which holds, a sheet, cover, spread, etc., thereto.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

482+, for bedclothing.

488+, for bedclothing and a means not part of the mattress to facilitate changing thereof.

669, for bedclothes especially adapted for waterbeds.

### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclass 72.5 for bedclothes holders.

297, Chairs and Seats, subclass 219.1 for detachable supplemental covers for chairs or seats.

### 693 With magnetic means:

This subclass is indented under subclass 690. Mattress including a dipolar conductive material such as a permanent magnet or an electromagnet.

- Note. The presence of a magnet that is part of a motor associated with the mattress is not sufficient to classify in this subclass.
- (2) Note. The magnets passively associated with the mattress in this subclass allegedly provide "health benefits" to a user resting on the mattress, but are not "actively" used in treating a diseased patient.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

906, for devices that include a magnet.

#### SEE OR SEARCH CLASS:

600, Surgery, subclasses 9+ for magnetic devices used for therapy.

## 694 With disparate article or article retention means:

This subclass is indented under subclass 690. Mattress including various outside the class devices such as (a) a gun, sound emitting means, or safe, or (b) pocket or cavity adapted to accommodate such a device.

(1) Note. Disparate articles that provide or alter the body supporting structure of the mattress, such as springs, stiffening boards, or insulating materials, and disparate articles, such as head supports, ventilating fans, or bedclothes retaining means, that are provided for elsewhere under this mainline title are excluded from this subclass.

#### 695 Toilet or bedpan means:

This subclass is indented under subclass 694. Mattress with disparate article wherein provision is made for a device to collect human waste or retain the device.

- (1) Note. This subclass takes patents disclosing a mattress which is modified to accept the toilet means, whereas the bed bottom is not.
- (2) Note. Netting means permitting the passage of excrements is considered a toilet or bedpan means.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

604+, for invalid beds or surgical supports that have toilet means.

### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, subclasses 300+ for flush closets and subclasses 450+ for bedpans.

#### 696 Tufted:

This subclass is indented under subclass 690. Mattress including a plurality of vertical string-like filaments, generally between the upper and lower portions of the mattress.

- (1) Note. Usually a cover encapsulates a pad and is secured to the pad at points spaced apart on the cover's surface by filaments which pass from the surface of one side of the cover completely through the pad to the surface of the cover on the opposite side of the pad to keep the pad in a compressed state and to thereby prevent loss of shape or expansion of the pad.
- (2) Note. The filaments are often attached to tufting buttons placed on the top cover and under the bottom cover of a pad.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 408, for an upholstered mattress or cushion in combination with a bottom, wherein the mattress or cushion has tufting.
- 655.6, for supports for a user's body, or part thereof, including the use of tufting filaments.
- 712, for gas containing mattresses having ties or internal seals.

#### SEE OR SEARCH CLASS:

- 24, Buckles, Buttons, Clasps, etc., subclass 114.3 for tufting buttons and subclass 102 for linked tufting.
- 112, Sewing, subclass 2.2 for a machine to sew tufting, subclass 80.01 for embroidery tufting, and subclass 470.24 for a tuft making machine.

## 697 Having uniform firmness, changeable by user:

This subclass is indented under subclass 690. Mattress including means to change the supporting characteristics of the mattress as a whole from stiffer to less stiffer modes and vice versa.

(1) Note. The means to change the firmness of the mattress generally include means such as tightenable lacings or strings that crisscross the mattress, or means that are

used to loosen or tighten the support characteristics of springs within the mattress.

(2) Note. Excluded from this subclass are gas filled mattresses that could have their firmness changed by increasing or decreasing the gas pressure, reinforced mattresses that have a rigid layer or plate within them, and mattresses that have a plurality of sections of different firmnesses.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 701, for reinforced mattresses that have a rigid layer of plate.
- 706+, for gas containing mattresses.
- 727+, for mattresses that have a plurality of sections of different firmnesses.
- 936, for devices that have springs of variable or adjustable support characteristics.

#### SEE OR SEARCH CLASS:

267, Spring Devices, subclass 177 for a coil spring including an adjustable end thrust member to vary the thrust reaction.

### 698 With fireproof material:

This subclass is indented under subclass 690. Mattress having at least a part of which is formed from a material which is resistant to burning.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 483, for fireproof bed clothing.
- 700, for insulating mattresses that may be fireproof.
- 954, for materials having fire resistance used in making devices of the class definition.

### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 443+ for composite laminate including asbestos and subclasses 920+ for fire or heat protection feature.

## 699 Having waterproof or allergenproof outer surface:

This subclass is indented under subclass 690. Mattress comprised of material(s), on at least a substantial top portion thereof, that prevents the passage of liquid or spores, dust, insects, etc. therethrough.

- (1) Note. A part of the top portion of the mattress may be made from an inherently waterproof material, may have been chemically or physically treated to be waterproof, or may have been provided with an integral waterproof covering portion, primarily to prevent the passage of liquids into or through the body of the mattress.
- (2) Note. Removable covers or tickings that may incidentally be made from water resistant materials are excluded from this subclass.
- (3) Note. The mattress top, or cover thereof, may permit the passage of gasses, vapors, and microscopic particles, such as bacteria, but will prevent the passage of liquids.
- (4) Note. This subclass includes allergenproof mattresses that in addition to preventing the passage of liquids into and out of the mattress, will prevent the passage of allergens, such as mite and mite feces.
- (5) Note. Gas containing mattresses, which inherently prevent the passage of liquids, are excluded from this subclass.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 420, for a padded ground mat.
- 484, for waterproof bed clothing.
- 655, for infant supports that often are provided with waterproof surfaces.
- 656, for supports used outdoors that may have waterproof covers.
- 706+, for gas containing mattresses.
- 737+, for removable covers or tickings that may be made from water resistant materials.

939, for devices that comprise microporous materials.

#### SEE OR SEARCH CLASS:

441, Buoys, Rafts, and Aquatic Devices, subclass 128 for a waterproof mattress or cushion having (a) special features convertible to a life raft or (b) a special shape or fastening means to enable conforming to or securing a person's body.

### 700 Insulating:

This subclass is indented under subclass 690. Mattress disclosing the use of materials that are especially used to provide a thermal barrier between the user and the support of the mattress or the surrounding environment, for the purpose of minimizing heat loss from the user, thereby keeping the user warm.

- (1) Note. While most material used in making mattresses have insulating properties, with insulating properties being a matter of degree, the materials used in the patents in this subclass have been chosen especially for their insulating properties.
- (2) Note. Patents that include thermally reflecting layers, such as metals or laminates, are included in this subclass.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 413, for sleeping bags that often include insulating materials.
- 420, for ground mats.
- 656, for supports used outdoors.
- 668, for waterbeds with insulating means.
- 698, for fireproof mattresses, that can include insulating materials.
- 948+, and especially subclass 949 for wool containing devices, subclass 950 for feather or down containing devices, subclass 952 for artificial fiber containing devices, and subclass 953 for foam containing devices.

