

S. T. WHITAKER.
ARTICLE OF FURNITURE.
APPLICATION FILED JUNE 28, 1911.

1,055,109.

Patented Mar. 4, 1913.

4 SHEETS-SHEET 1.

Fig. 1.

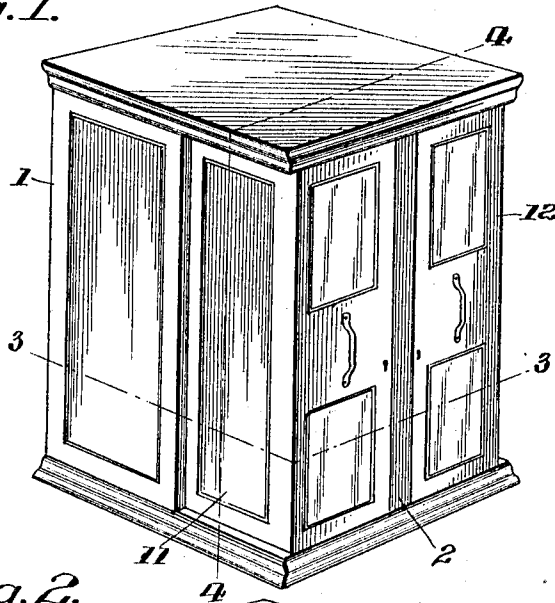
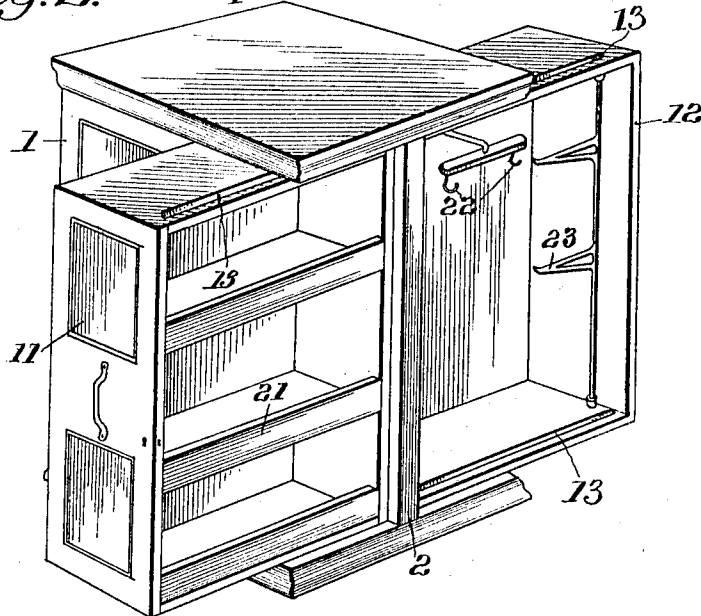


Fig. 2.



WITNESSES

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4 SHEETS—SHEET 2.

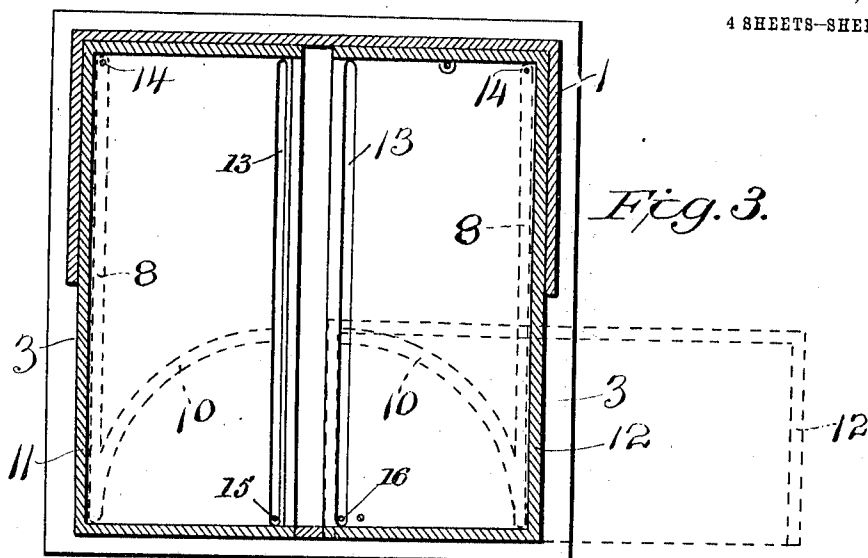


Fig. 3.

