(No Model.) 3 Sheets—Sheet 1.

A. A. ZIMMERMAN.

CABINET FOLDING BED.

No. 458,089. Patented Aug. 18, 1891.

Fig. 2.

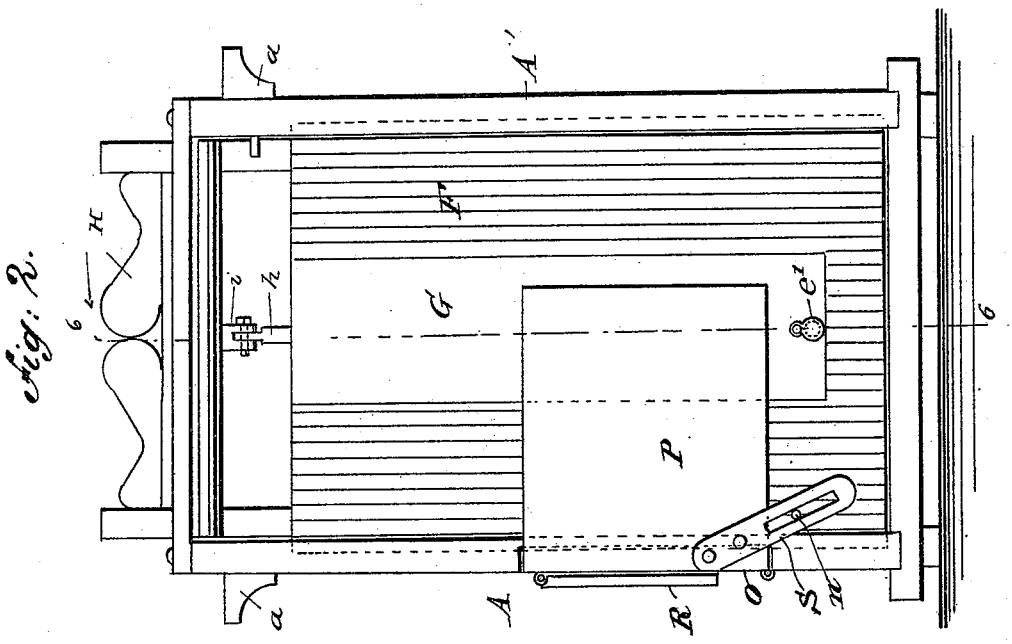
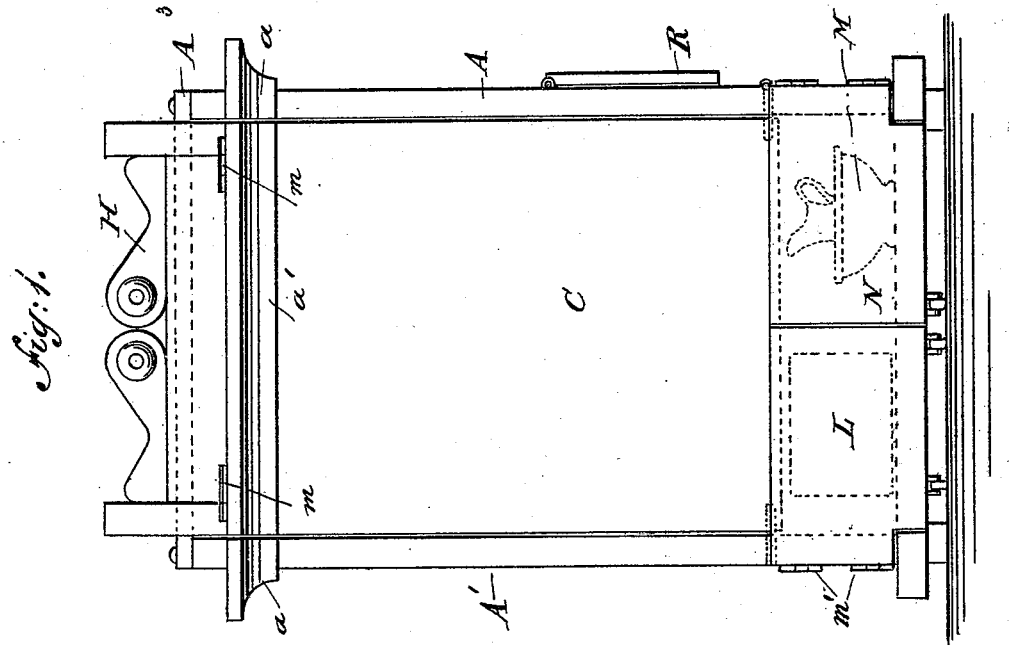


Fig. 1.