# 701 Rigid plate or layer reinforced, with uniform, fixed supporting characteristics across top surface:

This subclass is indented under subclass 690. Mattresses disclosing the use of a single firm layer or plate, or a plurality of smaller, firm elements provided within or integrally on top of the mattress, to stiffen the support characteristics of the mattress, the mattress having homogeneous or constant support characteristics across its top supporting surface.

 Note. Excluded from this subclass are mattresses that have reinforcing means such as slats located only in selected portions, in order to provide different support characteristics for different portions of the mattress.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

727+, for mattresses that have sections of different support characteristics.

## 702 Having fluent, particulate solid filler (e.g., beads):

This subclass is indented under subclass 690. Mattresses in which at least a portion thereof is filled with a large number of small particles (e.g., beads) of particulate material, that flow or realign with respect to one another upon a user exerting pressure upon the mattress.

- (1) Note. The particulate solid may be sand, spheres of plastic, metal, ceramic, wood, beans, or other similar materials, usually enclosed in a container.
- (2) Note. Excluded from this subclass are fluidized beds, in which beads are lifted or suspended by a stream of high pressure gas.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 644, for support means useable with an invalid bed or surgical support filled with a fluent material.
- 654, for a support especially adapted to be seated on, filled with a fluent material.
- 655.4, for supports for a user's body or part thereof containing flowable particulate solid fillers.

689, for fluidized beds.

911, for devices containing flowable beads.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclass 452.17 for a one-piece "bean bag" type cushion.

### 703 Having handle:

This subclass is indented under subclass 690. Mattresses with a means attached thereto which can be manually grasped to facilitate manipulation of the mattress.

## 704 Combined with means providing ventilation:

This subclass is indented under subclass 703. Mattress combined with an aperture permitting circulation of air between the interior and the exterior of the mattress.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

724+, for mattress having ventilation means.

### **705** Convertible:

This subclass is indented under subclass 690. Mattress adapted to be converted to a device other than a mattress (e.g., usually another body supporting device such as a seat, chair, foot support, exercising device, bathing device, or the like).

- (1) Note. The mattresses in this subclass may be converted to other devices by repositioning or rearranging portions of the mattress relative to each other, possibly with adding additional structural elements to accomplish the conversion to the new device.
- (2) Note. Excluded from this subclass are mattresses that have sections that are connected or connectable to each other in a manner to permit the folding or stacking of the sections in order to save on the storage space needed or to facilitate transportation.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

722+, for mattresses having sections that are rearrangeable or repositionable relative to each other.

### 706 Having confined gas (e.g., air mattress):

This subclass is indented under subclass 690. Mattress including a flexible container that yieldably contains a fluid having neither independent shape nor volume but tends to expand indefinitely, usually air, to provide a yieldable supporting area for at least a portion of a user's body.

- (1) Note. While the mattress as a whole is sized to support the whole of a user's body, the gas containing flexible container may comprise only a part of the whole mattress, thereby providing support only for a selected portion of the user's body, or provide only part of the supporting structure for the whole of the user's body, with other materials (e.g., springs, foam) providing additional support for a user's body.
- (2) Note. The gas within the flexible container provides substantial support for the user, with the container being generally impervious to gases, the gas generally confined within the flexible container, and not expelled upon the weight of a user pressing on the flexible container, with the exception of subclasses 708, 712, and 713 defined below.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 644, for support means for discrete portions of a user, containing fluent material.
- 654, for supports especially adapted for seating that contain fluent materials.
- 655.3, for supports for a user's body or part thereof that are inflatable.
- 932, for seals and sealing methods used with plastic devices.

#### SEE OR SEARCH CLASS:

- 141, Fluent Material Handling, With Receiver or Receiver Coacting Means, subclass 65 for an evacuation apparatus and subclass 114 for manipulation of flexible or collapsible receiver.
- 428, Stock Material or Miscellaneous Articles, subclass 12 for a collapsible article.

441, Buoys, Rafts, and Aquatic Devices, subclasses 129+ for buoyant devices that can be mattresslike devices, especially adapted (e.g., with straps) to aid a user in floating on water.

## 707 Fixed amount of gas (e.g., permanently sealed container):

This subclass is indented under subclass 706. Mattress having confined gas in which a fixed amount of gas is permanently sealed in an impervious container that lacks a valve or other means to add or release gas.

### 708 With integral manual pump (e.g. foot type):

This subclass is indented under subclass 706. Mattress having confined gas including an integral pump means, operable by the hands or feet of a user, adapted to inflate and/or deflate the mattress.

- (1) Note. The integral pump is often, but not necessarily, built into the mattress and is inseparable therefrom.
- (2) Note. The pump is a simple mechanical device, with the force that actuates the pump being supplied by the hands or feet of the user.
- (3) Note. This subclass excludes complex motor (e.g., electrical) pumps.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

714, for mattresses having variably pressured chambers, that often include complex, motor-operated pumps.

### SEE OR SEARCH CLASS:

417, Pumps, subclasses 234+ for ambulant pump and subclasses 437+ for expansible chamber-type pump.

### 709 With solid filler (e.g., foam, spring, fiber):

This subclass is indented under subclass 706. Mattress having a confined gas in which the flexible container, in addition to a gas, contains a solid filler that provides support for a user of the mattress.

(1) Note. This subclass includes camping mattresses that can be rolled up or compacted by expelling air from the solid

filler (e.g., porous foam) within the mattress, which the mattress, upon unrolling to its full size, will absorb air and fill up to its original uncompacted size and shape.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

420, for padded ground mats that may be air containing and compactible.

## 710 Including plural, separately inflatable, distinct gas containing compartments:

This subclass is indented under subclass 706. Mattress having a confined gas which comprises at least two separate and distinct containers, that can be inflated independently of each other to different pressures, and lack air supply means (e.g., pumps) that can automatically alternate or change the pressures within the containers.

- (1) Note. The separate and distinct compartments may be of any shape, are usually adjacent to each other, and have their own separate valves permitting independent inflation and deflation.
- (2) Note. Excluded from this subclass are mattresses that have a plurality of adjacent chambers including air supply means (e.g., pumps) that can automatically change or alternate the pressures within the chambers.
- (3) Note. Two adjacent gas containing mattresses that have means (e.g., valves) to separately inflate them to different pressures to form a bed that can have a firm and a less firm portion are included in this subclass.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 711, for mattresses having multiple compartments, defined by upper and lower surfaces, and spaced elongated dividing strips, with the compartments being in fluid communication with each other.
- 713, for mattresses having variably pressurizable chambers, in which fluid supply means (e.g., pumps) can auto-

matically change or alter the pressures within the chambers.

## 711 Having dividing strip (e.g., parallel or slanted):

This subclass is indented under subclass 706. Mattress having a confined gas wherein the container has an upper and lower surface when filled, and the surfaces are internally attached to each other by at least one elongated strip, or a plurality of elongated strips extending in a spaced, side-by-side fashion and dividing the mattress into a plurality of compartments that are in fluid communication with each other.