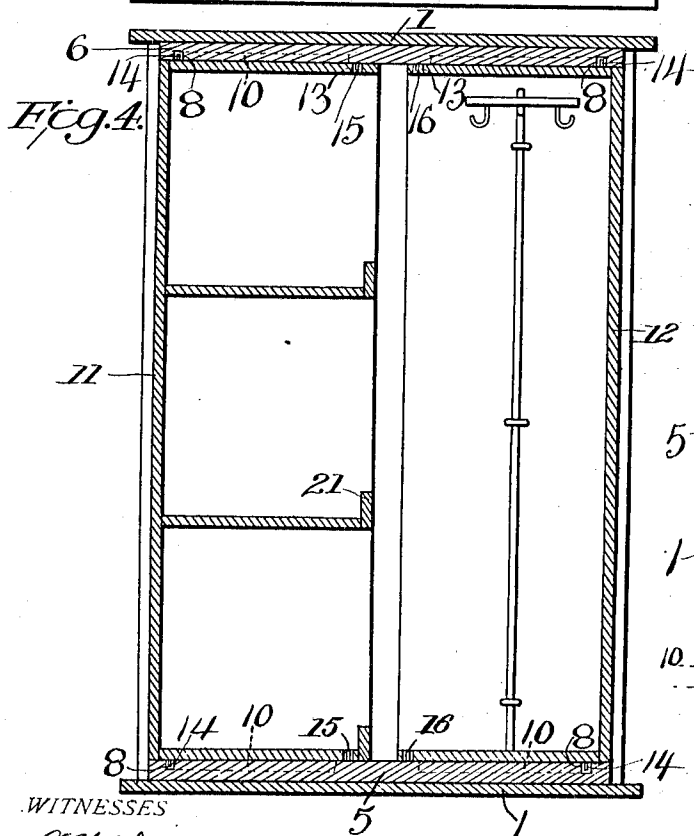


Fig. 4.

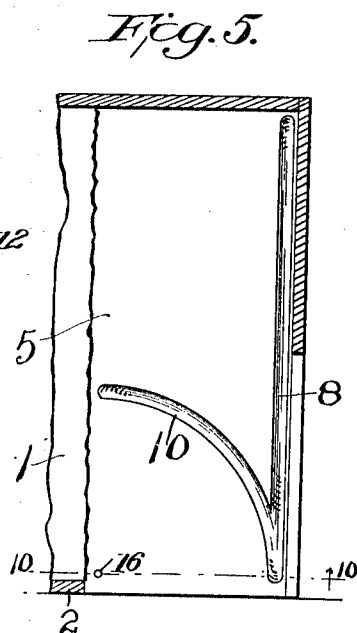


Fig. 5.

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4 SHEETS-SHEET 3.

Fig. 6.

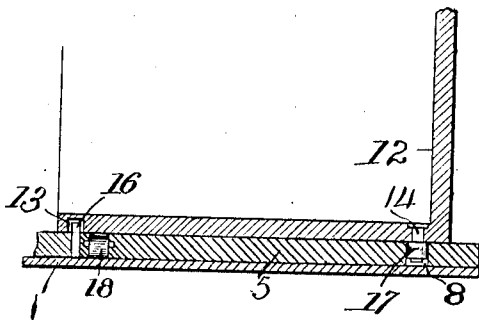
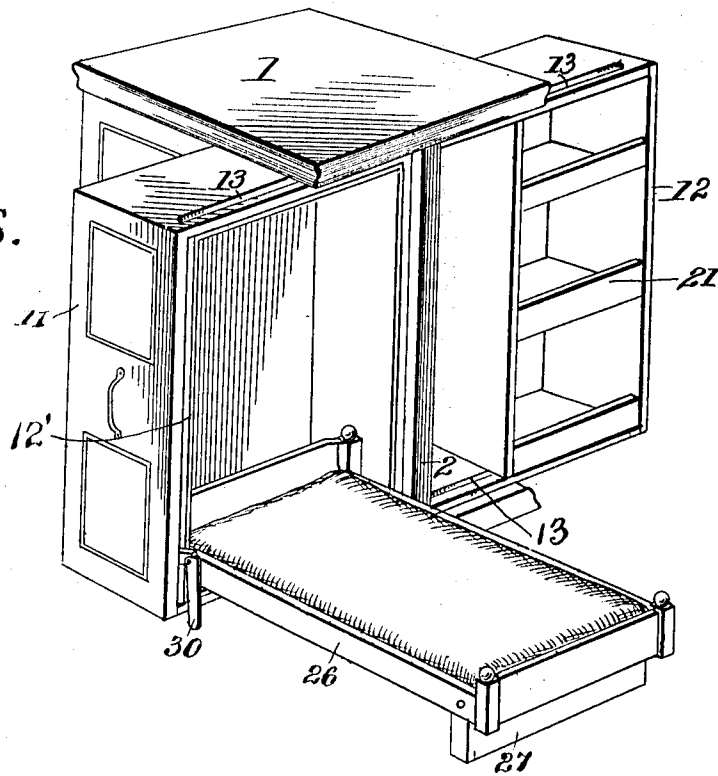


