Jan. 19, 1971 W. E. ATKINSON 3,555,860

SLIDE ROD TYPE COMBINATION LOCK AND LATCH STRUCTURE

Filed Sept. 3, 1968 2 Sheets-Sheet 1

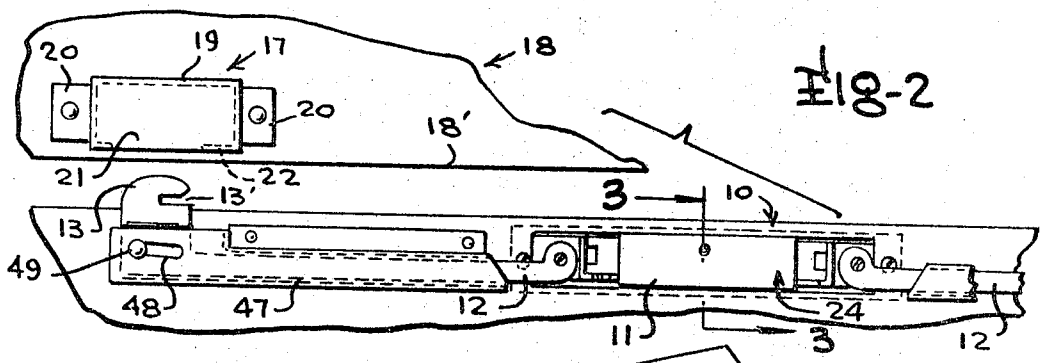


Fig-2

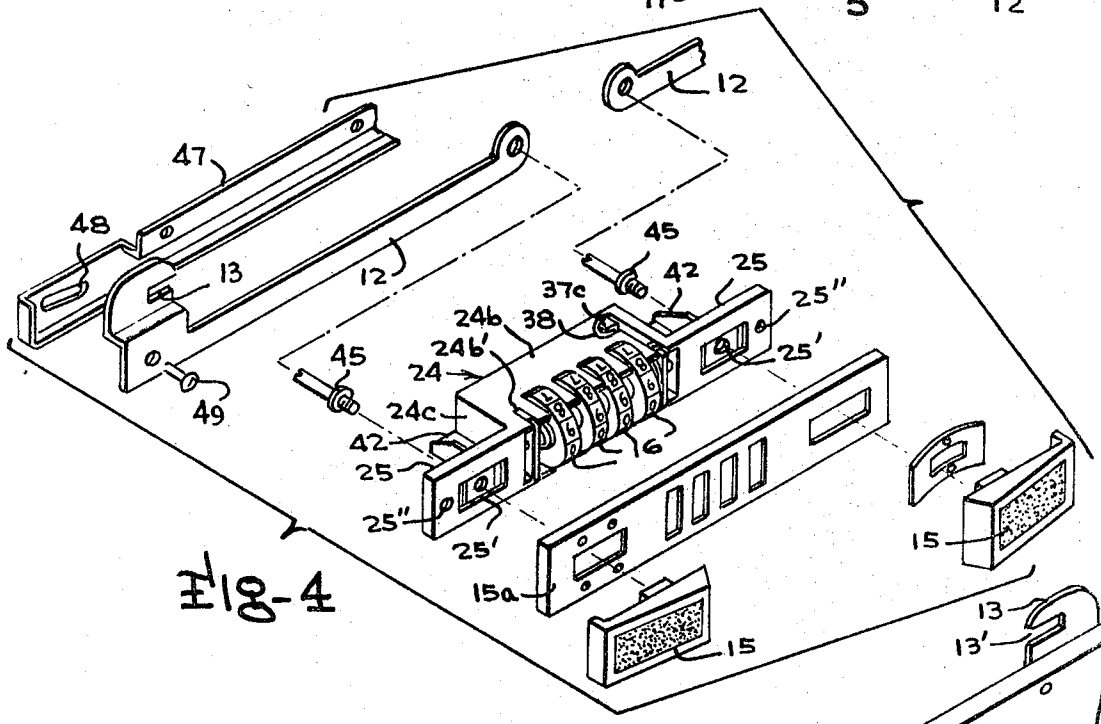


Fig-4

