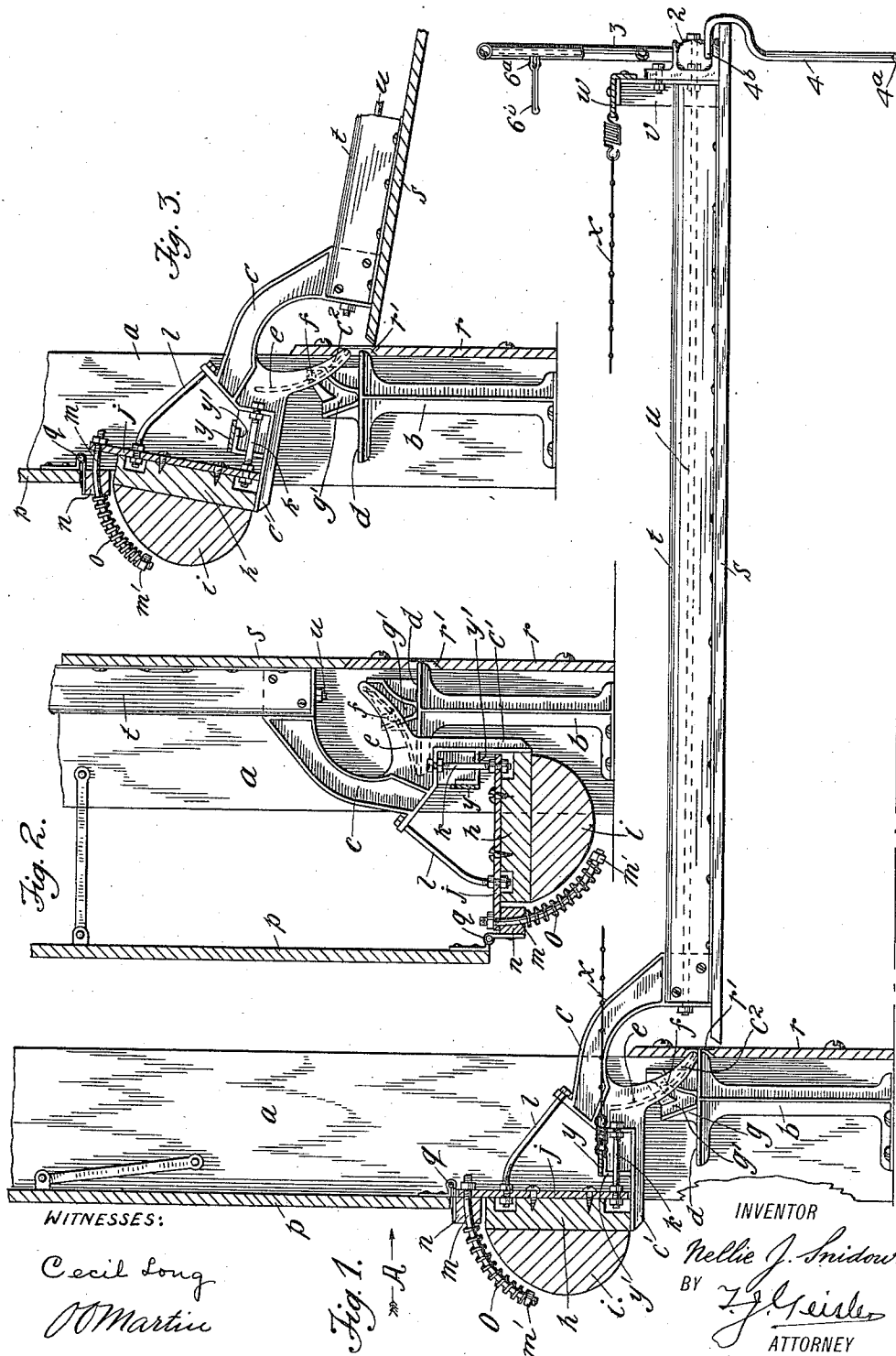


N. J. SNIDOW.
FOLDING OR DISAPPEARING WALL BED.
APPLICATION FILED FEB. 27, 1911.

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Patented Apr. 22, 1913.