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(No Model.) 3 Sheets—Sheet 2.

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Fig: 3.

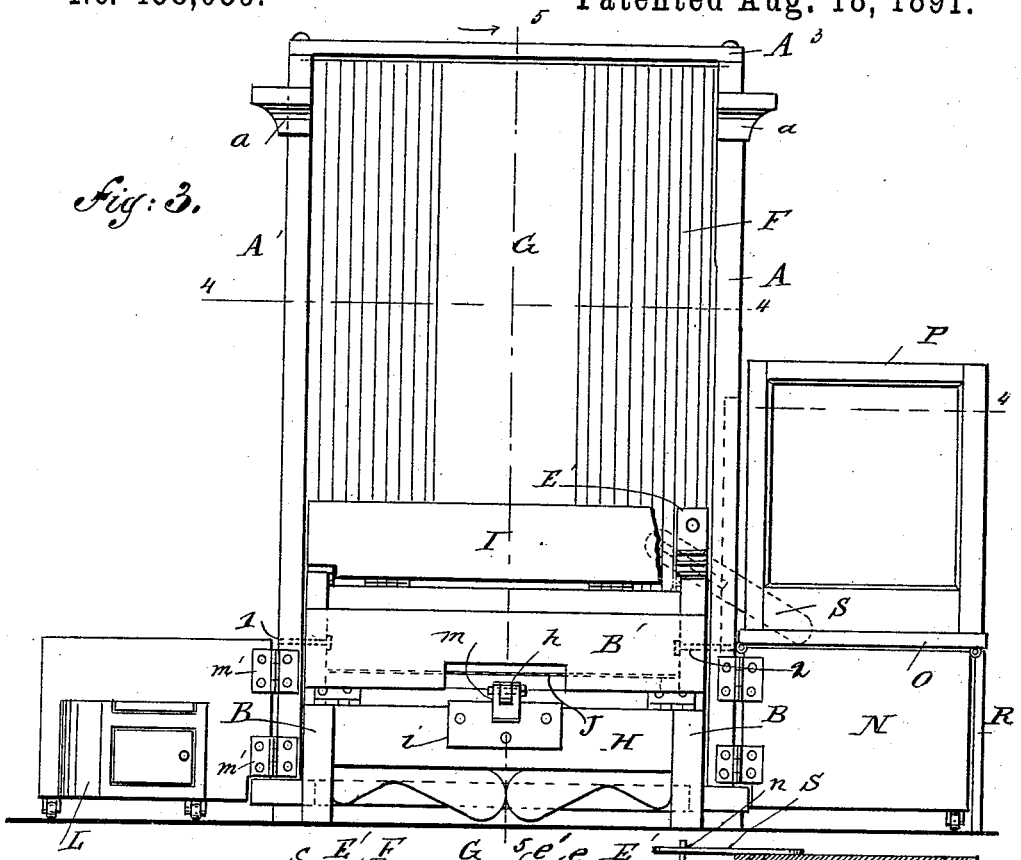

Fig: 4.