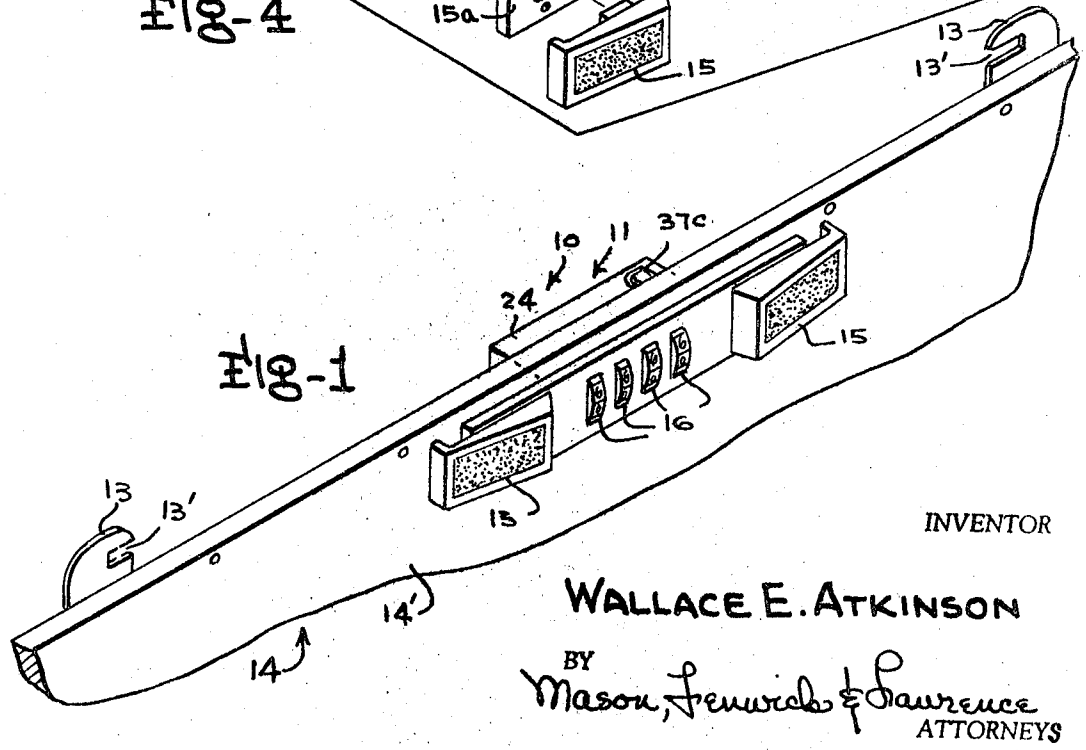


Fig-1

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FIG-3

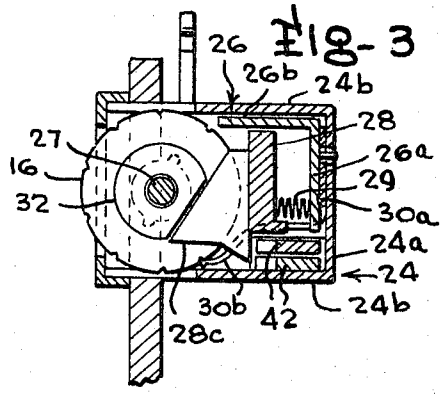


FIG-6

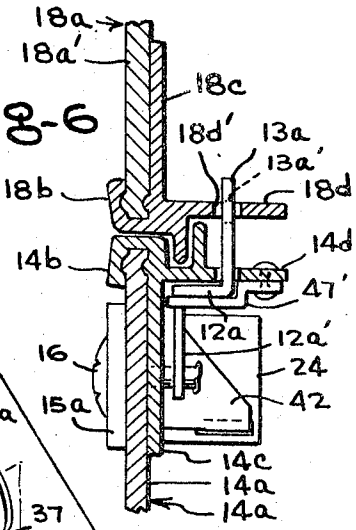
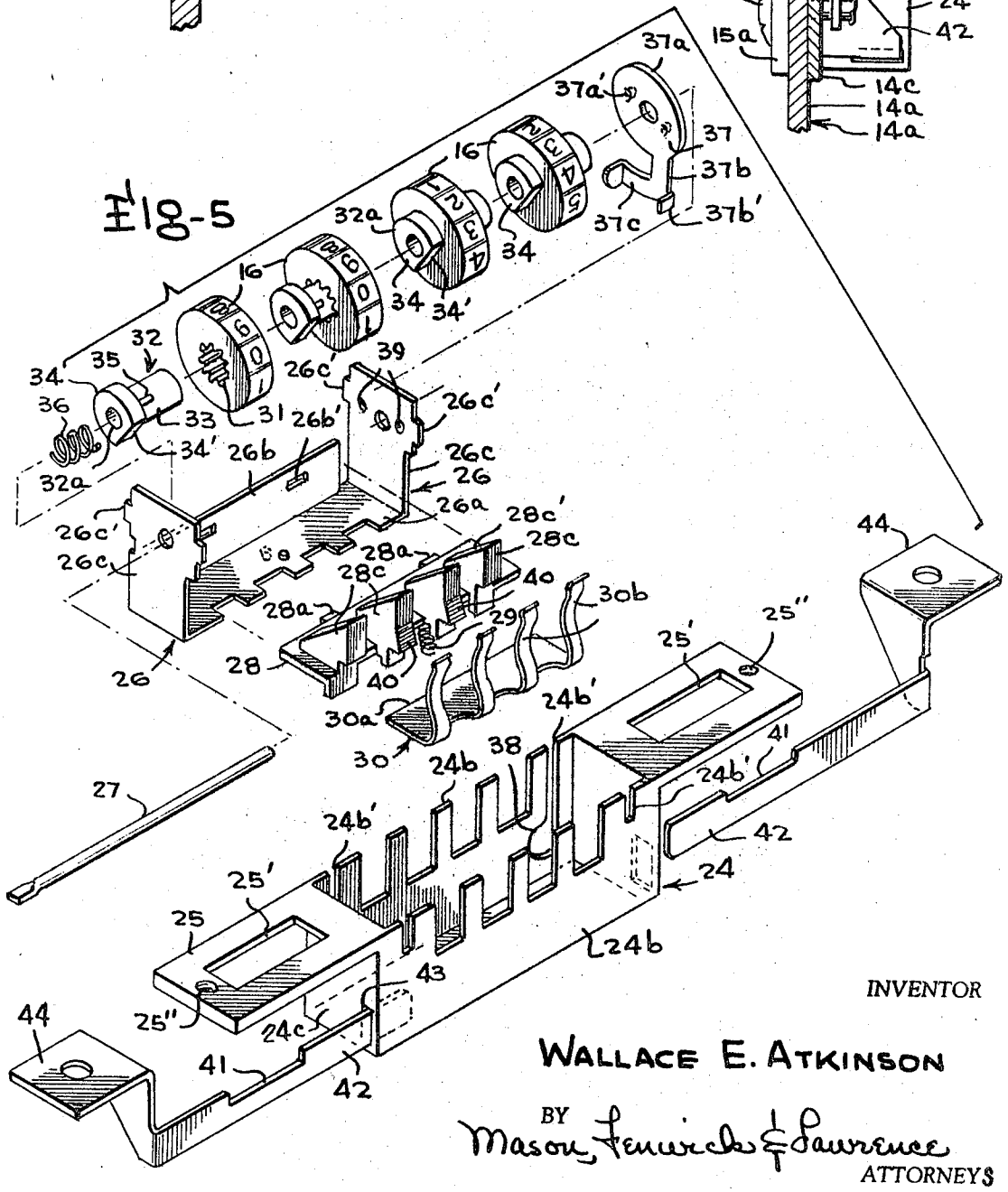