Fig. 10.

WITNESSES

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4 SHEETS—SHEET 4.

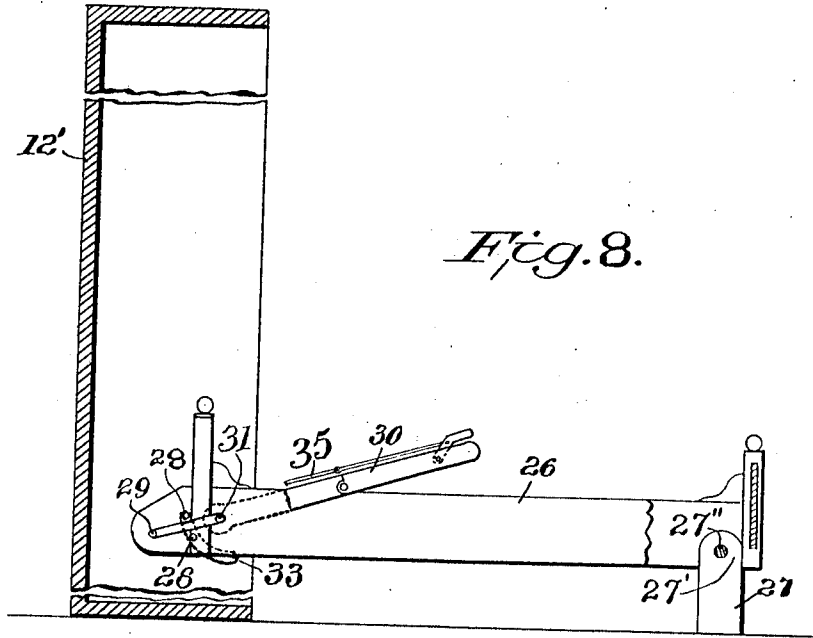


Fig. 8.

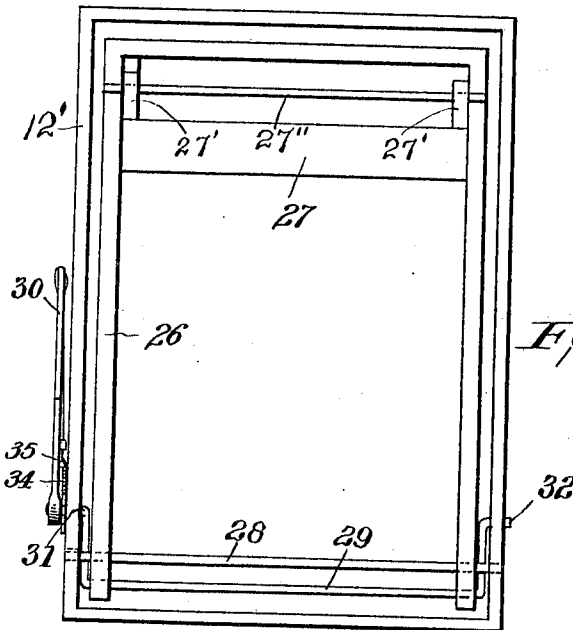


Fig. 7.