- (1) Note. The strip or strips may be vertical or slanted, must have some substantial length and height, measured across the length or with of the container to thereby divide the containers into multiple chambers that are in fluid communication with each other.
- (2) Note. Excluded from this subclass are containers that have dividing strips that divide the containers into separate and distinct compartments that are not in fluid communication with each other.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 682, for liquid containing, flexible containers (waterbeds) that have dividing strips or baffles that prevent the sloshing of liquid within the container.
- 710, for containers having dividing strips creating separate and distinct compartments that are not in fluid communication with each other.

### 712 Having tie or internal seal:

This subclass is indented under subclass 706. Mattress having a confined gas wherein an interior surface of the container is connected to another interior surface of the container at selected points or a seal line by a device that connects, fastens, or secures the surfaces.

Note. Mattresses in which the upper wall
of the container is sealed, at selected
points, to a lower wall of the container
are included in this subclass.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

682, for liquid containing, flexible containers (waterbeds) that have dividing strips or baffles that prevent the sloshing of liquid within the container.

## 713 Variably pressurizable chambers (e.g., with pump):

This subclass is indented under subclass 706. Mattress having a confined gas comprised of a plurality of inflatable chambers or cells, or groupings of chambers or cells, in which at least some of the chambers or groupings can have their support characteristics automatically changed, with the aid of air supply means, such as pumps, or some of the chambers or groupings can be alternately inflated and deflated, to thereby provide an alternately inflating and deflating supporting surface.

- (1) Note. Mattresses in this subclass either explicitly include pump means, or are designed to be used with pump means that are especially adapted to be used with mattresses of this subclass.
- (2) Note. The chambers may have slightly porous walls that permit a slow leakage of gas (e.g., air) to increase the comfort of the user; such mattresses, known as low air loss beds, are included in this subclass.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

714, for inflatable mattresses with substantial ventilation or gas loss, that have a highly porous or apertured upper surface, permitting substantial gas leakage.

### 714 With substantial ventilation or gas loss:

This subclass is indented under subclass 706. Mattress having a confined gas in which at least a portion of an upper, user supporting surface of the container is made from a highly porous material, or contains apertures, that permit a substantial leakage of gas, for the purpose of cooling or warming the user, or preventing bedsores.

(1) Note. Excluded from this subclass are mattresses having a plurality of chambers which incidentally permit the loss of gas through their porous covers (e.g., low air loss beds) and which are primarily concerned with either easily changing, alternating, or maintaining the support characteristics of a part or the whole mattress.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 423, for devices under the class definition including heating or cooling with forced air.
- 713, for air mattresses having variably pressurized chambers that may incidentally leak gas through a porous cover.
- 726, for mattresses, other than air mattresses, that have means, such as a fan, to force ventilation.

### 715 Adapted to turn or move user:

This subclass is indented under subclass 706. Mattress having a confined gas which has a plurality of inflatable chambers that are adapted to incline, turn, or substantially move a patient from a first position to a second, different position, and possibly back to the first initial position.

(1) Note. The substantial movement, inclining, or turning of the user is generally accomplished by inflating and/or deflating various chambers to change their size and/or shape, thereby causing the user to be substantially moved.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 81.1+, for invalid lift and transferring devices.
- 615, for sectional invalid beds or surgical supports that comprise fluid inflatable bags adapted to adjust the position of the support section of the bed or surgical support.
- 660, for attachments or accessories that when positioned between a mattress and its supporting surface will incline the mattress or a portion thereof.

### 716 Having innerspring-type core:

This subclass is indented under subclass 690. Mattress containing a plurality of coiled wire members that provide substantial support for a user and will temporarily compress when a user's weight is placed on the mattress, the members being enclosed by an upholstery material, such as a ticking, and usually including a padding material (e.g., batting or foam) above the members and below the ticking.

(1) Note. The patents in this subclass comprise coiled springs of the type defined by a helical strand of material.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 230+, 239+ and 246+, for a bed bottom disclosing structure framing or metallic connections of springs.
- 642, for pillow-type head supports that include springs.
- 654.1, for seat cushion-type supports comprising spring means.
- 655.7, for spring containing supports for a user's body or part thereof.
- 936, for devices having springs with adjustable firmness.

### SEE OR SEARCH CLASS:

267, Spring Devices, subclasses 80+ for a spring panel.

### 717 With substantial edge, border, or side features:

This subclass is indented under subclass 716. Innerspring-type core mattress including ample structural elements positioned at peripheral portions of the pad to provide reinforcement, additional support, or ventilating means.

 Note. Mattresses that have their edge portions reinforced to provide a sturdy area adapted to support a user sitting on the edge of the mattress are included in this subclass.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

704, and 724+, for nonspring mattresses that have ventilating features.

739, for nonspring mattresses having means to form or strengthen their edges or borders.

### 718 Substantially filled with foam:

This subclass is indented under subclass 716. Innerspring-type core mattress wherein an ample portion of the spaces between individual coiled wire members or group of coiled wire members are filled with an expanded cellular material, with the expanded cellular material and the members together providing support for a user upon their compression.

- (1) Note. The use of foam layers on top of the springs, or at peripheral portions of the mattress, is not sufficient for classification in this subclass.
- Note. Subject matter in this subclass are, in effect, hybrid spring and foam mattresses.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

- 655.7, for foam body supports not containing any springs.
- 740, for foam mattresses not containing any springs, that have an unusual foam, or having conventional foams configured in an unconventional way.

### 719 Noncoil spring element:

This subclass is indented under subclass 716. Innerspring-type core mattress in which at least one of the spring elements, providing support for a user of the pad, is a form different than the wire member of the helical strand-type material.

(1) Note. The incidental use of a noncoil spring (for example, interconnecting a plurality of coil springs), wherein the noncoil spring does not compress and provides support for a user, is not sufficient for classification in this subclass.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

247, and 255, for nonspiral springs used in bedsteads.

#### SEE OR SEARCH CLASS:

267, Spring Devices, subclasses 113+ for fluid springs.

#### 720 Compartmentalized:

This subclass is indented under subclass 716. Innerspring-type core mattress in which the coiled wire core is made up of individual coiled wire members or small groups of coiled wire members separated by partitions.

(1) Note. Usually individual or small groups of springs are enclosed in a clothlike cover to isolate the individual springs, or group of springs from other springs.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

655.8, for body supports comprising compartmentalized spring devices.

## 721 With substantial, firm, top insulator or reinforcing grid on spring core:

This subclass is indented under subclass 716. Innerspring-type core mattress including (a) a relatively hard separator between the coiled wire member core and the pad ticking to prevent the coiled wire members within the core from penetrating the surface or (b) including a hard element such as a wire grid or rigid board to provide reinforcement for at least a portion of the top supporting surface spaced from the periphery of the pad.

### SEE OR SEARCH CLASS:

267, Spring Devices, subclasses 83+ for superposed layers, metal and nonmetal.

### 722 With distinct movable sections:

This subclass is indented under subclass 690. Mattress having discrete portions that can be repositioned relative to each other as by bending, folding, sliding, replacing, or temporarily removing the portion, to thereby change the shape, size, or thickness configuration or support characteristics of the pad.