2 SHEETS—SHEET 1.

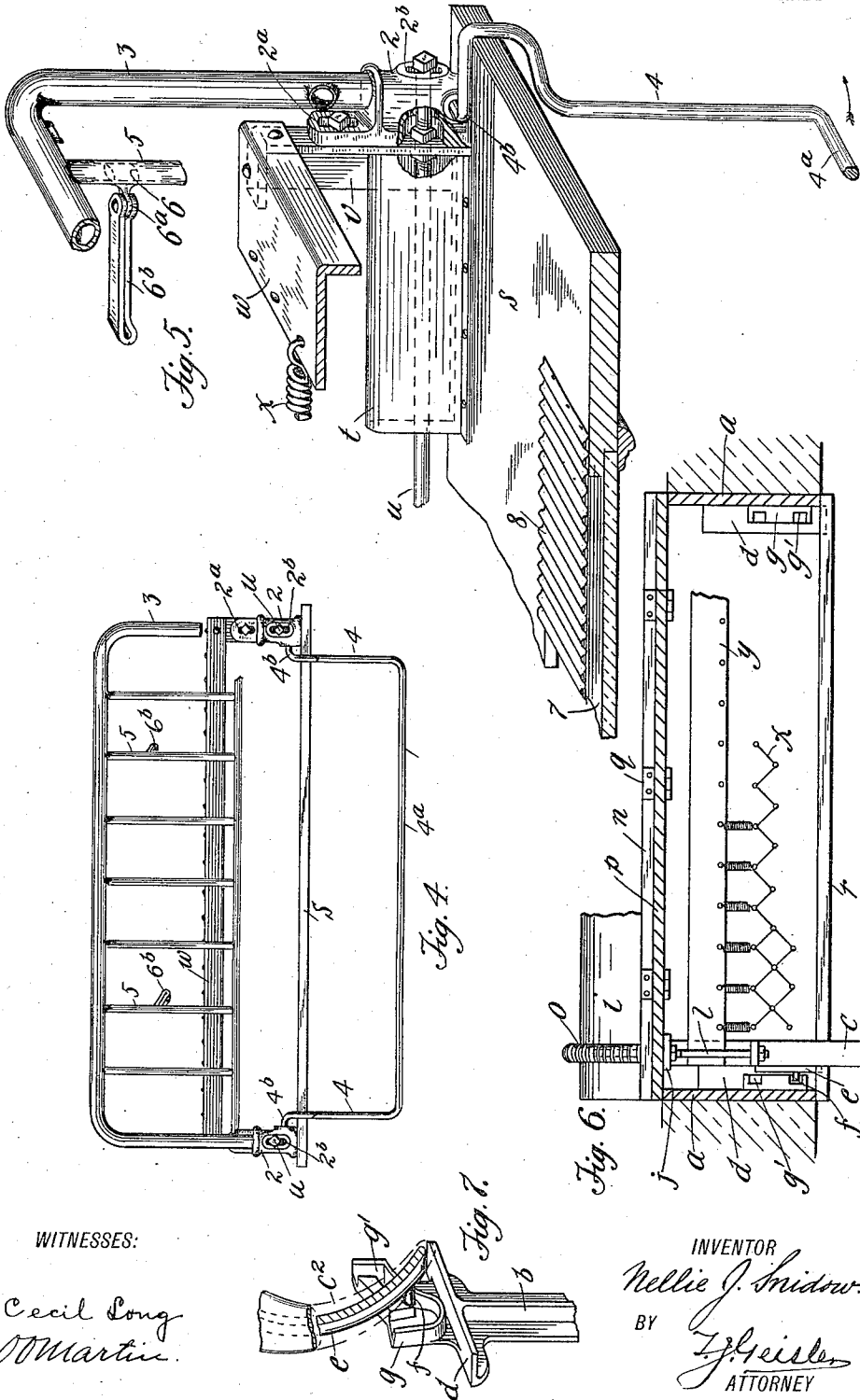


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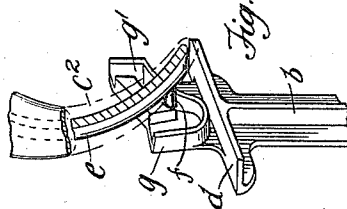
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

NELLIE J. SNIDOW, OF PORTLAND, OREGON.

FOLDING OR DISAPPEARING WALL-BED.

1,059,914.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed February 27, 1911. Serial No. 611,305.

To all whom it may concern:

Be it known that I, NELLIE J. SNIDOW, a citizen of the United States, and resident of Portland, county of Multnomah, State of Oregon, have invented a new and useful Improvement in Folding or Disappearing Wall-Beds, of which the following is a specification.

