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CONCEALED DRAWERS FOR FURNITURE AND THE LIKE

Filed June 29, 1964

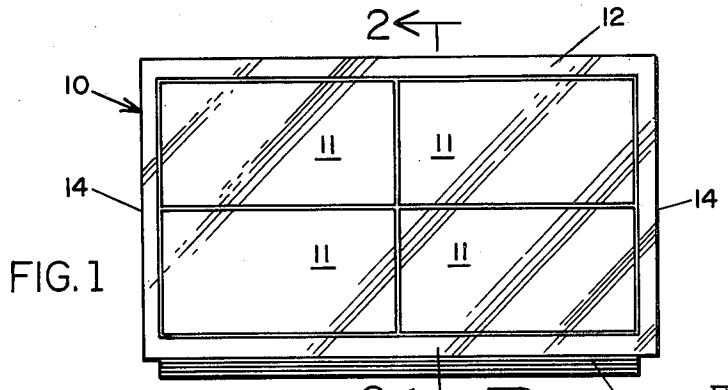


FIG. 1

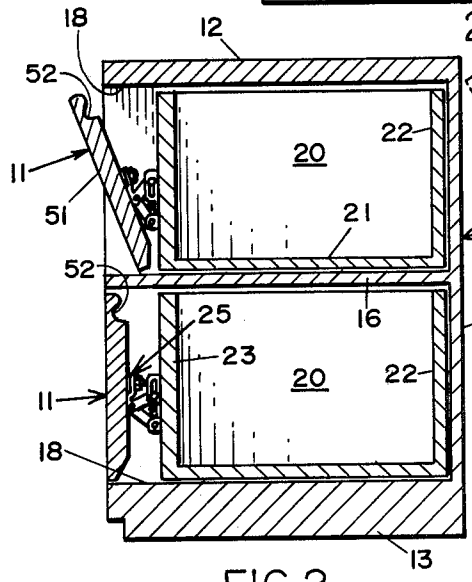


FIG. 2

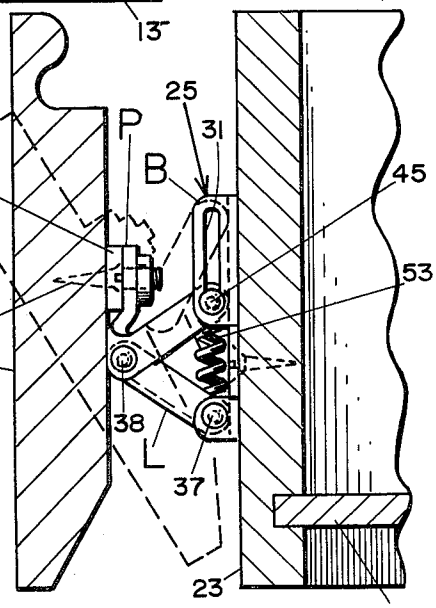


FIG. 3

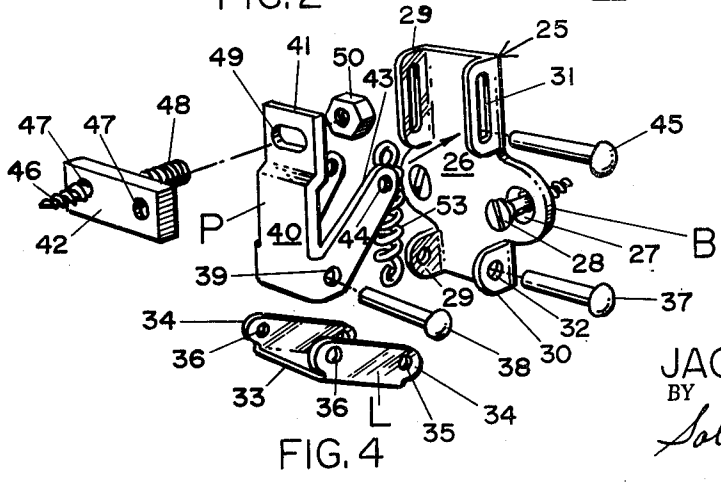


FIG. 4

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CONCEALED DRAWERS FOR FURNITURE AND THE LIKE

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This invention relates to furniture construction and is more particularly directed to having drawers which operate without the need for handles, grips and the like and are therefore, considered as being concealed.