 Note. Mattresses that have removable inserts such as slats, plates, or plugs, used to change the <u>firmness</u> of the mattress are classified elsewhere.

- (2) Note. This subclass includes large, multiple user accommodating mattresses that are formed from two smaller mattresses connected with a connector element or housed within a large, enveloping or framing structure.
- (3) Note. This subclass includes mattresses that have removable or repositionable portions or sections that provide a cavity over which a portion of a user's body may be supported without being contacted by supporting materials to thereby prevent or alleviate bed sores.
- (4) Note. This subclass includes mattresses with means to facilitate folding or rolling up.
- (5) Note. This subclass includes mattresses with a malleable bar, or the like embedded within the mattress and adapted to be bent to thereby change the shape of the mattress.

## SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 661, for a removably connectable bed attachment that is adapted to extend the head or foot portion of a bed.
- 691, for a separate and distinct mattress that may be supported on or removably attached to another mattress.
- 694+, for mattresses that contain or accommodate disparate articles (such as a bedpan) often by providing a removable mattress section.
- 697, for mattresses having uniform firmness across their supporting surface, that have means to adjust their firmness.
- 706+, for inflatable gas containing mattresses that may have distinct movable sections.
- 729+, for mattresses that have removable slats, plates, plugs, slits, grooves cutouts or cavities provided to alter the firmness of a portion of the mattress.
- 738, for mattresses having easily openable covers or tickings that permit the addition or removal of filling materials.

922, for devices that use hook-and-looptype fasteners.

### 723 With separable fastener for connection to each other or to base:

This subclass is indented under subclass 722. Distinct movable mattress section in which the separate portions of the pad have a detachable coupler to permit release from each other to a foundation or foundation portion.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

691, for mattresses supported on or removably attachable to another mattress.

#### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclasses 572+ for separable fastener or required component thereof.

### 724 Ventilated or permitting substantial air passage:

This subclass is indented under subclass 690. Mattresses having an aperture or channel permitting circulation of a gas (e.g., air) between the interior and exterior to enhance the comfort of a user.

- (1) Note. The aperture or channel means in the mattress must permit substantial movement in and out of the mattress. The use of a porous cover or ticking on a mattress, or the use of a conventional porous foam as the filler, that inherently permit movement of air through their pores, is not sufficient for classification in this subclass.
- (2) Note. Excluded from this subclass are slits, grooves, or cutouts on a mattress surface provided for localized altering of the firmness of the mattress.
- (3) Note. Excluded from this subclass are mattresses with channels, grooves, peaks, or valleys on a mattress top surface that may inherently provide a ventilation user supporting top surface.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

652.1+, for supports with ventilation or forced ventilation.

- 704, for mattresses in which the handle means are provided with means providing ventilation.
- 716, for spring mattresses that have edge or border features that may include ventilating means.
- 727, for slits, grooves, or cutouts on a mattress surface provided for localized altering of the firmness of the mattress.
- 730, and 736, for channels, grooves, peaks, or valleys on a mattress top surface that may inherently provide a ventilation user supporting top surface.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclasses 180.1+ for ventilated chairs and seats.

#### 725 In head supporting area for breathing:

This subclass is indented under subclass 724. Ventilated mattress wherein apertures or channels are provided in the human skull bearing portion of the pad to facilitate respiration of a generally prone user.

(1) Note. Included in this subclass are mattresses provided with ventilating apertures in their head supporting area to prevent suffocation of infants.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 638, for pillow-type devices that have means permitting the passage of air for breathing.
- 655, for supports especially adapted for supporting infants.

#### With means to force ventilation (e.g., fan):

This subclass is indented under subclass 724. Ventilated mattress including means such as a fan or air pump to propel air into or out of the pad.

(1) Note. Excluded from this subclass are air mattresses.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 423, for devices to force heated or cooled air.
- 652.2, for cushion supports with forced ventilation.

- 713+, for air mattresses that may incidentally ventilate a user.
- 941, for blankets that provide a forced air flow to a user.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, subclass 180.13 for seats and chairs ventilated with forced air.

#### 727 Sectional with regard to firmness:

This subclass is indented under subclass 690. Mattress having a body supporting section with a different compressibility or body support characteristics from another section either lengthwise, widthwise, or heightwise of the pad.

- (1) Note. The mattresses in this subclass generally have a planar top supporting surface and generally provide a firmer portion for the heavier midsection of the human body, or in the case of a mattress adapted to support two users, one longitudinal section of the mattress may be less firm than the adjacent longitudinal section to provide a softer portion for one of the users.
- (2) Note. Included in this subclass are reversible mattresses that have plural homogeneous layers of different support characteristics, one on top of the other.
- (3) Note. <u>Excluded</u> from this subclass are inflatable mattresses that have sections inflatable to different firmnesses.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 710, especially subclass 714, for inflatable mattresses that have sections inflatable to different firmnesses.
- 716+, for spring containing mattresses that have sections with different firmnesses.

#### 728 Comprising horizontal firm slatlike or platelike inserts:

This subclass is indented under subclass 727. Sectional firmness mattress containing permanent or removable, generally rigid slats or plates positioned only in selected portions of

the mattress to selectively alter the firmness of the mattress.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

701, for mattresses with homogeneous or constant support characteristics across its top surface that contain rigid plates.

#### 729 Comprising vertically oriented insert:

This subclass is indented under subclass 727. Sectional firmness mattress including permanent or removable, generally upright arranged stiffening inserts or plugs that are usually cylindrical.

### 730 Comprising a firmness altering slit, groove, cutout, or cavity:

This subclass is indented under subclass 727. Sectional firmness mattress in which a narrow aperturelike portion is provided on the pad top supporting surface, or through the mattress in order to provide supporting portions of different characteristics in the pad.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 724, for mattresses with channels provided inside the mattress to facilitate ventilation by providing a path for air to move in and out of the mattress.
- 736, for mattresses having hills or peaks, separated by valleys.

#### 731 Nonplanar top surface:

This subclass is indented under subclass 690. Mattress in which a portion of the user contact area has discreet protuberances and indents.

- (1) Note. The mattresses in this subclass provide at all times a nonplanar supporting surface and do not have adjustable and repositionable sections that can transform the nonplanar or contoured top surface to a planar top surface.
- (2) Note. Excluded from this subclass are invalid beds and surgical supports that may present nonplanar invalid supporting surfaces.
- (3) Note. Excluded from this subclass are support means, such as pillowlike

devices that are removably useable on top of a mattress (or other body supports).

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 600+, for invalid beds and surgical supports that may present nonplanar invalid supporting surfaces.
- 630+, for support means, such as pillowlike devices that are removably useable on top of a mattress (or other body supports).
- 694+, for mattresses with disparate article (such as a bedpan) that may have cavities or the like to accommodate disparate articles.
- 706+, for air mattresses that may present a nonplanar user supporting surface.
- 722+, for mattresses with distinct adjustable or repositionable sections, in which sections may be manipulated to alter the mattress top from a planar to a nonplanar mode.
- 730, for mattresses that are sectional with regard to firmness that have slits, grooves, cutouts, or cavities to alter their firmness.
- 944, for devices that have upstanding firm projections.