My invention relates to improvements in disappearing wall beds, and has for its principal objects: to provide a strong and durable bed; also, to so yieldingly connect the bed-frame with the support to which the head-end is fastened that, in case the person opening the bed forgets to place the foot-rest in proper position, there will be no undue strain imposed on the support mechanism of the bed-frame, although the foot of the bed sags down to the floor; also, to so arrange the foot-rest of the bed that it will not project, but to the contrary will be concealed, when the bed is arranged in its upright or closed position; also, to so arrange the parts that when the bed is opened it will fall entirely free from the recess or cabinet in which it is contained when closed. Furthermore, to provide for the adjustment of the devices by which the head-end of my bed-frame is hinged to its containing frame, so as to cause the bed-bottom to fit neatly against the wall, or the front of the cabinet in which my bed is concealed when closed, and for which recess or cabinet the bed-bottom provides, in part, the front panel or closure.

Other features of my invention will appear in the full description thereof herein-after given.

In the accompanying drawings: Figure 1 is a longitudinal section of my bed when arranged in its open position, the section being taken near the far side of the bed-frame; Fig. 2 is a sectional detail taken on the same plane as Fig. 1, and shows the position of the parts at the head-end of my bed, when my bed is arranged in its closed position; Fig. 3 is a section like Fig. 2, and particularly illustrates that though the bed be let down, without having previously properly set the hinged foot-rest, there will, nevertheless, be no undue strain on the parts supporting the head-end of the bed; Fig. 4 is an elevation of the foot-end of my bed; Fig. 5 is a larger scale, partial perspective view of the foot-end of my bed, particularly showing the devices there provided; Fig. 6

is a partial plan section of the head-end of my bed, the section being taken on the plane of the arrow A shown in Fig. 1; and Fig. 7 is a perspective detail of the upper part of one of the legs provided within the frame supporting the head-end of my bed; this figure particularly illustrating the horizontal ledge and run-way provided in the upper portions of said legs, and the mode in which the head-end of the bed is supported by said legs and guided by said run-way during the closing and opening of the bed.

The drawings throughout the views, except Figs. 4 and 6, represent the construction of the parts located on the left, or far, side of the frame of my bed, and it is understood that the corresponding parts on the right, or near, side of the frame of my bed are of like construction, with the exception that they are adapted to their location on the right side of the bed-frame.

The head-end of the bed-frame is designed to be affixed either to a supporting frame set in a recess in the wall, or in a bed cabinet; and in the drawings *a* represents one of the upright sides of the frame contained in a wall recess, or one of the side walls of the cabinet in which the bed is contained. In such frame, or cabinet, there are affixed, at the sides, legs, *b*, by which the upper ends of the sides, *t*, of the bed-frame are supported. The upper ends of each of the legs, *b*, is formed with a horizontal ledge *d*, and with a guide plate *g*, the latter being formed to provide a run-way *g'*. To the head ends of each of the sides, *t*, is affixed an arm *c*, formed with a horizontally projecting member *c'* and a pendant arched member *c''*, the latter being reinforced by a rib *e* and provided with a laterally projecting stud *f*, which, in the opening and closing of my bed, travels in the run-way *g'* of the guide-plate *g*. To each of the arms, *c*, of the sides, *t*, of the bed is affixed, adjustably, by means of bolts *k*, *l*, a vertical plate *j*, and to the plates *j* is removably affixed a horizontal board or plate *h*, which should be of sufficient thickness so as to be rigid and stiff. To the plate, *h*, is affixed, in any convenient manner, a counter-weight *z*.

By reason of adjustably fastening the plates *j* to the arms *c*, in the bed-frame, my bed-frame may be so adjusted as to cause it to fit neatly against the face of the frame of the recess or the cabinet, when the bed is

closed. At the upper ends of each of the plates *j* is affixed an arched bolt *m*, such bolts passing through and supporting a hinge block *n*, which in the drawings is shown as consisting of a bar extending across the width of the bed. On the bolts, *m*, are placed expansion springs *o*, which normally force the hinge block, *n*, against the plates *j*, as illustrated in Figs. 1 and 2 and the strength of the springs, *o*, is adjusted by nuts *m'*, threaded on the extremities of the arched bolts *m*.