A principal object of the present invention is to provide drawers in furniture, walls, etc. that require no hardware for opening same giving the appearance of there not being any drawers present therein.

Another object of the present invention is to provide a fixture for drawers which is concealed behind the exposed front wall of the drawer and permits the exposed front wall to pivot in position for a person to readily grasp the edge the wall for withdrawing the drawer.

A further object of the present invention is to provide a fixture for concealed drawers which is simple in construction and operation, inexpensive in cost and easily mounted in position with provision for adjustment yet most effective to permit opening of the drawers.

A still further object of the present invention is to provide concealed drawers with a fixture that permits the exposed front wall of the drawers to return to their normal position upon being released after the drawers have been opened or closed.

With these and other objects in view, the invention will be best understood from a consideration of the following detailed description taken in connection with the acompanying drawing forming a part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawing but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

FIGURE 1 is a front elevational view of a cabinet or bureau in which drawers embodying my invention are mounted.

FIGURE 2 is a cross sectional view taken along the line 2—2 of FIGURE 1.

FIGURE 3 is a fragmentary cross sectional view of the front portion of a drawer showing the fixture in detail.

FIGURE 4 is an exploded view of the fixture.

Referring to the drawing wherein like numerals are used to designate similar parts throughout the several views, the numeral **10** refers to an article of furniture which is shown by way of illustration only since concealed drawers **11** can be utilized in walls of buildings themsleves as in department stores, etc.

The cabinet **11** is conventional in construction consisting of the usual top wall **12**, bottom wall or base **13**, end walls **14**, rear wall **15**, with a horizontally disposed divider or shelf **16** and a vertically positioned divider wall **17** forming the opened spaces **18** for receiving the drawers **11**.

The concealed drawers **11** each comprises a pair of side walls **20**, a bottom wall **21**, a rear wall **22** and a front wall **23**, all of which are secured in the conventional manner along their edge portion to form an open top drawer **11**. However, since the side walls **20** and the bottom wall **21** are shorter than the depth of the spaces **18**, the front wall **23** of the drawers **11** will be positioned within the confines of the bureau **10** when the drawer **11** has been returned to the closed position in order to provide space for the fixture **25**.

The fixture **25** consists generally of a bracket B, a link L and a pivotal member P. The bracket B is provided with a flat body portion **26** having bores **27** for receiving screws **28** to fasten the bracket B to the outer surface of the front wall **23** of the drawers **11**. Two pairs of tabs or lugs **29**, **30** are mounted along the side edges of the body portion **26**, the upper lugs **29** are larger than the lower lugs **30** and are provided with elongated slots **31** while the lower lugs **30** are each provided with a bore **32**.

The link L consists of a flat body portion **33** with side walls **34** extending at right angle thereto along their full length. At the ends of the side walls **34** are bores **35** and **36**, the bores **35** being aligned with the bores **32** of the lower lugs **30** with a pivot pin **37** extending through the bores **35** and **32** to pivotally mount one end of the link L. The other end of the link L is pivotally mounted on the lower portion of the pivot member P by a pivot pin **38** which extends through the bores **36** of the link L and bores **39** in the pivot member P.

The pivot member P consists of a flat body portion **40** whose upper end portion **41** is offset an amount equal to the thickness of a bracket plate **42**. At the lower side portion of the body portion **40** of the pivot member P are arm portions **43** which extend at an oblique or inclined angle to a plane passing through the body portion **40**. At the free end of the arm portions **43** are bores **44** which are aligned with the elongated slots **31** of the bracket B and receive a slide pin **45**. The pin **45** is slidably positioned in the elongated slots **31** but yieldingly remains in the lower end of the slots **31** by virtue of a coil spring **53** which extends between the pins **45** and **37**.