FIG-5



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United States Patent Office 3,555,860 Patented Jan. 19, 1971

3,555,860

SLIDE ROD TYPE COMBINATION LOCK AND LATCH STRUCTURE

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Filed Sept. 3, 1968, Ser. No. 757,073
Int. Cl. E05b 37/02, 5/52
U.S. Cl. 70—312 15 Claims

ABSTRACT OF THE DISCLOSURE

A combination lock and latching mechanism, formed of a center lock unit having plural, coaxial dial wheels and a stack of hubs therefor which are axially movable to decouple them from the dial wheels for changing the combination, a tiltable fence bar, a pair of overlapping slide plates which are locked and released by the fence bar and slide rods coupled to the slide plates and to push-buttons and having latch hooks on their outer ends for latching engagement with keepers.

BACKGROUND AND OBJECTS OF THE INVENTION

The present invention relates in general to combination type latching devices adapted for application to containers or receptacles, such as luggage, having separable sections to be releasably secured in closed position, and more particularly to a slide rod latching and locking mechanism for luggage cases having a plurality of rotatable combination dial members incorporated therein adapted to be individually set to a predetermined combination of dial numbers.

Combination locks have been used for many years in a wide variety of locking applications, but such combination locks have in the main been of relatively complex and expensive construction involving a plurality of peripherally gated tumbler wheels operated from a single dial. Such conventional combination lock structures, because of their size, expense of manufacture, and complex construction, have been generally considered unsuitable for ordinary portable luggage cases. Furthermore, while the usual latching devices or lock mechanisms for luggage have been of the type wherein the latch section coacts with a companion keeper section at a single point located immediately adjacent the latch section, it is desirable in many luggage applications to have a central locking mechanism disposed at a particular location, for example substantially midway along the front side of the luggage adjacent the handle, which controls the plurality of latches spaced from the locking mechanism location, for example at positions adjacent the opposite ends of the front side of the luggage, to positively latch the two luggage sections together at such spaced locations. This is particularly desirable when a combination type locking mechanism is to be employed to control the latching devices, to reduce the expense involved in such a combination type locking installation, so that only a single combination locking mechanism need be used to control the plurality of latching devices.

An object of the present invention, therefore, is the provision of a novel combination lock and latching mechanism for luggage cases, wherein a single combination lock mechanism of compact construction involving a plurality of combination dial members controls plural latching devices at spaced locations along the luggage case.

Another object of the present invention is the provision of a novel combination lock and latching mechanism for luggage cases and the like, wherein a single combination lock structure having a plurality of combination dial members controls locking and releasing of plural slide rods having latching formations controlled thereby to effect locking and unlocking of latching mechanisms at spaced locations from a single combination locking structure.

Another object of the present invention is the provision of a combination locking and latching mechanism for luggage cases of the type described in either of the preceding paragraphs, wherein a novel tiltable fence structure is associated with plural combination dial members to control locking and unlocking of reciprocative slide rods movable along a substantially common axis of reciprocation.