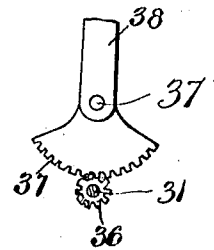


Fig. 9.

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UNITED STATES PATENT OFFICE.

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ARTICLE OF FURNITURE.

1,055,109.

Specification of Letters Patent.

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Application filed June 28, 1911. Serial No. 635,825.

To all whom it may concern:

Be it known that I, SAMUEL T. WHITAKER, a citizen of the United States, residing at Columbus, in the county of Muscogee and State of Georgia, have invented certain new and useful Improvements in Articles of Furniture; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in furniture and particularly to cabinets of the convertible type, and an essential object in view is the provision of means for assembling in the form of a neat, compact cabinet coöperating elements for enabling the shifting of certain of such elements from the closed cabinet condition to a condition for direct access.

With this and other detailed objects in view as will hereinafter in part become obvious, and in part be stated, the invention comprises certain novel constructions, combinations, and arrangements of parts as are herein set forth and claimed.

In the accompanying drawing,—Figure 1 is a perspective view of a cabinet illustrating one embodiment of the present invention, the parts being in their folded or closed position. Fig. 2 is a similar view of the same with the parts in their open position, a chest of shelves and a wardrobe being illustrated as the two receptacles comprising the movable elements of the cabinet. Fig. 3 is a horizontal cross-section taken on the plane indicated by line 3, 3, of Fig. 1 looking downwardly, one of the receptacles being indicated in dotted lines in its open position, and the bottom run-ways being indicated in dotted lines. Fig. 4 is a vertical longitudinal section taken on the plane indicated by line 4, 4, of Fig. 1. Fig. 5 is a fragmentary horizontal section taken on a plane between the lower end of the movable receptacles and the upper surface of the runway plate at the bottom of the cabinet, the run-way plate with its run-ways being seen in top plan. Fig. 6 is a perspective view similar to Fig. 2 except that a bed and its containing casing is substituted in one of the receptacles while the other receptacle is illustrated as divided to serve both as a wardrobe and a chest of shelves. Fig. 7 is a view in front elevation of the bed and its casing de-

tached, the bed being seen in its folded position. Fig. 8 is a longitudinally vertical section therethrough with the bed in its unfolded or extended position and the bed operating mechanism shown in elevation, a part only of the bed being seen in section. Fig. 9 is a detailed elevation of a modified form of bed actuating gear. Fig. 10 is an enlarged detailed vertical section through a fragment of the cabinet illustrating certain of the guiding elements, the section being taken on the plane indicated by line 10—10 of Fig. 5.

Referring to the drawing by numerals, 1 indicates a cabinet housing having a top, bottom and back and having sides terminating approximately one-half way of the width of the top and bottom, the front portion of the housing being left open except for a supporting strip or standard 2 connecting the top and bottom of the housing. Thus the rear portion of the housing is closed in while the front portion is substantially open, the opening being divided laterally into open spaces 3, 3, and through which may be projected structures contained by the cabinet housing. The bottom and top guide plates 5, 6, are fixed to the respective bottom and top of the housing and each is formed with guiding grooves 8, 8, extending from front to rear on a straight line substantially parallel with the sides of the housing, the front end of each groove 8 opening into an arcuate groove 10, preferably a quadrant, terminating at its outer end coincident with the outer end of the respective groove 8 and curving thence inwardly and laterally to a point adjacent the line of the middle of the housing, the inner end of each groove 10, being adjacent the corresponding end of the other groove 10 in the respective plate 5, 6.

Slidingly mounted and adapted to be moved within the cabinet housing are receptacles, 11, 12, which are relatively identical in structural formation but bear the relation of right and left with respect to each other and to the cabinet. Each of these receptacles is formed of top, bottom, back and end pieces and has an open side for facility of access. The top and bottom pieces are slotted longitudinally as at 13, 13, for forming guide ways into which project the up-standing and depending pins or studs 15, 16, projecting from the plates 5, 6, for guiding the receptacles in their movements. The