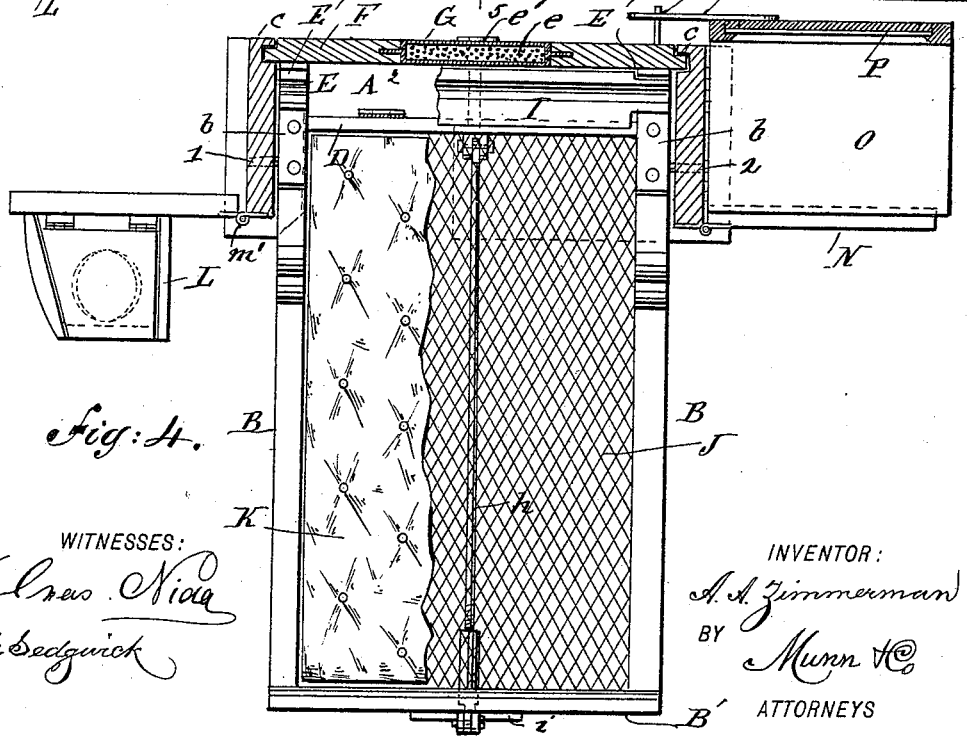

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Fig. 6.

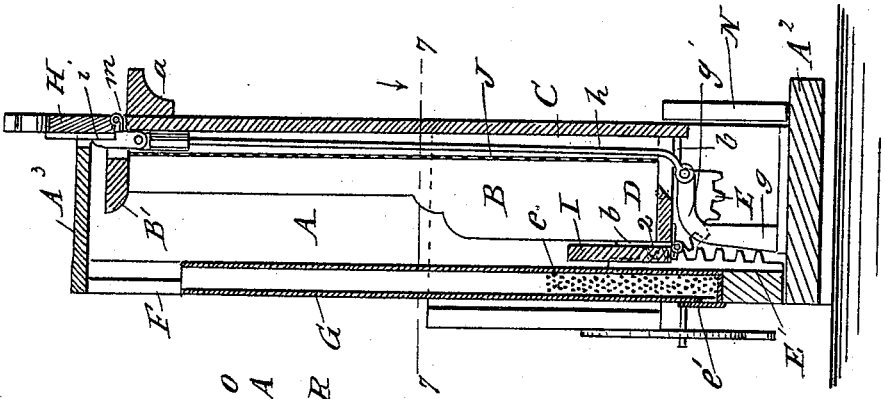

Fig. 7.

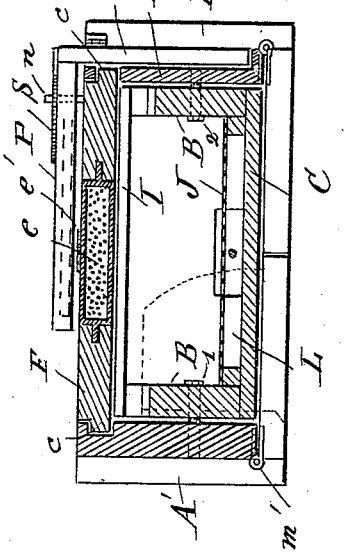

Fig. 5.

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UNITED STATES PATENT OFFICE.

ARTHUR A. ZIMMERMAN, OF NEW YORK, N. Y.

CABINET FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 458,089, dated August 18, 1891.

Application filed December 3, 1890. Serial No. 373,463. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR A. ZIMMERMAN, of New York city, in the county and State of New York, have invented a new and useful Cabinet Folding Bed, of which the following is a full, clear, and exact description.

This invention relates to improvements in folding beds that inclose the entire bed-equipage when in closed adjustment, presenting an ornamental exterior, and has for its objects to provide a folding bed which will contain means for adjustably counterbalancing the weight of the couch portion and equipage belonging thereto, and, furthermore, to provide auxiliary devices which are embodied with the bedstead and are partly automatic in their adjustment, which, when the bed proper is lowered for use, will assume positions along each side of the main structure and afford toilet as well as sanitary adjuncts in compact and convenient form.