Other objects, advantages and capabilities of the present invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings illustrating a preferred embodiment of the invention.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 is a fragmentary front perspective view of a combination locking and latching mechanism condition on the present invention, shown in unlatched condition on the lower section of a luggage case;

FIG. 2 is a rear elevation view of the combination locking and latching mechanism installed on the inner surface of the front wall portions of a luggage case, as seen from inside the case;

FIG. 3 is a vertical transverse section view taken along the line 3—3 of FIG. 2;

FIG. 4 is an exploded perspective view of the central combination lock unit and the slide rod latching sub-assemblies associated therewith;

FIG. 5 is an exploded perspective view of the internal mechanism of the central combination locking unit; and

FIG. 6 is a vertical section view of a valance type luggage case with the latching mechanism of the present invention installed thereon.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Referring to the drawings, wherein like reference characters designate corresponding parts throughout the several figures, the combination lock and latching mechanism of the present invention is indicated generally by the reference character **10**, and comprises a main or center combination type lock sub-assembly or unit **11** and latching members in the form of slide rods **12** coupled to the lock sub-assembly **11** and having latch hook formations **13** on the ends thereof remote from the lock sub-assembly **11**, all mounted against the inner surface of the front wall **14'** of one of the luggage case sections **14**, for example the lower case section. Exposed for manipulation forwardly of the front wall **14'** through a front cover plate **15***a* are a pair of pushbutton members **15** connected to the slide rods **12** and flanking the forwardly exposed portions of the plurality of coaxial cylindrical dial members or disks **16** which are manuallly manipulated to dial the selected lock combination. The latch hook formations **13** project beyond the plane of separation between the two luggage case sections into keeper members **17** mounted on the front wall **18'** of the companion case section **18**, for example the upper case section. Keeper members **17** in the embodiment herein illustrated are simply formed of a box-like structure **19** flanked by mounting flanges **20** for securing the same to the front wall **18'** and having an opening **21** facing towards the associated latch hook formation **13** to permit entry of the latter, bounded at one side by a thin wall or shoulder portion **22** to interfit in the recess **13'** of the latch hook formation **13** and thus latch the two case sections **14** and **18** together in closed condition.

The center lock sub-assembly **11**, as more clearly illustrated in FIGS. 3, 4 and 5, comprises a box-like housing member **24** having a rear wall **24***a*, top and bottom walls

24*b* suitably recessed near their forward edges to receive peripheral portions of the dial members **16**, end walls **24***c*, and mounting flanges **25** projecting oppositely from the end walls **24***c* provided with elongated slots **25'** and facilities for fastening the same to the inner surface of the front wall **14'**, such as apertures **25''** to receive suitable fastening screws or rivets, or, alternatively the mounting flanges may have integral rivet studs thereon for fastening the same to the front wall **14**. Within the housing member **24** is a frame **26** for supporting the combination lock mechanism, which includes a rear wall **26***a*, a top wall **26***b*, and a pair of forwardly projecting arms **26***c*, located inwardly adjacent the end walls **24***c* of the housing member to rotatably and slidably support a shaft **27** on which the dial members **16** are mounted in a manner to be described hereinafter. The frame **26** is properly located and supported within the housing member **24** by means of lugs **26***c'* on the arms **26***c* thereof which fit into forwardly opening slots **24***b'* in the top and bottom walls **24***b* of the housing member.

The top wall **26***b* of the frame **26** has a pair of aligned slots **26***b'* therein to receive the lugs **28***a* of a fence **28** and tiltably support the fence for movement toward and away from the shaft **27**, the fence being continuously biased toward the shaft **27** by a coil spring **29** disposed between the fence and the rear wall **26***a* of the frame **26**. Disposed between the rear walls **26***a* and **24***a* is the base portion **30***a* of a spring detent member **30** having a plurality of spring fingers **30***b* projecting forwardly therefrom through aligned slots or recesses in the rear wall **26***a* of the frame **26** into resiliently holding engagement with the peripheries of the respective dial members **16** to resiliently restrain the dial members in the circumferential positions to which they are adjusted by the operator.

The dial members or disks **16**, four of which are provided in the illustrated embodiment, have dial marking lines and dial numerals on the peripheries thereof so as to be visible to the operator from the front of the unit, and each has an axial bore **31** extending therethrough provided with a plurality of concave notches in the inwardly facing surface thereof, ten such notches being present in the illustrated example. The dial members **16** are journaled on the shaft **27** in coaxial relation along the common axis of the shaft by means of hubs **32**, each of the same construction, associated with the respective dial members **16**. Each of the hubs **32** has a center bore **32***a* through which the shaft **27** extends to support the hubs for rotational and axial sliding movement on the shaft, and includes a relatively smaller diameter, substantially cylindrical body portion **33** of a diameter corresponding to the minimum diameter of the bore **31** in the associated dial member **16** for relative rotation therein, and a larger diameter collar formation **34** of larger diameter than the minimum diameter of the bore **31** adapted to butt against the confronting face of the adjacent dial member **16**. A plurality of eccentrically located, axially elongated interlocking pins or lugs **35**, shown in the illustrated example as a diametrically opposed pair of lugs, project axially from the collar formation **34** along a portion of the axial length of the body **33** to be received in the notches in the inwardly facing surface of the bore **31** and interlock the associated dial member **16** with the hub **32** against relative angular movement at any of the ten selected angular positions corresponding to the ten dial numbers on the periphery of the dial member **16**.

