April 2, 1963 L. G. GRUBER 3,083,436

CASKET ADJUSTMENT MEANS

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FIG. 1

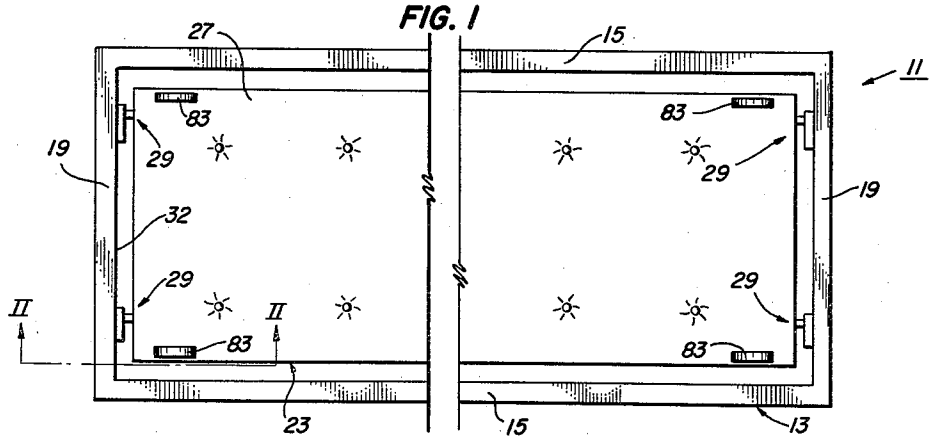


FIG. 2

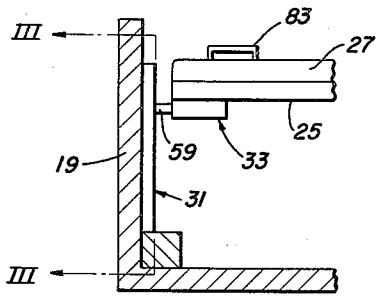


FIG. 3

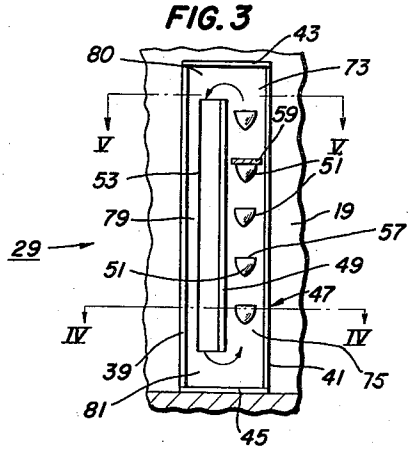


FIG. 4

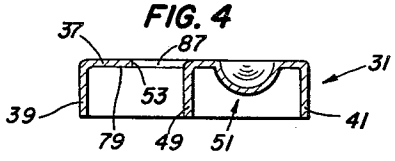


FIG. 5

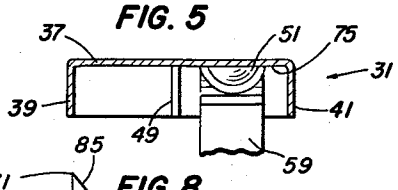


FIG. 7

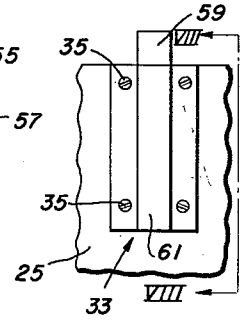


FIG. 6

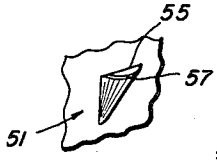
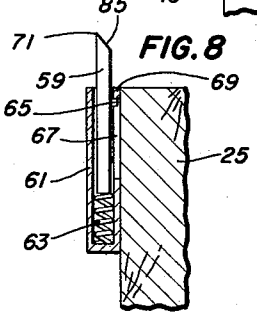


FIG. 8



INVENTOR.
LESLIE G. GRUBER
BY John R. Walker, III
Attorney

United States Patent Office

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CASKET ADJUSTMENT MEANS

Leslie G. Gruber, 4530 Shady Grove Road, Memphis, Tenn.

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This invention relates to means in a casket for adjusting the height of the bed or like structure that supports the corpse.