To these ends my invention consists in certain features of construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the bedstead in folded condition. Fig. 2 is a rear elevation of the complete device. Fig 3 is a front view of the bed opened, and represents all parts of the device in position for use. Fig. 4 is a plan view, partly in section, taken on the broken line 4 4 in Fig. 3. Fig. 5 is a sectional side elevation taken on the line 5 5 in Fig. 3. Fig. 6 is a sectional side elevation of the device in closed adjustment, taken on the line 6 6 in Fig. 2; and Fig. 7 is a transverse section of the device in closed condition, taken on the line 7 7 in Fig. 6, viewed in the direction of the arrow adjacent to said line.

An upright frame is provided, which consists of two sides A A′, which are retained in a vertical position by the bottom board A^2 and cap-board A^3, there being an ornamental cornice *a* formed on or secured to the sides, which extends around the front corners, which cornice is affixed a short distance below the cap-board, the front corners of the sides being rounded to form a finish above the cornice-molding, as at a^2, in Fig. 5.

The couch-frame of the cabinet-bed, or portion whereon the mattresses and clothing are placed, is constructed as follows: Two side rails B are furnished, which are of like form, and are of a length suitable for their use, and so proportioned as to permit them to pass inwardly below the cap-board A^3 when they are rocked upwardly to close the bed on the pintles 1 2. The side rails are of sufficient height to receive and retain the mattress and wire bottom, as well as necessary coverings therefor, and have their upper edges preferably cut into an ornamental shape near their upper ends, as represented in Fig. 5. The outer ends of the side rails B are connected by the foot-board B′, which is preferably rounded on the inner corner of the upper edge. Upon the edges of the side rails B that are lowest when the couch-frame is lowered a bottom panel C is secured, which extends from a point near the foot-board B′ to the inner terminals of the side rails, which latter are joined at these ends by a head-board D, to the lower edge of which the inner terminal of the bottom panel C is attached, thereby producing a rectangular couch-frame, the bottom panel of which becomes the front of the cabinet when the couch-frame is in an elevated position, as shown in Fig. 6. Two similar toothed sections E are provided, which are affixed by their tangential arms *b* on the side rails B, said arms on each sector projecting in pairs at right angles to each other, so as to allow the arms on each sector to engage the end and upper edge of a side rail, as represented in Fig. 5.

The back board F of the upright cabinet-frame is adapted to slide vertically by a loose engagement of its side edges with longitudinal grooves cut in the sides A A′, as represented in Fig. 7, at *c*, and on the front face of the back board a toothed rack E′ is secured along each side edge, in proper position to be engaged by the teeth of the sector-gears E, so as to permit the vibration of the couch-frame on its pintles 1 and 2 (shown in dotted lines in Figs. 3 and 4) to reciprocate the back board vertically.

Within the back board F, or on its rear side,

as may be preferred, an elongated tubular pocket G is secured, as shown in Figs. 4 and 6, which is designed to receive any heavy material in portable form. Preferably bullets or buckshot *e* are therein deposited in sufficient quantity to nearly counterbalance the weight of the couch-frame and bed-fixtures placed thereon, so that the rocking movement of the couch-frame will be thus rendered easy and but a slight exertion of strength required to raise or lower it. A small gate *e'* is pivoted over an orifice near the bottom of the pocket G, to permit removal of the shot, if desired.

On the bottom panel C, a molding *a'* of the same style as that on the sides A A' is secured on the lower side at such a point as will align it with the cornice-molding *a* on the sides named, so that a continuous cornice is provided thereby for the exterior of the upright frame or cabinet when the bed is in a folded condition.

A bracket arm *g* is secured near the transverse center of the bottom board A^2, which arm projects upwardly a proper height, and is bent at *g'* to extend it forwardly through a slot in the head-board D, and has a jointed connection at its upper end with a link-bar *h*, which is attached pivotally at its opposite end to a bracket-plate *i*, that is secured upon the rocking foot-piece H, which is hinged at *m* to the outer edge of the bottom panel C, the plate *i* being placed upon the upper outer corner of the foot-piece mentioned, as appears in Fig. 5.

The connection of the foot-piece H with the bottom board A^2 in the manner explained will cause the said foot-piece to assume an erect position when the bed is in folded adjustment, thus forming an ornamental scroll above the cornice *a*, which adds finish to the structure.

Upon the head-board D a pillow-rest board I is hinged to fold forward, as shown in Fig. 6, or be inclined against the back board F, as represented in Fig. 5, said back board serving to close the gap at the head of the bed when it is in lowered adjustment.