The stack of hubs **32** associated with the plurality of dial members **16** are in successive abutment with each other along the shaft **27** so as to be movable along the axis of the shaft **27** as a unit. The stack of hubs **32** is biased toward one end of the shaft **27**, for example the right hand end as viewed in FIG. 5, by a coil spring **36** surrounding the shaft and compressed between the adjacent arm **26***c* of the frame **26** and the nearest hub **32**. The end of the body **33** of the hub **32** at the opposite end of the stack bears against a combination change lever **37**

having a circular portion **37***a* which is centrally apertured and rotatably supported on the shaft **27** and an integral, radially extending operating arm **37***b* having an arcuate extension **37***c* projecting through an enlargement **38** at the base of one of the slots **24***b'* in the bottom wall **24***b* of the housing member **24**. The circular portion **37***a* of the combination change lever **37** has a pair of detent sockets **37***a'* therein facing towards the adjacent frame arm **26***c*, and is normally disposed at an angular position registering these detent sockets **37***a'* with detent noses or projections **39** in the frame arm **26***c*.

It will be apparent, therefore, that upon rotation of the combination change lever **37** by actuation of the extension **37***c* on the operating arm **37***b* thereof to withdraw the same for a selected distance from the slot extension **38**, the detent sockets **37***a'* will be positioned out of registry with the companion detent noses **39**, causing the circular portion **37***a* to be moved away from the adjoining frame arm **26***c*. Since this portion of the combination change lever **37** bears against the end of the endmost hub **32** in the stack of hubs, the entire stack of hubs will be displaced axially against the bias of the spring **36** in the opposite direction a sufficient distance to withdraw the interlocking pins or lugs **35** from the notches in the bore of the associated dial members **16** and free the dial members **16** for rotation relative to their associated hubs **32**. When the dial members **16** are manually adjusted to the desired angular positions representing the combination selected for the locking mechanism, the lever **37** is then returned to normal angular position registering the detent sockets **37***a'* with the detent noses **39** to interlock the hubs in appropriate angular relation with their associated dial members **16**.

The fence **28** has a plurality of truncated triangular fence noses **28C** projecting therefrom respectively associated with the dial members **16**, the fence noses **28***c* having inclined surfaces **28***c'* which bear against the peripheries of the collar formations **34** of the respective hubs **32**. It will be noted from the drawings that the collar formations **34** each have a flat or relieved portion **34'** at a selected angular position thereon, to coact with the inclined surfaces **28***c'* of the fence to permit a selected degree of angular movement of the fence **28** from a locking position to the unlocking position illustrated in FIG. 3. The operating lever **37***b* of the combination change lever **37** has an ear or shoulder formation **37***b'* thereon normally disposed relative to the fence **28** when the fence is in locking position to prevent adjustment of the combination change lever **37** to the change position. The fence **28** also has locking formations thereon, such as the projections **40** shown in FIG. 5, which extend toward the bottom wall **24***b* of the housing member **24**, to normally interfit into registering notches **41** of a pair of overlapping slide plate members **42** disposed between the lower edges of the frame arms **26***c* and the bottom wall **24***b* of the housing member **24**. These slide plate members **42** respectively project through slots **43** in the end walls **24***c* of the housing member **24** and have forwardly offset connecting flanges **44** bearing against the inwardly facing surfaces of the mounting flanges **25** of the housing member **24**. The connecting flanges **44** of the slide plate members **42** are connected to the forwardly exposed pushbutton members **15** by fastening members, such as the connecting studs **45** projecting rearwardly from the associated pushbutton members **15** through elongated slots in the front cover plate **15***a* and the slots **25'** in the housing mounting flanges **25**, these studs also connecting the slide plate members **42** to the inner ends of the latching slide rods **12**. For example, the connecting studs **45** may be headed or deformed outwardly at their rearmost ends.

The slide rods **12** are guided for reciprocative movement in the direction of the axis of the shaft **27** and for limited angular movement transverse to that axis in substantially channel-shaped guide members **47** attached to the inside of the front wall **14'** of the case. These guide members **47**

each have an inclined slot **48** near the outer end thereof adjacent the latch hook formations **13** which slidably receive a pin or similar projection **49** fixed to the adjacent latch hook formation **13** to shift the outer end of the respective slide rod **12** transverse to the axis of the shaft **27** toward the associated keeper member **17** when the inner end of the slide rod **12** is forced axially outwardly from the center lock subassembly by movement of the slide plate members **42**. Likewise, this pin **49** and slot **48** draw the outer end, and therefore the latch hook formations **13** of the associated slide rods, in the opposite direction when the inner ends of the associated slide rods **12** are retracted inwardly toward the center locking subassembly **11**, to latch the hook formations **13** with the associated keepers and draw the keepers and the section of the case to which the keepers are attached into tightly closed condition relative to the case section on which the latching mechanism is mounted.

It will be apparent from the foregoing description that when the latching and locking mechanism is in the locked condition, the case may be unlocked and released from latched condition by manually adjusting the dial members **16** to the angular positions appropriate for establishing the selected combination of the lock, thus disposing the flats **34'** on the hub collar formations **34** at the proper angular position to accommodate inward tilting movement of the fence **28** to the position shown in FIG. 3. The spring **29** thereupon tilts the fence **28** to the forward or unlocking position, withdrawing the locking formations **40** on the fence from the notches **41** in the slide plate members **42**. The pushbutton members **15** can then be manually shifted laterally away from each other along the direction of the axis of shaft **27**, thereby forcing the latch hook formations **13** on the outer ends of the slide rods **12** outwardly and upwardly, as viewed in FIG. 2, to release them from latching relation with their associated keeper members **17** and release the two case sections to be opened. The unnotched edge portions of the slide plates **42** bearing against the rearwardly facing surfaces of the locking formations **40**, as shown in FIG. 3, when occupying the unlatching position, maintain the fence noses bearing against the flats **34'** of the hubs to restrain the hubs and dials from accidentally turning.