#### 732 With sideguard:

This subclass is indented under subclass 731. Nonplanar mattress surface which has a substantial raised peripheral portion, usually at least at one side thereof, usually to prevent a user from rolling off the pad.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

424, for safety devices.

425+, for sideguards useable with beds.

655+, for supports especially adapted for infants.

#### 733 With head, back, or arm support:

This subclass is indented under subclass 731. Nonplanar mattress top surface in which the pad accommodates a user's upper torso portion or extremities, often in a raised or lowered configuration relative to other body portions of the user.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 621+, for invalid beds or surgical supports with upper body supporting or restraining areas.
- 632+, for simultaneous supporting devices for multiple body portions that are removably positionable on the top surface of a mattress or other body support.
- 638, for head or neck support with means to permit the passage of air for breathing.
- 646+, for arm or hand supports.
- for ventilated mattresses providing means in the head supporting area of the mattress for breathing by a prone user.

#### With foot or leg support:

This subclass is indented under subclass 731. Nonplanar mattress top surface in which the pad accommodates a user's lower torso or extremities, often in a raised or lowered configuration relative to other body portions of the user.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 624, for invalid beds or surgical supports with lower body portion supporting or restraining means.
- 648+, for lower body supporting devices that are removably positionable on the top surface of a mattress or other body support.

#### 735 With abdomen or breast support:

This subclass is indented under subclass 731. Nonplanar mattress top surface in which the user contacting face accommodates a protruding midsection or mammary section.

(1) Note. This subclass includes mattresses especially adapted to support a pregnant user.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

631, for pregnant abdomen supporting devices that are removably positionable on a mattress or other body support.

930, for devices for pregnant users.

### 736 With hills or peaks separated by valleys (e.g., egg crate type):

This subclass is indented under subclass 731. Nonplanar mattress top surface in which at least a portion of the user contacting face has a pattern of protuberances totally surrounded on all sides by lowered surfaces, defining a surface that resembles an egg crate.

- (1) Note. Hills or peaks may have rounded or flat tops and are often made by a foam convoluter.
- (2) Note. Excluded from this subclass are mattresses that have surfaces in which raised portions are separated by closely spaced, parallel, lateral, or longitudinal (but not both lateral and longitudinal) grooves or slits, to thereby provide an undulating surface.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 691, for mattresses or pads, removably attachable to the top of another mattress, that may provide an egg-crate-type supporting surface.
- 724, for mattresses providing ventilation, that may provide an egg-crate-type surface.
- 731, for surfaces in which raised portions are separated by lateral or longitudinal (but not both) grooves or slits, to thereby provide an undulating surface.
- 944, for devices that have upstanding, firm massaging projections on their top user supporting surface.

#### 737 Having atypical outer covering or ticking:

This subclass is indented under subclass 690. Mattress containing a specific property or material of the exposed surface of the pad that surrounds the inner core.

(1) Note. This subclass is for unconventional and unusual material for single or multiple coverings or tickings, or the manner in which the covering or ticking is attached to the mattress, or the configuration (e.g., extreme looseness) of the covering relative to the mattress core.

(2) Note. This subclass excludes merely conventional waterproof coverings, conventional fireproof coverings, or conventional tufted coverings.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 402+, for the combination of a bottom and an upholstered pad (i.e., mattress or cushion) which has means to hold the upholstery to the bottom or pad.
- 484, for waterproof covering.
- 490, for pillow covers.
- 501, for coverings for bedclothes.
- 655.6, for cushion-type supports, in which the covering is attached to the core by tufting.
- 696, for tufted mattresses, in which a covering is attached to a mattress core by tufting.
- 698, for mattresses with fireproof materials, in which the covering may have fireproof properties.
- 699, for waterproof mattresses, in which the covering of the mattress is usually waterproof.
- 738, for mattresses having tickings that are easily openable for the addition, removal, or replacement of filler materials.
- 739, for edge, corner, or border features, such as edge rolls, that may be provided on a mattress cover or ticking.
- 939, for devices that have a microporous cover.

#### 738 With easily openable cover or ticking:

This subclass is indented under subclass 690. Mattress in which the cover or ticking is especially adapted for quick access to permit removal, replacement, or addition to at least part of the inner core of the pad.

- (1) Note. The cover or ticking usually includes separable fasteners that permit easy opening and closing of the cover or ticking.
- (2) Note. Unlike the mattresses with distinct movable sections, where whole separate and distinct sections or units are removable from the mattress, a mattress placed in this subclass is not formed from sepa-

rate and distinct sections or units, but is filled with a homogeneous "stuffing" material or the whole inner core is removable through the openable cover or ticking.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 490, for pillowcases that usually have an opening permitting the insertion and removal of the pillow.
- 501, for coverings that usually have an opening permitting the insertion and removal of a bedclothing item such as a quilt.
- 722, for mattresses having separate and distinct sections, movable within the mattress, or removable from the mattress

## 739 Having substantial means to form or strengthen the edge, border, or corner of the mattress:

This subclass is indented under subclass 690. Mattress having a substantial structural feature, internally or externally, that forms the peripheral portion of the pad to reinforce this portion or to provide aesthetic features to the portions.

- (1) Note. Included in this subclass are edge rolls and piping provided at the peripheral edges of a mattress cover.
- (2) Note. Excluded from this subclass are mattresses having bedclothes retaining means, mattresses having handles, innerspring core-type mattresses having substantial edge or side features, and mattresses having sideguards.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 657.5, for body supports with edge roll, cord, or welt.
- 692, for mattresses having bedclothes retaining means.
- 703, for mattresses having handles.
- 717, for innerspring core-type mattresses having substantial edge or side features
- 732, for mattresses having sideguards.

### 740 With unusual foam material or configuration:

This subclass is indented under subclass 690. Mattress in which at least part of the mattress is composed of an expanded cellular substance having unconventional physical or chemical properties.

- (1) Note. Since expanded cellular foams are conventional materials of construction for mattresses, classification in this subclass requires some inherently unconventional chemical or physical property of the foam, or the foam must have been modified by the addition of other materials to exhibit an unconventional physical or chemical property.
- (2) Note. Unusual foam configurations can include the use of chunks, chips, layers, blocks, or unusual shapes and sizes of conventional foams, or an unusual aggregation, such as layering of conventional foams.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 655.9, for cushion-type supports comprising foam materials.
- 953, for body supports having unusual foam material or configuration.

#### SEE OR SEARCH CLASS:

- 297, Chairs and Seats, digest 1 for chairand seat-type devices that have foam components.
- 428, Stock Material or Miscellaneous Articles, subclasses 304.4+ for composite material having voids in a component.

#### CROSS-REFERENCE ART COLLECTIONS

#### 900 BATHTUB OR BED:

Collection of documents disclosing beds which are convertible to a bathtub.

#### SEE OR SEARCH CLASS:

4, Baths, Closets, Sinks, and Spittoons, subclasses 571.1+ for tubs having various supports combined therewith.