pins 15, 16, are disposed adjacent the front edges of plates 5, 6, and the slots 13, 13, extend substantially throughout the length of the receptacles. The slots 13 thus serve as
 5 run-ways or guiding means, and each receptacle 11, 12, is formed with pins 14, fixed to its upper and lower end and projecting outwardly therethrough into the grooves 8 for being guided thereby. To eliminate
 10 friction each pin 14 may carry an anti-friction roller 17, and rollers 18 are journaled in the plate 5 adjacent the pins 15, 16, for sustaining the weight of the respective receptacle 11, 12. In Fig. 10, I have indicated slot
 15 13 as not going all the way through the material to the bottom of the receptacle, and it is obvious that the depth of the slot is immaterial so long as sufficient room is provided for accommodating the projecting end of the
 20 guiding pin 16. Each slot 13 extends throughout the length of the respective receptacle and terminates adjacent the end walls thereof, and the pins 14 of the respective receptacles are disposed in the bottom
 25 and top of the receptacle in the same relative position to the inner end wall, and at the opposite side of the respective receptacle so that the receptacle may be moved as hereinafter described to the desired position by
 30 reason of the relation of the slots 13 to the grooves 8 and 10 and the pins 14, the inner end of each groove 10 terminating in the longitudinal plane of the cabinet housing occupied by the respective pins 15, 16. In
 35 other words the inner end of each slot 10 is on a direct line straight in the rear of the respective pin 15, 16.

Each receptacle 11, 12, may have such internal arrangement or contain such elements as may be preferred according to the
 40 use to which the cabinet is to be adapted, and as illustrating one such arrangement I have shown receptacle 12 as provided with brackets 23 and hangers 22 for sustaining
 45 articles of clothing, and this particular receptacle may be said to be fitted out as a wardrobe. Receptacle 11 may likewise be fitted out in various ways, as for instance by being provided with shelving 21 forming a
 50 chiffonnier, or, as seen in Figs. 6 to 9 inclusive, a bed structure may be provided for the receptacle and this internal arrangement for the receptacle may be considered as my preferred embodiment in which case the
 55 other receptacle is preferably arranged to serve both as a wardrobe and shelf cabinet or chiffonnier.

Referring more particularly to Figs. 6 to 9 inclusive, the receptacle 12 is provided
 60 with shelving 21 and a suitable partition leaving a wardrobe space, while the receptacle 11 is provided with an interior casing or framing 12' adapted to sustain the bed structure. In Figs. 7 and 8, I have illustrated the casing 12' and its connected parts

as removed from the respective receptacle, and it is obvious that the casing 12' may be fixed within the receptacle if desired or in any way suitably connected thereto, but the disclosure is facilitated by illustration of the
 70 casing 12' and its cooperating parts detached from the cabinet itself. The bed frame structure 26 has its inner end pivotally engaged by a transverse rod 28 whose ends
 75 project into arcuate slots 33 formed in the side walls of casing 12' forming a guiding and limiting means for the frame 26. The extreme inner end portion of the frame 26 extends beyond the shaft or rod 22 and a
 80 shaft 29 extends therethrough and has its outer end portions bent into crank shape and extending past rod 28 with the terminals or the wrist pin parts of the crank extending through the side walls of the casing 12' and forming journals 31, 32. The
 85 crank-like end portions of rod 29 give to the entire rod a sort of U-shape and one of the projecting ends of the journals is preferably fixedly engaged by an operating lever 30 adapted for rocking the rod 29 upon
 90 its journals. The crank-like portions of rod 29 thus constitute practical continuations of the lever 30 on the opposite side from its pivot, whereby, while the leverage is reduced, the purchase on the bed frame is increased. The frame 26 is thus adapted to be
 95 lowered or elevated with a pivotal movement swinging on the journals 31, 32, as the axis of movement and being limited in its extent of movement either upwardly and inwardly or downwardly and outwardly by
 100 the rod 28, the end portions of which engage the ends of the slots 33 at the terminations of possible movements of the bed frame. The shaft 29 is rigidly fixed to the
 105 frame 26 so as to insure the required pivotal movement thereof and for avoiding longitudinal outward thrust of the bed frame as might occur otherwise. The rod 28 also serves to prevent outward movement of the
 110 bed, and to insure the requisite pivotal movement thereof, the end portions of the rod 28 guiding the bed frame and preventing any longitudinal thrust of the bed frame by the engagement of the rod with the side walls of the slots 3, 3. The lever
 115 30 may be retained in either its lower or elevated position, for correspondingly retaining the frame 26, by any of the various suitable locking devices as for instance, a
 120 toothed sector 34 engaged by spring pressed locking pawl 35 carried by lever 30, the sector 34 being fixedly connected to the side wall of casing 12'. Obviously, other forms
 125 of operating means may be provided, as for instance as seen in Fig. 9, journal 31 may be engaged by a fixedly connected pinion 36 meshing with a segmental rack 37 which in turn is pivotally sustained by a pivot pin
 130 37' connected to the side wall of the casing.