It is desirable to be able to adjust the height of the bed or other supporting structure in a casket, as for example, in the showroom where the caskets are displayed for prospective purchasers it is desirable to have the bed raised near the upper edge of the shell so that it can be seen better. Also, the bed should be adjusted to a height that will favorably display the corpse, and it is advantageous to have a bed that can be adjusted quickly and with a minimum of effort with the corpse thereon since sometimes it is necessary to make last-minute adjustments to satisfy the family of the deceased. Many of the present day caskets are constructed with the bed or supporting means resting on excelsior or similar material, and it is very difficult to adjust this type of casket since excelsior must be added to for raising the bed or removed for lowering the bed. Other types of caskets have adjustment means but these have been of expensive and complicated construction requiring special tools to effect the adjustment. Also, there are other types which are provided with adjustment means having mechanisms that must be tripped or unlatched to make the adjustment, thereby requiring one person to lift the bed while another person operates the mechanism. Also, many of the adjustment means are inaccessible, being located beneath the bed or at the side thereof so that it is difficult to operate the mechanism, with it sometimes being necessary to remove the corpse for making the adjustment.

The present invention is directed towards overcoming the disadvantages of previous adjustment means in a casket by providing casket adjustment means which can be operated by one person simply moving the bed by grasping the edges thereof or handles provided along the edges thereof and without the necessity of ever having to touch the adjustment means.

Thus, one of the objects of the present invention is to provide means in a casket for quickly and easily adjusting the bed or corpse supporting structure without the necessity of any special tools and without touching the mechanism.

A further object is to provide such means which is simple in construction and economical to manufacture.

A further object is to provide such means which is easily adapted to fit a wide variety of shell designs.

A further object is to provide such means whereby it is convenient to make the adjustment and which may be done with the corpse in place.

A further object is to provide interengaging means adjacent opposite ends of the casket including elements carried by the bed and the shell and arranged so that the bed is adjusted upwardly to a selected height by simply pulling upwardly on the bed and moved downwardly by first moving the bed laterally which permits it to lower, thence moving it laterally in the opposite direction from the first lateral movement to position the interengaging means for further upward adjustment of the bed, and all of this being accomplished without having to touch the mechanism.

A further object is generally to improve the design and construction of casket adjustment means.

The means by which the foregoing and other objects of the present invention are accomplished and the manner of their accomplishment will be readily understood from the following specification upon reference to the accompanying drawings, in which:

FIG. 1 is a top view of a casket employing the adjustment means of the present invention as viewed looking down into the shell of the casket and with the top thereof being removed for purposes of clarity.

FIG. 2 is an enlarged fragmentary sectional view taken as on the line II—II of FIG. 1.

FIG. 3 is a further enlarged fragmentary sectional view taken as on the line III—III of FIG. 2.

FIG. 4 is a further enlarged fragmentary sectional view taken as on the line IV—IV of FIG. 3.

FIG. 5 is a fragmentary sectional view taken as on the line V—V of FIG. 3.

FIG. 6 is a fragmentary perspective view of one of the stops of the adjustment means.

FIG. 7 is a fragmentary view of the bottom of the supporting structure showing a portion of the interengaging mechanism.

FIG. 8 is a fragmentary sectional view taken as on the line VIII—VIII of FIG. 7.

Referring now to the drawings in which the various parts are indicated by numerals, the casket employing the present invention is indicated in general as at 11 and includes the usual shell 13 having spaced parallel sides 15 interconnected adjacent the ends thereof by spaced ends 19. A bed or supporting structure 23 for the corpse, not shown, is provided in shell 13 and is formed of any suitable construction, as for example, the usual supporting frame 25 having a pad 27 or the like carried thereon. Supporting structure 23 in its normal supported position is spaced from shell 13 along the opposite ends thereof, and is spaced along the sides thereof so that the supporting structure is adapted to be moved laterally in shell 13 for a purpose later to be described, as well as being adapted to move vertically in the shell.