When the case is in open condition, the combination of the lock can be readily changed by manually shifting the combination change lever **37** through manipulation of the arcuate extension on the operating arm **37*b*** thereof to axially shift the stack of hubs **32** and disengage them from interlocked relation with their associated dial members **16**, whereupon the dial members **16** can be manipulated to the appropriate angular positions for the new combination. Upon return of the combination change lever **37** to its normal position, the hubs **32** are again interlocked with the dial members **16** in accordance with the new combination. The mechanism is returned to locked condition by closing the two case sections, manually drawing the pushbutton members **15** toward each other to the normal latching condition, which retracts the slide rods **12** and the slide plate members **42** intercoupled therewith to the inward limit position registering the notches **41** with the locking formations **40** on the fence **28**. Then by manipulating the dial members **16** to angular positions other than the selected combination, the uninterrupted circumferential portions of the hub collars **34** bearing against the inclined surfaces **28*c'*** of the fence **28** tilt the fence rearwardly to the normal locking position from the unlocking position illustrated in FIG. 3, whereupon the locking formations **40** enter the notches **41** in the slide plate members **42** and thus interlock the slide plate members **42** and the pushbutton members **15** and slide rods **12** intercoupled therewith against unlatching movement.

The above-described combination lock and latching mechanism lends itself well to valance type luggage cases, as illustrated in FIG. 6, wherein the upper and lower case sections **18**, **14** are formed of molded concave shells **18*a***, **14*a***, each having integral base walls and sidewall flanges extending inwardly therefrom, the front sidewall flanges being indicated at **18*a'*** and **14*a'***. Extruded valance frames **18*b***, **14*b*** are crimped or secured in conventional fashion over the free edges of the sidewall flanges of the shells and, in the illustrated embodiment, define channel-shaped formations having an outer short channel side **18*b***, **14*b***, a longer inner channel side **18*c***, **14*c***, the latter being suitably apertured to receive the housing, and an inwardly projecting flange **18*d***, **14*d***. The center lock sub-assembly **11** is mounted on the front sidewall flange **14*a*** in a manner similar to that described hereinbefore, with the housing **24** extending rearwardly through a suitable opening in the shell and in the valance frame channel side **14*c***. The slide rods for this valance type installation, indicated at **12*a*** in FIG. 6, may be conveniently positioned alongside the inwardly projecting flange **14*d*** in guide members **47'** riveted to the flange **14*d*** and defining with the flange **14*d*** guide channels for the respective slide rods. The ends of the slide rods **12*a*** adjacent the housing **24** may have right angle extensions **12*a'*** for convenient connection to the fasteners **45** connected to the pushbuttons **15** and slide plate members **42**. Likewise, the hook formations **13*a*** at the outer ends of the slide rods may project perpendicularly to the plane of flange **14*d*** through a slot in the flange **14*d*** and into a latching slot **18*d'*** in flange **18*d*** to interfit a recess **13*a'*** in each hook formation **13*a*** with a portion of flange **18*d*** bounding the slot **18*d'*** in a manner similar to the interfitting of hook recess **13'** in the wall or shoulder portion **22** of keeper **17**. In this way, the valance frames support the latching elements of the lock assembly and eliminate the need for a separate keeper.

It will be apparent that various modifications may be made in the invention within the spirit and scope thereof, and it is desired, therefore, that only such limitations be placed on the invention as are imposed by the prior art and set forth in the appended claims.

What is claimed is:

1. A combination lock and latching mechanism for first and second separable container sections comprising a pair of keepers spaced along a reference axis on said first container section, a center lock unit on said second container section having, a set of plural rotatable combination dial wheel assemblies disposed in axially spaced coaxial relation along a common axis of rotation paralleling said reference axis, a tiltable fence member supported adjacent the dial wheel assemblies spanning the set for angular movement toward and away from said common axis between locking and unlocking positions about a fence pivot axis paralleling said common axis, said dial wheel assemblies including means normally restraining said fence member at said locking position and admitting movement thereof to said unlocking position only when said dial wheel assemblies occupy a selected combination of angular positions, a pair of overlapping slide plates adjacent a portion of said fence member spaced from said pivot axis guided for rectilinear reciprocative movement along a path parallel to said common axis having recesses therein to be disposed in registry with each other at a selected latching position of said slide plates, said fence member having a locking projection thereon extending into the registering recesses when said fence member is in locking position to lock said slide plates against movement from said selected latching position, a pair of slide rod latching members extending oppositely from said lock unit generally parallel to said common axis having their inner ends coupled respectively to said slide plates and having latch formations on their outer ends for latching engagement with said keepers and manually operable means for moving said slide plates and the slide rods intercoupled therewith in diverging and converging directions along said path when said fence member occupies said unlocking position to

selectively release and latch said latch formations relative to their associated keepers.