#### 901 MATTRESS OR PAD WITH A CONVO-LUTED (E.G., EGG CRATE) SURFACE:

A collection of documents under 900.5, wherein at least a portion of the supporting surface comprises a pattern of protrusions, or bumps and valleys, or cavities that simulates the shape of the lower portion of an egg container.

(1) Note. Most of the patents in this collection are supports made by cutting a foam slab with a convoluter.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

740, for mattresses comprising foam material.

#### 902 MATTRESS WITH NONRECTANGU-LAR SUPPORTING SURFACE:

A collection of documents disclosing supports for substantially the whole body of a user in which the shape, seen in a top view, of the supporting surface is not of the conventional rectangular shape.

(1) Note. The supporting surface, in a top view may be circular, oval, square, heart shaped, etc.

#### SEE OR SEARCH CLASS:

D6, Furnishings, subclasses 595+ for design features relating to mattresses.

#### 904 WITH SOUND EMITTING MEANS:

This subclass is indented under the class definition. A collection of documents disclosing sound emitting means associated with a device.

- (1) Note. The sound emitting device may be a speaker, a music box, or a toy, that makes an audible sound.
- (2) Note. A TV set, which has a speaker built into it would be included in this collection.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

for pillows with disparate articles, including sound emitting devices.

666, for waterbeds with sound or light means.

#### SEE OR SEARCH CLASS:

381, Electrical Audio Signal Processing Systems and Devices, subclasses 300+ for stereo speaker arrangement.

#### 905 WITH LIGHT EMITTING MEANS:

This subclass is indented under the class definition. A collection of documents disclosing light emitting means associated with a device.

(1) Note. The light emitted may be sufficient to permit an activity such as reading or it may be merely enough for amusement, such as rapidly flashing tiny lights, strobe lights or phosphorescent strips.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

666, for waterbeds with sound or light means.

#### SEE OR SEARCH CLASS:

362, Illumination, subclass 130, for illuminating devices useable with beds.

607, Surgery: Light, Thermal, and Electrical Application, subclasses 1+ for lights used for therapeutic purposes for patients supported on a bed.

#### 906 WITH MAGNETIC MEANS:

This subclass is indented under the class definition. A collection of documents disclosing a permanent magnet or an electro-magnet associated with a device.

(1) Note. The presence of a magnet that is part of a motor associated with the device is not sufficient to bring the document in this collection.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

693, for mattresses with magnetic means.

#### SEE OR SEARCH CLASS:

600, Surgery, subclasses 9+ for magnetic devices used for therapy.

#### 907 WITH DECORATIVE STRUCTURE:

This subclass is indented under the class definition. A collection of documents disclosing a structural element, associated with a device, with a primarily decorative function.  Note. A color scheme or design on a device is not sufficient of a "structural element" to bring a document in this collection.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

280, for bedstead with ornamental inserts.

#### SEE OR SEARCH CLASS:

D6, Furnishings, appropriate subclasses for ornamental structures associated with devices under the class definition.

#### 908 Mirror:

This subclass is indented under subclass 907. A collection of documents disclosing the use of a mirror associated with a device of the class.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

280, for bedstead with a mirror.

#### SEE OR SEARCH CLASS:

- 297, Chairs and Seats, subclass 185, with mirror.
- 312, Supports: Cabinet Structure, subclasses 224+ for cabinets with mirrors.

#### 909 FLOWABLE VISCOUS (E.G., GEL) MATERIAL CONTAINING:

A collection of documents disclosing a viscous or gel-like fluid associated with a device of the class.

(1) Note. The fluid must be more viscous than water and it is usually a liquid with or without additives to make it more viscous than water.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 644, for support means useable with an invalid bed or surgical support, filled with a fluent material.
- 654, for a support especially adapted to seated on, filled with a fluent material.
- 655.5, for supports containing liquid or gel.
- 706+, for mattresses filled with fluent materials.

#### 910 WITH SUCTION MEANS:

A collection of documents disclosing gas suction means associated with a device of the class.

- (1) Note. This collection includes supports in which the firmness or size of the support is adjustable by withdrawing a gas from the support.
- (2) Note. The collection excludes supports in which the support is filled with beads or with a liquid.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 913, for suction means associated with a bead containing support.
- 918, for waterbeds having pumps adapted to circulate the liquid in the bed.

#### 911 BEAD CONTAINING:

A collection of documents disclosing a body support having at least a portion thereof filled with a large number of small particles of particulate solid material, that adapted to "flow" relative to one another as a fluent material.

(1) Note. The particulate solid may be sand, spheres of plastic, metal, ceramic, wood etc., beans or other similar materials, usually enclosed in a container.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 644, for support means useable with an invalid bed or surgical support, filled with a fluent material.
- 654, for a support especially adapted to be seated on, filled with a fluent material.
- 689, for fluidized beds.
- 702, for mattresses filled with solid fluent materials.

### 913 BEAD CONTAINING AND SUCTION MEANS:

This subclass is indented under the class definition. A collection of documents having a suction means, such as a pump, to remove the air from an impermeable container filled with "beads" thereby preventing the movement of the "beads", thus rigidifying the container.

(1) Note. This collection includes body supports filled with beads that can be custom fitted to a particular user by placing the user on a "bead" filled impermeable container, permitting the beads to rearrange themselves under the weight of the user, and applying a suction to the container, thereby "setting" the beads in an arrangement adapted to the contour of the body of the particular user.

#### 915 WITH VIBRATING MEANS:

This subclass is indented under the class definition. A collection of documents disclosing a vibrator associated with a device.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

108, and 109, for cradles with rocking means.

674, for waterbeds with vibrating means.

#### SEE OR SEARCH CLASS:

601, Surgery: Kinesitherapy, subclasses 49+ for vibrating devices used for therapeutic purposes.

### 922 WITH HOOK AND LOOP TYPE FASTENER:

This subclass is indented under the class definition. A collection of documents disclosing the use of hook and loop type fasteners.

#### 923 Bedclothing:

This subclass is indented under subclass 922. A collection of documents disclosing the use of hook and loop type fasteners with a bedclothing item such a sheet, blanket or pillowcase.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

482+, for specific bedclothing items.

#### SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclass 72.5 for bedclothes fasteners, and other appropriate subclasses.

297, Chairs and Seats, Digest 6, for hook and loop type fasteners used with chairs and seats.

#### 924 CARDBOARD CONTAINING:

This subclass is indented under the class definition. A collection of document disclosing the use of cardboard as the material of construction of at least a portion of a device.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

951, for paper containing devices.

#### 925 HIGHLY FRICTIONAL MATERIAL:

This subclass is indented under the class definition. A collection of documents disclosing the use of a rough material that provides a lot of friction, in association with a device, or in constructing at least a portion of a device under the class definition.

Note. The use of a conventional frictional material in a brake portion of a caster wheel used with a device under the class definition would not be sufficient to bring the document in this collection.

### 926 LOW FRICTION (E.G., SLIPPERY) MATERIAL:

This subclass is indented under the class definition. A collection of documents disclosing the use of a slippery material that provides a very low friction, in association with a device, or in making at least a portion of a device under the class definition.