An operating lever 38 is fixed to rack 37 for swinging the same about the pivot 37' as an axis, whereby the pinion 36 may be rotated and the bed thus lowered or elevated. Preferably the lever 30 is jointed at an intermediate point for facility of collapsing when it is desired to render the parts compact, or to get the lever out of the way when the bed is ready for use as seen in Fig. 6.

The outer end of the bed is adapted to be sustained when the bed is lowered in any of various ways, as for instance, by a pivotal foot consisting of a plate 27 extending substantially throughout the width of the outer end of the bed and having ears 27' extending upwardly between the sides of frame 26 and pivotally engaging a rod 27'' fixed to frame 26 transversely thereof. The foot piece is thus free to swing vertically and will assume a vertical position so as to sustain the bed frame when the frame is in its lowered position, or when the bed is elevated to a vertical position, the foot piece will swing vertically to the position indicated in Fig. 7 and lie substantially entirely within the planes of the frame 26.

Obviously, the bed is designed to be swung to its closed or folded position for lying within the casing 12' which fits more or less snugly within the respective receptacle.

When the parts are in the position indicated in Fig. 1, and it is desired to gain access to one of the receptacles, say 11, a suitably provided handle on the receptacle is grasped, and the receptacle is drawn outwardly on a straight line as far as it will come outwardly easily, that is, until the pins 14 strike the outer ends of the guiding grooves 8, and the pins 15 strike the inner ends of the slots 13. Thereupon the outer edge portion of the receptacle may be moved laterally to the left, swinging the receptacle on the pins as a pivot. During its swinging movement the pins 14 travel backwardly in an arcuate path provided by the grooves 10, and this pivotal movement of the receptacle is continued until the pin 14 strikes the inner end of the groove 10. At this point the receptacle will be substantially at right angles to the position previously occupied by it and will have its open side exposed for affording free access to the interior of the receptacle. The operation of the receptacle 12 is identical with this, except, of course, that it swings to the right instead of to the left. The return movement merely consists in swinging the receptacle back to an alined or front posi-

tion during which the receptacle swings on pin 15 as a pivot while the pin 14 moves along the grooves 10, and when the receptacle has arrived at the alined position the pin 14 will be in line with groove 8. Thereupon the receptacle may be slid inwardly being guided in its inward movement by the pin 14 traveling in the groove 8, and the slot 13 controlled by the fixed pin 15.

What I claim is:—

In an article of manufacture, the combination of a housing having guiding plates at its upper and lower ends, a receptacle disposed between said plates and extending longitudinally thereof, said receptacle being slidably mounted to be slid longitudinally from a position within the outlines of said housing to a position extending substantially for the full length of the receptacle outside the housing, the receptacle being also adapted to be swung from such outstanding position laterally to a position with one of the faces of the receptacle substantially flush with the front face of the housing, the guiding plates being formed each with a longitudinal groove extending substantially from its rear end to its front end and with an arcuate groove extending from the front end of the longitudinal groove rearwardly and laterally substantially for a quarter of a circle representing the path traveled by one corner of the receptacle when being swung laterally, pins extending upwardly and downwardly from the said corner of the receptacle into said grooves for guiding the receptacle in its movement, the receptacle being formed at its upper and lower ends with longitudinal grooves along its space from the first-mentioned grooves substantially for the full width of the receptacle, the second-mentioned grooves being disposed parallel to the first mentioned grooves when the receptacle is disposed entirely within the housing, and guiding pins extending from the guiding plates upwardly and downwardly into the grooves of the receptacle for guiding the same during reciprocal movement thereof and for serving as a pivot during lateral swinging of the receptacle, said last mentioned pins being disposed adjacent the outer face of the receptacle.

In testimony whereof I affix my signature in presence of two witnesses.

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Witnesses:

C. H. FESLER,
GEO. B. PITTS.