The bracket plate **42** is secured by screws **46** to the inner surface of an outer front wall **51** extending through bores **47** in the bracket plate **42**. A bolt **48** having one end secured to the inner surface of the bracket plate **42** extends through a horizontally elongated opening **49** in the off-set portion **41** of the pivot member P. A nut **50** threaded on the bolt **48** secures the outer front wall **51** to the inner front wall **23** of the drawer **11** and in position within the opening of the drawer space **18**. The opening **49** is elongated to permit a fine adjustment laterally of the outer front wall **51** in the drawer space **18** to fit the wall **51** properly in the drawer space **18** and permit a proper alignment of the walls **51**.

To mount the fixture **25** in its proper position between the front walls **23** and **51** all that need be done is to remove the bracket plate **42** from the assembled fixture **25** and fasten the latter by the screws **46** to the inner surface of the outer front wall **51**. The remainder of the fixture **25** is fastened in position on the outer surface of the inner front wall **23**. The use of proper templates will determine with reasonable accuracy the placing of the fixture **25**.

Then the bolt **48** is inserted into the elongated bore **49** and the nut tightened only slightly. The drawer **11** is then closed and the outer front wall **51** adjusted if

necessary in the drawer space **18**. The nut **50** is tightened and the bracket **25** becomes properly mounted.

The upper inner portion of the outer wall **51** is provided with a grooved portion **52** to permit a person to grasp the outer wall **52** and pull outwardly without slipping therefrom when opening the drawer **11**.

To open the drawer **11**, a person will push inwardly on the lower outer portion of the outer front wall **51** to cause the slide pin **45** to slide upwardly in the slot **31** against the spring pressure **53**. At the same time the upper end of the link L swings inwardly as it pivots on the pivot pins **37** and **38**. The outer wall **51** shifts upward slightly as it swings in a counter clockwise direction as viewed in FIGURES 2 and 3. This movement of the outer front wall **51** prevents the lower edge thereof from impinging on the divider **16** or lower wall **18** as the upper edge of the outer front wall **51** swings away from the top wall **12**. The groove **52** is now exposed sufficiently to permit a person to grasp it and pull on the outer front wall **51** and withdraw the drawer **11** to its open position. To close the drawer **11** all one need do is push on the front outer wall **51** until the drawer **11** is in its closed position and the wall **51** flush with the front of the bureau **10**.

Having disclosed my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A fixture for concealed drawers comprising a bracket having a bore at a lower portion and an elongated slot at its upper portion, a pivot member having a flat body portion and an offset portion at its upper end, said offset portion having a bore, an arm portion extending at an oblique angle from a lower portion of said body portion, said arm portion having a bore at its lower and upper end portions, a link, pivot means mounting one end of said link to said bore at said lower portion of said bracket, further pivot means mounting the other end of said link to said lower bore in said arm portion, slidable pin means extending through said upper bore in said arm portion and said elongated slot in said bracket, resilient means yielding urging said slidable pin means to the lower portion of said elongated slot, a bracket plate positioned at said off set portion of said pivot member, a bolt extending from said bracket plate through said bore in said offset portion of said bracket and a nut threadedly mounted on said bolt for securing said bracket plate to said bracket.

2. A fixture for concealed drawers comprising a bracket, tab portions extending along each side of said bracket at substantially right angle, said tab portions having a pair of aligned bores at the lower portion thereof and a pair of aligned elongated slots at the upper portion, a link having side wall portions, said side wall portions having aligned bores at each end, a pivot pin extending through bores in one end of said link side wall portions and said lower bores in said bracket tabs, a pivot member having a lower portion and an offset upper portion, a pair of arms extending upwardly from said lower portion and at an oblique angle thereto, said pair of arms having aligned openings at each end thereof, a pivot pin extending through the other end of said link side wall portions and said lower bores in said pair of arms, a slide pin extending through said upper bores in said pair of arms and said elongated slots and a coil spring extending between said slide pin and said first named pivot pin whereby said slide pin is yieldingly maintained in the lower portion of said elongated slots.