2. A combination lock and latch mechanism as defined in claim 1 including wall means on said second section adjacent each of said latch formations, and pin and inclined guide slot means intercoupling each of said outer end portions of said latching members for moving said latch formations generally transversely of said path toward and away from said first section respectively during diverging and converging movement of said slide plates.

3. A combination lock and latching mechanism as defined in claim 1, including a shaft for said dial wheel assemblies, each dial wheel assembly comprising an outer annular wheel member having a central bore and an indicia bearing periphery and an inner hub slidably and rotatably journaled on said shaft and extending entirely through the bore of the associated wheel member, and said hubs being disposed in endwise abutting stacked relation on said shaft and each having a circumferential portion coacting with said fence member to restrain the latter in locking position and gating means at a selected angular position for admitting unlocking movement of said fence member.

4. A combination lock and latching mechanism as defined in claim 2, including a shaft for said dial wheel assemblies, each dial wheel assembly comprising an outer annular wheel member having a central bore and an indicia bearing periphery and an inner hub slidably and rotatably journaled on said shaft and extending entirely through the bore of the associated wheel member, and said hubs being disposed in endwise abutting stacked relation on said shaft and each having a circumferential portion coacting with said fence member to restrain the latter in locking position and gating means at a selected angular position for admitting unlocking movement of said fence member.

5. A combination lock and latching mechanism as defined in claim 3, including means intercoupling said hubs with their respective dial wheel members in any of a plurality of relative angular positions at a first relative axial position of the latter and releasing the hubs for relative angular movement at a second relative axial position, resilient means continuously biasing the stack of hubs to said first relative axial position, and a combination change lever journaled for angular and axial movement on said shaft bearing against an end of the stack of hubs normally disposing said hubs at said first axial position and shiftable about said shaft axis to a selected angularly displaced position to position said hubs at said second position and decouple the hubs from the dial wheel members to permit adjustment of the wheel members to a different combination of angular positions.

6. A combination lock and latching mechanism as defined in claim 4, including means intercoupling said hubs with their respective dial wheel members in any of a plurality of relative angular positions at a first relative axial position of the latter and releasing the hubs for relative angular movement at a second relative axial position, resilient means continuously biasing the stack of hubs to said first relative axial position, and a combination change lever journaled for angular and axial movement on said shaft bearing against an end of the stack of hubs normally disposing said hubs at said first axial position and shiftable about said shaft axis to a selected angularly displaced position to position said hubs at said second position and decouple the hubs from the dial wheel members to permit adjustment of the wheel members to a different combination of angular positions.

7. A combination lock and latching mechanism as defined in claim 5, wherein said resilient means comprises a spring engaging one end of said stack of hubs urging the stack in a first axial direction, said change lever having an aperture disk portion journaled on said shaft and

bearing against the opposite end of said stack, a stationary wall adjacent said disk portion, and said stationary wall and disk portion having confronting projection and socket formations therein normally registering with each other to locate the disk portion relative to said stationary wall to dispose said stack at said first axial position and displaced from each other to space said disk portion away from the stationary wall at a location disposing the stack at said second axial position.

8. A combination lock and latching mechanism as defined in claim 6, wherein said resilient means comprises a spring engaging one end of said stack of hubs urging the stack in a first axial direction, said change lever having an apertured disk portion journaled on said shaft and bearing against the opposite end of said stack, a stationary wall adjacent said disk portion, and said stationary wall and disk portion having confronting projection and socket formations therein normally registering with each other to locate the disk portion relative to said stationary wall to dispose said stack at said first axial position and displaced from each other to space said disk portion away from the stationary wall at a location disposing the stack at said second axial position.

9. A combination lock and latching mechanism comprising a lock unit having a shaft, a set of plural rotatable combination dial wheel assemblies disposed in axially spaced coaxial relation along said shaft, said wheel assemblies each comprising an outer annular dial wheel and an inner hub extending therethrough selectively intercoupled at plural relative angular positions with respect to said dial wheel, a movable fence adjacent said dial assemblies having locking and unlocking positions, means on said hubs coactive with said fence for restraining the latter at said locking position and releasing the fence to unlocking position, said hubs being slidably and rotatably journaled on said shaft in endwise abutting stacked relation, means at one end of the stack of hubs biasing them to a first axial position interlocking them against angular displacement relative to their respective dial wheels, means for releasing the hubs from their dial wheels at a second axial position of the hubs, a change lever having a disk portion defining a first face abutting the other end of said stack and a second face opposite said first face, means journalling said change lever on said shaft for angular movement about the shaft axis over an arcuate range between first and second angular positions, a stationary wall portion defining a face confronting and adjacent said second face of said disk portion, means defining confronting projection and socket formations on said portions positioned about the shaft axis to be disposed in nested registry with each other at said first angular position of the lever locating the disk portion relatively closer to the surface portion to dispose said hubs at said first axial position, and the locations of said formations disposing them out of registry when said lever occupies said second angular position and engaging said projection formations against one of said confronting faces to space said second face of said disk portion further away from said surface portion at a location forcing said hubs to said second axial position.