The usual wire-woven spring-bottom J is secured in the couch-frame above the link-bar *h*, and on this elastic bottom the mattress K is placed removably, whereon other of the bed-equipage is spread, and if the bed is to be rocked upwardly to close it the rest-board I will hold the pillows from displacement if folded against them.

The manner of connecting the couch-frame with the cabinet-frame affords a space below the first-named frame when the bed is in folded adjustment, which is used to connect the closed commode L with the cabinet-frame by hinging it thereto, as at *m'*, on the left side A', which permits the commode to be swung open, which is done before the couch-frame is lowered, and when folded inwardly below said couch-frame, after the latter is elevated to close the bed, a neat finish is provided for the front of the cabinet, which may be made as ornamental as desired.

On the right side A of the cabinet-frame a space is produced below the head-board D, when the couch-frame is folded upwardly, and when in said condition the wash-bowl and pitcher M may be therein placed, as represented by dotted lines in Fig. 1, there being a door N hinged to swing from the slide A outwardly, which adjustment is made prior to the act of lowering the couch-frame, the removal of the toilet articles being also necessary, these latter then being placed upon the level wash-stand top board O, which is hinged to the side A of the cabinet-frame, so as to fold upwardly when the bed is similarly adjusted, and upon the rear side edge of the top board O of the wash-stand a mirror-frame P is attached by one edge.

There is a slotted link-bar S, attached by one end to the rear edge of the mirror-frame P and extended therefrom across the back board F of the cabinet-frame, a fixed stud *n* being inserted through the slot of the link-bar into the back board, thereby connecting the stand-top and mirror-frame to said back board in a manner that will transmit a rocking motion to the stand-top O sufficient to lower it to a horizontal plane, and vibrate the mirror to a vertical position when the couch-frame is rocked outward and downward to arrange the bed for use, and when the stand-top board O is in the position shown in Fig. 3 the cabinet-door N is swung under the front edge of said top board, thus affording support to the top board and a finished appearance to the front of the wash-stand.

It will be evident that a reversal of adjustment of parts will close the wash-stand attachment up against the outer surface of the cabinet side A, which is cut away to allow the top board to lie flush with its general surface, and at the same time the mirror-frame P is rocked behind the back board F of the cabinet-frame, and the closure of the door N and commode attachment, so as to align their vertical panels with the bottom panel C, completes the folding adjustment of the bed, the bowl and pitcher being concealed in the place provided, as has been previously mentioned.

The commode L is preferably mounted upon casters, and there may be other similar rolling supports provided for the cabinet-frame and secured on the bottom board in the usual manner, and, if desired, a prop R may be hinged to the outer side edge of the wash-stand top board O, so as to afford additional support therefor when the parts are in open adjustment.

While it is preferred to construct the bed with the commode and wash-stand attached thereto, it is not imperative that such parts should be so connected, as the novel features of the bed proper may be embodied separately.

The bed complete can be readily taken to

pieces and transported to a point where it is to be erected for use, the facility with which the device may be thus transported being one of the advantageous features afforded in its construction.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the main frame and the vertically-swinging couch-frame and its counter-balance, of a vertically-swinging stand-top hinged to one side of the frame and connected with the said counter-balance to be raised and lowered thereby, substantially as set forth.

2. The combination, with the main frame and the vertically-swinging couch-frame and its counter-balance, of a vertically-swinging stand-top hinged to one side of the main frame, and a slotted link-and-pin connection between said counter-balance and the said stand-top, substantially as set forth.

3. The combination, with the main frame, the vertically-swinging couch-frame, and the vertically-movable counter-balance therefor, of the stand-top hinged to one side of the main frame and provided at its rear edge with a mirror adapted to swing behind the main frame when the top is swung up, and a slotted link-and-pin connection between said stand-top and the counter-balance, substantially as shown and described.

4. A folding bedstead consisting in the vertical frame having its lower front portion closed by hinged doors, a vertically-swinging couch-frame hinged at its head within the lower part of the main frame and having a vertically-sliding counter-balance, the vertically-swinging stand-top hinged to the side of the main frame to rest on one of the doors when both are swung outward, a support hinged to the distal end of the stand-top, a mirror mounted at its rear edge to swing behind the main frame when the stand-top is swung upward, and a slotted link-and-pin connection between the counter-balance and the said stand-top, substantially as set forth.

ARTHUR A. ZIMMERMAN.

Witnesses:
WM. P. PATTON,
EDWD. M. CLARK.