3. A fixture for concealed drawers comprising a bracket, tab portions extending along each side of said bracket at substantially right angle, said tab portions having a pair of aligned bores at the lower portion thereof and a pair of aligned elongated slots at the upper portion, a link having side wall portions, said side wall portions having aligned bores at each end, a pivot pin extending through bores in one end of said link side wall portions and said lower bores in said bracket tabs, a pivot member having a lower portion and an offset upper portion, a pair of arms extending upwardly from said lower portion and at an oblique angle thereto, said pair of arms having aligned openings at each end thereof, a pivot pin extending through the other end of said link side wall portions and said lower bores in said pair of arms, a slide pin extending through said upper bores in said pair of arms and said elongated slots and a coil spring extending between said slide pin and said first named pivot pin whereby said slide pin is yieldingly maintained in the lower portion of said elongated slots, said offset portion of said pivot member having a bore, a bracket plate positioned at said offset portion of said pivot member, a bolt extending from said bracket plate through said bore in said offset portion of said bracket and a nut threadedly mounted on said bolt for securing said bracket plate to said bracket.

4. A concealed drawer having an inner front wall, an outer front wall positioned in spaced relation to said inner front wall, a bracket mounted on said inner front wall, said bracket having a bore at a lower portion and an elongated slot at its upper portion, a pivot member having a body portion secured to said outer front wall, an arm portion extending at an oblique angle from a lower portion of said body portion, said arm portion having a bore at its lower and upper end portions, a link, pivot means mounting one end of said link to said bore at said lower portion of said bracket, further pivot means mounting the other end of said link to said lower bore in said arm portion, slidable pin means extending through said upper bore in said arm portion and said elongated slot in said bracket, resilient means yieldingly urging said slidable pin means to the lower portion of said elongated slot whereby said outer front wall is yieldingly maintained in a spaced parallel relation with said inner front wall.

5. A concealed drawer having an inner front wall, an outer front wall positioned in spaced relation to said inner front wall, a bracket mounted on said inner front wall, said bracket having a bore at a lower portion and an elongated slot at its upper portion, a pivot member having a flat body portion and an offset portion at its upper end, said offset portion having a bore, an arm portion extending at an oblique angle from a lower portion of said body portion, said arm portion having a bore at its lower and upper end portions, a link, pivot means mounting one end of said link to said bore at said lower portion of said bracket, further pivot means mounting the other end of said link to said lower bore in said arm portion, slidable pin means extending through said upper bore in said arm portion and said elongated slot in said bracket, resilient means yieldingly urging said slidable pin means to the lower portion of said elongated slot, a bracket plate positioned at said offset portion of said pivot member, means securing said bracket plate to said outer front wall, a bolt extending from said bracket plate through said bore in said offset portion of said bracket and a nut threadedly mounted on said bolt for securing said bracket plate to said bracket whereby said outer front wall is yieldingly maintained in a spaced parallel relation with said inner front wall.

6. A concealed drawer having an inner front wall, an outer front wall positioned in spaced relation to said inner front wall, a bracket mounted on said inner front wall, said bracket having tab portions extending along each side at substantially right angle, said tab portions having a pair of aligned bores at the lower portion thereof and a pair of aligned elongated slots at the upper portion, a link having side wall portions, said side wall portions having aligned bores at each end, a pivot pin extending through bores in one end of said link side wall portions and said lower bores in said bracket tabs, a pivot member having a lower portion and an offset upper portion, a pair of arms extending upwardly from said lower portion and at an oblique angle thereto, said pair of arms having aligned

openings at each end thereof, a pivot pin extending through the other end of said link side wall portions and said lower bores in said pair of arms, a slide pin extending through said upper bores in said pair of arms and said elongated slots and a coil spring extending between said slide pin and said first named pivot pin whereby said slide pin is yieldingly maintained in the lower portion of said elongated slots, a bracket plate positioned at said offset portion of said pivot member, means securing said bracket plate to said outer front wall, a bolt extending from said bracket plate through said bore in said offset portion of said bracket and a nut threadedly mounted on said bolt for securing said bracket plate to said bracket whereby said outer front wall is yieldingly maintained in a spaced parallel relation with said inner front wall.

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