The means for supporting structure 23 in shell 13 is by a plurality of adjustment mechanisms 29 of the present invention. A pair of adjustment mechanisms 29 are preferably provided at each end of supporting structure 23 with each pair being laterally spaced apart as best seen in FIG. 1. Adjustment mechanisms 29 are substantially identical and the following description of one will suffice for all:

Adjustment mechanism 29 in general comprises a pair of interengaging elements or parts, i.e. a stationary element 31 fixedly attached to shell 13 to the inner side 32 of end 19 by suitable means as welding or the like, and a movable element or latch 33 fixedly attached to supporting structure 23 adjacent the end of frame 25 by suitable means as screws 35 or the like.

Stationary element 31 comprises a vertical plate 37 having laterally spaced vertical sides 39, 41 attached along the opposite side edges of vertical plate 37 and extending outwardly therefrom at a right angle, as best seen in FIGS. 4 and 5, and a pair of horizontally extending end members 43, 45 respectively interconnecting the opposite ends of vertical sides 39, 41 to form a substantially rectangular enclosure 47 disposed around the edges of vertical plate 37. In addition, stationary element 31 includes a vertical intermediate member 49 projecting outwardly

from vertical plate 37, with the intermediate member being in spaced parallel relationship between the sides 39, 41 and respectively being spaced from end members 43, 45. A plurality of vertically spaced stops 51 project outwardly from vertical plate 37 between intermediate member 49 and side 41. Stationary element 31 is preferably of integral construction and preferably stamped out. In other words, intermediate member 49 is preferably formed by making a vertical cut 53 in the vertical plate 37 and bending the metal outwardly at right angles to the main body of vertical plate 37, as best seen in FIGS. 3 and 4. Also, each of stops 51 is preferably formed by making a transverse cut 55 in the vertical plate 37 and pressing the metal outwardly from the main body of the vertical plate to form the horizontal upper circular edge 57 of the stop which is sloped inwardly and downwardly to the main body of the vertical plate, as best seen in FIG. 6. In addition, the vertical sides 39, 41 and end members 43, 45 are preferably formed integral with the vertical plate 37 by bending the edges thereof outwardly.

Latch 33 is of the usual spring-loaded latch construction including a plunger 59 slidably mounted in the body 61 of the latch for inward and outward movement. A compression spring 63 extends between the inner end of plunger 59 and body 61 to urge the plunger outwardly, which outward movement is limited by a stop 65 carried by the plunger. Stop 65 operates in a slot 67 in body 61 and contacts the portion 69 of the body to limit outward motion thereof. In the assembled relationship of supporting structure 23 in casket 11 compression spring 63 urges the outer end 71 of plunger 59 against vertical plate 37.

From the foregoing it will be understood that a unitary continuous closed track 73 is established for plunger 59 to move in. Track 73, it will be understood, is formed by enclosure 47 and intermediate member 49, with the path of movement of plunger 59 adapted to be in the direction indicated by the arrows in FIG. 3. Thus, as seen in this figure, one vertical portion 75 of the track is established to the right of intermediate member 49 between the intermediate member and side 41; another vertical portion 79 of the track is established to the left of the intermediate member between the intermediate member and side 39; an upper lateral portion 80 which connects the upper ends of the vertical track portions is established above intermediate member 49 between the intermediate member and end member 43; and a lower lateral track portion 81 which connects the lower ends of the vertical track portions is established below intermediate member 49 and between the intermediate member and end member 45.