(1) Note. The use of a conventional low friction material, such as a nylon bushing, between the moving parts of a motor used with a device under the class definition would not be sufficient to bring the document into this collection.

#### 927 SOFA BEDS WITH MOTOR MEANS:

A collection of documents disclosing the use of motor means in operating portions of sofa beds in subclasses 12.1 to 50 of Class 5.

### 928 WITH SPRINKLING OR WASHING MEANS:

This subclass is indented under the class definition. A collection of documents disclosing the use of water in sprinkling or washing the user of a device supported on a support. (1) Note. The sprinkling of a user is usually to cool or amuse the user.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 633, for invalid beds or surgical supports with drain means.
- 656, for body supports especially adapted for outdoor use.

#### SEE OR SEARCH CLASS:

- Baths, Closets, Sinks, and Spittoons, appropriate subclasses for bathing and showering devices.
- 239, Fluid Sprinkling, Spraying, and Diffusing, appropriate subclasses, for sprinkling devices.

#### 929 FACILITATING SEXUAL RELATIONS:

This subclass is indented under the class definition. A collection of documents disclosing the use of devices which are particularly adapted to support at least a portion of at least one user to facilitate sexual relations.

 Note. Conventional devices under the class definition, such as conventional beds or pillows, which are inherently adapted to facilitate sexual relations, are to be excluded from this collection.

#### 930 FOR PREGNANT USER:

This subclass is indented under the class definition. A collection of documents disclosing the use of a device especially adapted to support or comfort a pregnant user.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 631, for support means, adapted to be used with a bed or surgical support, which are adapted to support the abdomen of a pregnant user.
- 735, for mattresses having abdomen (or breast) supports.

#### 931 WITH SAFE OR HIDING PLACE:

This subclass is indented under the class definition. A collection of documents disclosing the use of a safe or concealed hiding place, for valuables, in a device. (1) Note. A mere storage space such as a drawer or an unconcealed pocket would not be sufficient to bring the document in this collection.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 58, for sofa beds with receptacles drawers or compartments.
- 308, for bedsteads with receptacles drawers or compartments.
- 485, for bedclothing items with pocket means.

#### SEE OR SEARCH CLASS:

- 109, Safes, Bank Protection, or a Related Device, appropriate subclasses, for safes.
- 312, Supports: Cabinet Structure, for devices with secret compartments.

### 932 SEALS AND SEALING METHODS, FOR PLASTICS:

This subclass is indented under the class definition. A collection of documents disclosing seals and sealing methods used in joining portions of plastic devices.

 Note. The seals are usually portions of inflatible of water fillable devices under the class definition, and the methods of sealing are usually ultrasonic or dielectric sealing methods or solvent bonding.

#### SEE OR SEARCH CLASS:

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, appropriate subclasses for sealing methods.

#### 933 MASSAGING BED:

This subclass is indented under the class definition. A collection of documents disclosing a device that have discrete, generally rigid portions, that move cyclically relative to the user, to thereby massage at least a portion of the user's body.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 108, and 109, for cradles with rocking devices.
- 915, for supports with vibrating means.

944, for upstanding firm massaging projections.

#### SEE OR SEARCH CLASS:

601, Surgery: Kinesitherapy, subclasses 49+ for vibrating device used for therapeutic purposes.

#### 934 With movable transverse slats:

This subclass is indented under subclass 933. A collection of documents in which the discrete, generally rigid, movable portions are elongated elements that extend from one edge portion of the bed towards its other edge and are generally perpendicular to the longitudinal axis of the bed.

#### 935 WITH ADJUSTABLE FIRMNESS:

This subclass is indented under the class definition. A collection of documents disclosing the use of body supports, with at least a portion of the user supporting surface of the body support having a variable or adjustable support characteristic, firmness or hardness, with the support characteristic, firmness or hardness changeable from one fixed value to another fixed value.

- (1) Note. Fluent material fillable supports, such as air inflatible mattresses, which are inherently adapted to have their firmness varied, by inflation or deflation, are excluded from this collection.
- (2) Note. Supports with removable or replaceable stiffening means such as stiffening boards or rods are excluded from this subclass.

### 936 HAVING SPRINGS WITH ADJUSTABLE FIRMNESS:

This subclass is indented under the class definition. A collection of documents comprising spring devices that have variable or adjustable support characteristics, with the support characteristics of the spring changeable from one fixed value to another fixed value.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 697, for mattresses with uniform firmness that is changeable by the user.
- 716+, for mattresses having innerspringtype cores.

#### SEE OR SEARCH CLASS:

267, Spring Devices, subclass 177 for coil springs including an adjustable end thrust member to vary the thrust reaction.

# 937 BODY SUPPORT WITH LOWERABLE SUPPORT PORTION TO PROVIDE ACCESS TO A PORTION OF THE SUPPORTED BODY:

This subclass is indented under the class definition. A collection of documents disclosing the use of body supports which include a body supporting portion that is lowerable relative to a portion of the user's body to provide access to the user's body for inspection or treatment.

#### 938 WITH REFLECTIVE MATERIAL:

A collection of documents disclosing a light or heat reflective material associated with a device of the class.

- Note. This collection includes devices in which the reflective material is adapted to reflect sunrays to promote the tanning of a user.
- (2) Note. This collection includes the use of thermally reflective materials which reflect the body heat of a user to thereby keep the user warm.
- (3) Note. This collection excludes mirrors.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 417+, for ground mats.
- 483, for fireproof bedclothing that may include thermally reflective materials.
- 656, for supports especially adapted for outdoor use.
- 668, for waterbeds with insulating means that may include thermally reflective materials.
- 700, for mattresses with insulating means.

#### 939 WITH MICROPOROUS MATERIAL:

A collection of documents disclosing the use of a material, usually covering or enclosing a device of the class, that have microscopic pores severely limiting the passage of solids or liquids through said materials.

- (1) Note. This collection includes covers that permit the passage of air, but not the passage of an allergen such as dust, mites, and mite feces.
- (2) Note. This collection includes covers that severely limit the rate of passage of vapors through the cover.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 482+, for bedclothing such as a pillow case, sheet, etc.
- 689, for a fluidized bed in which covers that are porous to gases, such as air, cover small fluidized beads.
- 699, for mattresses that have a waterproof or allergenproof outer surface.
- 737, for a mattress cover.

#### 940 WITH ALARM MEANS:

This subclass is indented under the class definition. A collection of documents disclosing the use of a device, emitting an audio or visual signal to wake up an occupant of a bed or when certain conditions are reached.

(1) Note. The conditions that activate the alarm include the removal or departure of the user of a bed, the reaching of a preset temperature, pressure of humidity condition, or the slipping or removal of a bedclothing item.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

658, for attachments or accessories used with a bed.

#### SEE OR SEARCH CLASS:

340, Communications: Electrical, subclasses 568.1+ for article placement or removal indicating system; and subclasses 573.1+ for human indicating system, especially subclass 575 for sleep indicating system.