10. A combination lock and latching mechanism comprising a lock unit having a shaft, a set of plural rotatable combination dial wheel assemblies disposed in axially spaced coaxial relation along said shaft, said wheel assemblies each comprising an outer annular dial wheel and an inner hub extending therethrough selectively intercoupled at plural relative angular positions with respect to said dial wheel, a movable fence adjacent said dial assemblies having locking and unlocking positions, said dial wheels being spaced axially from each other defining intervening spaces therebetween, said hubs having fence controlling portions in said intervening spaces defining a circumferential cylindrical surface interrupted by a gating formation, a tiltable fence member supported adjacent the dial wheels spanning the whole group of dial wheel as-

semblies for angular movement about a pivot axis paralleling the axis of said shaft, said fence member having plural nose formations extending into said intervening spaces into engagement with said fence controlling portions of said hubs to be positioned at a locking position by said cylindrical surfaces and at an unlocking position when abutting said gating formations, reciprocative latch members guided for rectilinear reciprocative movement between latching and unlatching positions along a path paralleling the axis of the shaft and having recesses therein to be disposed in registry with each other at the latching position, and a locking projection on said fence member for entering the registering recesses and restraining said latch members in latching position when said fence members occupies said locking position and for releasing said latch members when said fence member occupies said unlocking position.

11. A combination lock and latching mechanism as defined in claim **10**, including means intercoupling said hubs with their respective dial wheel members in any of a plurality of relative angular positions at a first relative axial position of the latter and releasing the hubs for relative angular movement at a second relative axial position, resilient means continuously biasing the stack of hubs to said first relative axial position, and a combination change lever journaled for angular and axial movement on said shaft bearing against an end of the stack of hubs and shiftable about said shaft axis to first and second angularly displaced positions, said change lever having an apertured disk portion journaled on said shaft and bearing against an end of said stack, a stationary wall portion adjacent said disk portion, means defining confronting projection and socket formations on said stationary wall and disk portion normally registering in nested relation with each other when said change lever occupies said first position to locate the disk portion relatively closer to said stationary wall portion to dispose said stack at said first axial position, and the locations of said formations spacing them from each other to space said disk portion further away from the stationary wall portion at a location disposing the stack at said second axial position when said change lever occupies said second position.

12. A lock and latching assembly for first and second separable container sections comprising a pair of valance frames for the respective container sections each having a first flange paralleling and located rearwardly adjacent a wall of the container sections and a second flange projecting perpendicularly rearwardly from said first flange, the first and second flanges on one of said valance frames having apertures therein, a center lock unit mounted on the first flange of said one valance frame including a housing extending rearwardly through the aperture of the first flange, a locking mechanism in said housing including control means movable between first and second positions, a pair of slide rod latching members extending oppositely along an axis from said lock unit guidably supported against and in parallelism with the second flange of said one valance frame for movement in diverging and converging directions along said axis having their inner ends coupled to said control means and having latch hook formations on their outer ends extending perpendicularly through apertures in said second flange of said one valance frame, the second flange of the other valance frame having keeper slots therein for receiving and interlocking with said latch hook formations when said container sections are in closed condition.

13. A lock and latching assembly as defined in claim **12**, wherein said control means comprises a pair of overlapping slide plates guided for rectilinear reciprocative movement along a path parallel to said axis, and said lock unit including fence means movable between locking and unlocking positions for locking said slide plates to restrain said slide rods at selected latching position and for releasing the same for unlatching movement of said slide rods, and a plurality of dial wheel means coactive with said fence means to normally restrain the latter at said locking position and to permit movement of the fence means to unlocking position when the dial wheel means occupy a selected combination of angular positions.

14. A lock and latching assembly for first and second separable container sections comprising a pair of valance frames for the respective container sections each having a first flange paralleling a wall of the container sections and a second flange projecting perpendicularly from said first flange, the second flanges of said valance frames having apertures therein, a center lock unit mounted on the first flange of one of said valance frames including a housing, a locking mechanism in said housing including control means movable between first and second positions, a pair of slide rod latching members extending oppositely along an axis from said lock unit guidably supported against and in parallelism with the second flange of said one valance frame for movement in diverging and converging directions along said axis having their inner ends coupled to said control means and having latch hook formations on their outer ends extending perpendicularly through apertures in said second flange of said one valance frame, the apertures in the second flange of the other valance frame being disposed to receive and interlock with said latch hook formations to form keeper slots therefor when said container sections are in closed condition.

15. A lock and latching assembly for first and second separable container sections comprising a pair of valance frames for the respective container sections each having a first flange paralleling a wall of the container sections and a second flange projecting perpendicularly from said first flange, a center lock unit on one of said container sections including a housing, a locking mechanism in said housing including control means movable between latching and unlatching positions, fence means and a plurality of dial wheels in said housing for normally restraining said control means at said latching position and for releasing the same to unlatching position when the dial wheels occupy a selected combination of angular positions, a pair of slide rod latching members extending oppositely along an axis from said lock unit generally paralleling an edge of the associated container section guidably supported for movement in diverging and converging directions along said axis and having their inner ends coupled to said control means and having latch hook formations on their outer ends extending toward the other case section, and said other case section including means defining keeper slots for receiving and interlocking with said latch hook formations when said container sections are in closed conditions.

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U.S. Cl. X.R.

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