In describing the operation of adjustment mechanism 29 it is assumed that plunger 59 is resting on one of stops 51, as seen in FIG. 3. To adjust one end of supporting structure 23 upwardly, that end is grasped along the opposite side edges of the supporting structure, or if desired, handles 83 are provided adjacent opposite side edges of the supporting structure. The end is simply lifted which will carry plunger 59 upwardly in vertical portion 75 of the track and with the end 71 of the plunger slidingly engaging the vertical plate 37. Outer end 71 of the plunger is preferably sloped downwardly and outwardly as at 85 so that when the plunger engages stops 51 the slope on the stops cooperating with the slope on the plunger will cause the plunger to be pushed inwardly until it goes beyond upper edge 57 at which time the plunger is released to move outwardly above the edge in a position to be supported on the stop. It will be understood that the plungers 59 of both the adjustment mechanisms 29 of the pair located at the particular end of the supporting structure that is being lifted, simultaneously go through the same motions relative to the stationary elements 31. This lifting motion is continued until plungers 59 of the pair of mechanisms respectively engage the proper stops 51 to give the desired height of the end of supporting structure 23. If it is desired to lower the supporting structure 23, upward movement thereof is continued until the plungers have moved through vertical portions 75 into upper lateral portions 80 whereupon the supporting structure is moved laterally until the plungers 59 are above vertical portions 79, whereupon the supporting structure 23 is lowered through the unobstructed vertical portions 79 until in the lower lateral portions 81. Thence, supporting structure 23 is moved laterally to carry the plungers 59 through lower lateral portions 81 until the plungers are respectively in alignment with vertical portions 75 whereupon the supporting structure is moved upwardly again until the proper stops 51 are respectively engaged by the plungers 59. It will be observed that during this adjusting operation described, it has not been necessary for the person doing the adjusting to contact or touch the adjustment mechanisms 29, but all he had to do was manipulate the end of the supporting structure 23. Also, it will be observed that there is no way for the plungers 59 to accidentally leave tracks 73, but they will remain in these closed track circuits. Also, it will be noted that for best operation the width of the cut-out 87 in vertical plate 37 from which intermediate member 49 was formed, should be less than the width of plunger 59 so that the plunger does not ride in the cut-out but rather against the outer surface of the vertical plate 37 when the plunger moves down through vertical portion 79. It should also be noted that the opposite ends of supporting structure 23 may be adjusted at the same time by having persons at both ends of the supporting structure lifting together, or if desired, a single person may first adjust one end and then the other.

From the foregoing description it will be seen that means is provided in a casket for quickly and easily adjusting the bed thereof without the necessity of any special tools and without touching the mechanisms. Also, such means is provided whereby the adjustment can be accomplished with the corpse either being in place or removed, and the adjustment can be made conveniently. In addition, it will be understood that such means is provided which is simple in construction and very economical to manufacture.

Although the invention has been described and illustrated with respect to a preferred embodiment thereof, it is to be understood that it is not to be so limited since changes and modifications may be made therein which are within the full intended scope of this invention as hereinafter claimed.

I claim:

1. In a casket haviffng a casketshell, a vertically movable supporting structure for supporting a corpse in said shell, said supporting structure being laterally spaced from said shell to provide room for moving said supporting structure laterally as well as vertically, adjustment means cooperating between opposite ends of said supporting structure and said shell for holding said supporting structure at a selected height; each of said adjustment means comprising a first element and a second element, one of said elements being attached to said supporting structure and the other of said elements being attached to said shell, said first element comprising means establishing a unitary continuous closed track including a first vertical track portion, a second vertical track portion laterally spaced from said first vertical track portion, an upper lateral track portion connecting said vertical track portions adjacent the upper ends thereof, and a lower lateral track portion connecting said vertical track portions adjacent the lower ends thereof; said first element additionally including a plurality of vertically spaced stops mounted along said first vertical track portion, said second element comprising a plunger engaging said first element in said closed track and resilient means yieldingly urging said plunger against said first element, said supporting structure being movable to cause said plunger to be moved relative to said first element in a path of move-

ment along said continuous closed track, said stops and said plunger being arranged to co-act with one another to permit upward movement of said supporting structure when the relative path of movement of said plunger is upward through said first vertical track portion and being arranged so that downward movement of said supporting structure is limited by said stops to hold said supporting structure at a selected position; said plunger, said second vertical track portion, and said lateral track portions being unobstructed and being arranged so that said plunger is free to move therein so that from a position in which said supporting structure is supported in a selected position said supporting structure is arranged to be moved to carry said plunger upwardly, thence laterally, thence freely downwardly, and thence laterally to a position below said stops for further movement upwardly to a selected position.

2. In a casket having a casket shell, a vertically movable supporting structure for supporting a corpse in said shell, adjustment means cooperating between opposite ends of said supporting structure and said shell for holding said supporting structure at a selected height; each of said adjustment means comprising a first element and a second element, one of said elements being attached to said supporting structure and the other of said elements being attached to said shell, said first element comprising means establishing a unitary continuous closed track including a first track portion having upper and lower ends, and including a remaining track portion connecting said upper and lower ends; said first element additionally including a plurality of vertically spaced stops mounted along said first track portion, said second element comprising a plunger engaging said first element in said closed track and resilient means yieldingly urging said plunger against said first element, said supporting structure being movable to cause said plunger to be moved relative to said first element in a path of movement along said continuous closed track, said stops and said plunger being arranged to co-act with one another to permit upward movement of said supporting structure when the relative path of movement of said plunger is upward through said first track portion and being arranged so that downward movement of said supporting structure is limited by said stops to hold said supporting structure at a selected position; said plunger and said remaining track portion being arranged so that said plunger is free to move therein so that from a position in which said supporting structure is supported in a selected position said supporting structure is arranged to be moved to carry said plunger upwardly through said first portion, and thence through said remaining portion to a position below said stops for further movement upwardly to a selected position.