#### 941 BLANKET WITH FORCED AIR FLOW:

A collection of documents disclosing the use of generally flexible human body covers, such as blankets, that provide a flow of pressurized air, for the purpose of ventilating, heating, or cooling a user.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

- 423, for devices that provide a flow of forced air for heating or cooling.
- 726, for ventilating mattresses with means to force ventilating air.

#### SEE OR SEARCH CLASS:

- 128, Surgery, subclass 847 for body protecting devices with fluid supply.
- 607, Surgery: Light, Thermal, and Electrical Application, subclasses 104+, especially subclass 107, for thermal applicators.

#### 942 LONGITUDINALLY DIVIDED TOP SUR-FACE WITH PIVOTABLE SECTION:

A collection of documents disclosing body supporting top surfaces that are composed of at least two adjacent longitudinal sections that are pivotally adjustable relative to each other whereby a generally planar supporting surface can be changed to a nonplanar surface with at least one of the plurality of adjacent longitudinal sections being at an angle to other longitudinal sections which support a reclining user.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

37.1+, for sofa beds in which a back supporting section can be pivoted 90° relative to a fixed bed portion to thereby widen the bed surface.

600+, for invalid beds or surgical supports.

### 943 WITH HORIZONTALLY MOVABLE TOP SURFACE:

A collection of documents disclosing user supporting, generally horizontal top surface portions that are adapted to move longitudinally or laterally relative to a base portion, to move the user relative to the base portion, the top portion adapted to be returned to its initial position, which is centered relative to its supporting base portion.

 Note. The movable top portions often move a patient into a cavity in an examining or treating device (e.g., for X-raying) and return the patient to the initial position after examination or treatment.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

81.1+, for invalid lift and transfer devices. 600+, for invalid beds or surgical supports.

#### SEE OR SEARCH CLASS:

108, Horizontally Supported Planar Surfaces, subclasses 102+ for horizontally adjustable surfaces.

### 944 WITH UPSTANDING FIRM MASSAGING PROJECTIONS:

A collection of documents disclosing the use of a plurality of generally rigid projections on a body supporting surface to provide a massaging of a body resting on said projections.

(1) Note. This collection excludes nonplanar body supports in which soft body accommodating projections of foam or the like are adapted to be substantially deformed by a user resting thereon.

### 945 INFLATABLE BABY SUPPORT WITH INFLATABLE PERIPHERAL GUARD:

A collection of documents disclosing the use of inflatable enclosures, such as a crib, having an integral inflatable side or end guard that is generally used to safely support an infant.

(1) Note. This collection excludes inflatable mattresses that are combined with noninflatable peripheral guards.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

93.1+, for a crib.

644, for an inflatable pillow.

655, for a support especially adapted for infant support.

706+, for an inflatable mattress.

#### 946 CRIB BUMPER:

A collection of documents disclosing the use of a soft, flexible, generally vertical protective device covering a substantial portion of the inner side and end walls of a crib, for the purpose of protecting the user of the crib from bumping against the generally rigid side or end walls (e.g., rails) of the crib.

(1) Note. The crib bumpers are generally removably positioned relative to the rails

of the crib with the aid of fasteners such as strings.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

93.1, for cribs.

424, for safety devices.

663, for rail or frame protecting devices.

#### SEE OR SEARCH CLASS:

248, Supports, subclass 345.1 for bumper or scuff plate used with supports of general utility.

#### 947 WALL MOUNTED BABY CHANGER:

A collection of documents disclosing the use of wall mounted supports adapted to temporarily support a baby during diaper changes with a baby supporting portion adapted to pivot from a stored vertical position to a horizontal use position.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

655, for supports especially adapted for infant support.

#### SEE OR SEARCH CLASS:

211, Supports: Racks, subclasses 189+ for knockdown type.

312, Supports: Cabinet Structure, subclass 348.1 for knockdown or setup type.

#### 948 BODY SUPPORT WITH UNIQUE, SPE-CIFIC FILLER MATERIAL:

A collection of documents disclosing the use of body supports comprising specific filler materials other than springs, conventional foams, air, water, gas, or flowable beads.

Note. This collection includes unconventional filler materials within supports for the body or body portions, used to provide support, with any other function being incidental to the body supporting function.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

413, for a sleeping bag.

636+, for a pillow.

652+, for a cushion.

690+, for a mattress.

#### 949 Comprising animal derived product:

A collection of documents under art collection 948 disclosing the use of animal derived products such as the hair of various animals (e.g., wool) or products made by worms such as silk.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

500, and 502, for multilayered bedclothes, such as blankets or quilts.

#### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 16 for treated fauna.

#### 950 Comprising feathers or down:

A collection of documents under art collection 949 disclosing the use of bird plumage.

(1) Note. The feathers or down, used by themselves or mixed with other materials, are chosen primarily for their good thermal insulating characteristics.

#### 951 Comprising plant derived material:

A collection of documents under art collection 948 in which the filler material includes natural flora products such as cotton, coconut fiber, straw, grass, etc.

(1) Note. Paper, which is cellulose based, is included in this collection.

### SEE OR SEARCH THIS CLASS, SUBCLASS:

487, for disposable bedclothing made from paper.

924, for devices under the class that include cardboard.

#### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 17+ for treated flora.

#### 952 Comprising artificial fiber:

A collection of documents under art collection 948 disclosing the use of various manmade fibers as a filler for a body support.

#### SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 74 for sheet encasing fibered material, subclasses 357+ for

coated or structurally defined fiber, and subclass 903 for microfiber.

### 953 Comprising structurally defined foam material or configuration:

A collection of documents under art collection 948 disclosing the use of an expanded cellular substance having unconventional physical or chemical properties.

- (1) Note. Since expanded cellular foams are conventional materials of construction for body supports, placing a document in this subclass requires some inherently unconventional chemical or physical property of the foam, or the foam must have been modified by the addition of other materials to exhibit an unconventional physical or chemical property.
- (2) Note. Unusual foam configurations can include the use of chunks, chips, layers, blocks, or unusual shapes and sizes of conventional foams, or an unusual aggregation, such as layering of conventional foams.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

655.9, for cushion-type supports comprising foam materials.

740, for mattresses with unusual foam material or configuration.

#### SEE OR SEARCH CLASS:

297, Chairs and Seats, digest 1 for chairs or seats comprised of foam materials.

#### 954 FIREPROOF:

This subclass is indented under the class definition. A collection of documents disclosing the use of materials especially useful in constructing supports that have fireproof or fire resistant properties.

(1) Note. This collection excludes fireproof mattresses that are adapted to support substantially the whole body of a user and bedclothing that is fireproof.

### SEE OR SEARCH THIS CLASS, SUB-CLASS:

483, for fireproof bedclothing.

698, for fireproof mattresses.

#### SEE OR SEARCH CLASS:

- 297, Chairs and Seats, digest 5 for chairs and seats with fireproof components.
- 428, Stock Material or Miscellaneous Articles, subclasses 443+ for composite laminate including asbestos and subclasses 920+ for fire or heat protection feature.

**END**