3. In a casket having a casket shell, a vertically movable supporting structure for supporting a corpse in said shell, said supporting structure being laterally spaced from said shell and being laterally movable as well as vertically movable, adjustment means cooperating between opposite ends of said supporting structure and said shell for holding said supporting structure at a selected height; each of said adjustment means comprising a first element and a second element, one of said elements being fixedly attached to said supporting structure against any lateral and vertical movements of any part thereof relative to said supporting structure and the other of said elements being fixedly attached to said shell, said first element comprising means establishing a unitary continuous closed track including a first vertical track portion, a second vertical track portion adjacent said first vertical track portion, an upper lateral track portion connecting said vertical track portions adjacent the upper ends thereof, and a lower lateral track portion connecting said vertical track portions adjacent the lower ends thereof, means in said first vertical track portion cooperating with said second element for limiting downward movement of said second element relative to said first element to hold said supporting structure at one of a plurality of selected heights and for permitting upward movement of said second element relative to said first element so that said supporting structure is adapted to be moved in such a manner to carry said second element upward relative to said first element through said first vertical track portion, across said upper lateral track portion, down said second vertical track portion, and across said lower lateral track portion back to said first vertical track portion for further movement upwardly to a selected position.

4. In a casket having a casket shell, a supporting structure for supporting a corpse in said shell, adjustment means cooperating between opposite ends of said supporting structure and said shell for holding said supporting structure at a selected height, said supporting structure being movable vertically and in opposite directions in substantially horizontal planes; each of said adjustment means comprising interengaging means including a first element and a second element, one of said elements being fixedly attached to said supporting structure against any movements vertically and in said opposite directions in substantially horizontal planes of any part thereof relative to said supporting structure and the other of said elements being fixedly attached to said shell against any movements vertically and in said opposite directions in substantially horizontal planes of any part thereof relative to said supporting structure, said first element comprising means establishing a continuous track for said second element to ride in, said elements being movable relative to one another whereby said supporting structure is adapted to be moved relative to said shell to carry said second element around said track, said track including a first portion and a remaining unobstructed portion, said first portion having an upper end and a lower end, said unobstructed portion leading from said upper end back to said lower end, means in said first portion cooperating with said second element for limiting downward movement of said second element relative to said first element to hold said supporting structure at one of a plurality of selected heights and for permitting upward movement of said second element relative to said first element so that said supporting structure is adapted to be moved vertically and in said opposite directions in substantially horizontal planes in such a manner to cause said second element to move upward relative to said first element through said first portion and back around to the lower end thereof for further movement upwardly to a selected position.

5. In a casket having a casket shell, a supporting structure for supporting a corpse in said shell, adjustment means cooperating between opposite ends of said supporting structure and said shell for holding said supporting structure at a selected height, said supporting structure being movable vertically and in opposite directions in substantially horizontal planes, each of said adjustment means comprising interengaging means including a first element and a second element, one of said elements being fixedly attached to said supporting structure against any movements vertically and in said opposite directions in substantially horizontal planes of any part thereof relative to said supporting structure and the other of said elements being fixedly attached to said shell against any movements vertically and in said opposite directions in substantially horizontal planes of any part thereof relative to said supporting structure, one of said elements comprising means establishing a continuous and endless track for the other of said elements to ride in, said elements being movable relative to one another whereby said supporting structure is adapted to be moved relative to said shell to carry one of said elements around said track in the normal operation thereof in one direction, said interengaging means being operable completely by movement of said supporting structure vertically and in said opposite directions in substantially horizontal planes, said

interengaging means including means in said track for holding said structure at a selected height and including an unobstructed portion in said track so that said supporting structure is adapted to be lowered.

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