To the hinge block or bar, *n*, is secured, by hinges *q*, the closure panel *p*, which follows the movement of the bed-frame from its open and closed position, as illustrated in Figs. 1 and 2; said panel being connected with the sides, *a*, by links *p'*. Thus when the bed is open the panel, *p*, will be positioned as shown in Fig. 1, and constitutes a closure for the back of the frame of the recess. My object in connecting the closure panel *p* with the head-end of the bed sides by yielding means is illustrated in Fig. 3. If, in letting down the bed, the hinged foot-rest 4 is inadvertently not properly placed, thereby causing the bed-frame to sag at the foot-end to the floor, such condition will not impose any undue strain on the devices supporting the head-end of my bed-frame, for the back closure panel, *p*, will merely be moved back on the arms *m*; while, as obvious from Fig. 3, if the connections referred to were of a rigid character an undue strain would be imposed on the parts under the circumstances mentioned.

Across the base of the frame provided in the wall recess, or across the bottom of the front of the bed-cabinet, as the case may be, is affixed a removable panel *r*, which, when the bed is lifted to its closed position, as shown in Fig. 2, forms the bottom closure panel for the front of the recess or cabinet, and the bottom, *s*, of the bed-frame constitutes the connecting upper part of the closure panel for such front. The making of the panel *r* removable is important from a sanitary point of view, since it leaves all parts accessible for cleaning. The panel *r* is provided at the sides with recesses *r'*, in which it accommodates the projecting front ends of the ledges *d* of the legs *b*. In the opening and closing of the bed the bottom ends of the arched members *c*² of the arms, *c*, of the sides, *t*, ride on the ledges, *d*, of the legs *b*, and the studs, *f*, of said members *c*² travel in the run-way *g'* of the guide plates *g* formed at the upper ends of the legs *b*, as mentioned. The side rails, *t*, are mounted on the bed-bottoms, *s*, and they are preferably made of sheet metal and formed in the shape of an inverted U in cross-section. The bottom, *s*, may be made of wood. At the foot ends there are secured to the sides, *t*, vertical angle-bars *v*, by means of through-bolts *u*,

extending through the sides *t*; said through-bolts also serving to draw the arms *c* against the upper ends of the sides *t*. An angle plate, *w*, is secured crosswise on the angle-bars *v*, and serves as a support for the foot-end of the members of the bed-springs, *x*, the opposite ends of which are affixed to a bar *y*, fastened on the top of the lugs *y'*, which are an integral part of the arms *c*. The through-bolts, *u*, also extend through and secure in place sockets 2, 2, in which is set the foot-piece 3; and there are also journaled in the sockets, 2, 2, the hinge ends 4^b of the foot-rest 4. The foot-rest 4 is made of a rod and the side members thereof are connected by a bar 4^a at the bottom. Said foot-rest is adapted to be turned up against angle plate *w* within the foot-piece 3, as apparent by comparing Figs. 4 and 5, thus placing the foot-rest out of the way and causing it to be concealed when the bed is closed.

The sockets, 2, 2, are made with slotted ears 2^a, and the perforations 2^b for the through-bolt, *u*, are also slotted, for the purpose of so adjusting the sockets 2 that the foot-rest 4 will properly support the foot of the bed though the floor be uneven.

As shown in Figs. 4 and 5, the foot-piece 3 of my bed comprises a series of vertical tubular members, of which the members 5 are slotted longitudinally, and in the hollow of each of the members 5 is contained a sliding block 6, having a projecting hinge lug 6^a, to which are hinged arms or bedding clamps 6^b, which, when arranged in extending position, serve to retain the foot of the mattress in place. The means described for slidably mounting the bed clamping arm, *b*, are superior to collars sliding on the exterior of the members 5, because the adjustment of such collars would scratch the paint off the members on which they are mounted.

On the exterior of the bed-bottom may be mounted a mirror 7, and to protect this mirror, and likewise to add strength and lightness to the bed-bottom as a whole, I recommend cutting out the center of the bed-bottom and then covering the inner face of such cut-out portion with a sheet of corrugated metal as at 8 in Fig. 6.

I claim:

1. In a folding bed, the combination of legs for supporting the upper end of the bed frame, said legs provided at their upper ends with a horizontal ledge and with a guide box above such ledge; a bed frame comprising side rails, each formed at its head end with an arm including a perpendicular member, each of said members being provided with a lateral stud, said studs traveling in the guide boxes of said legs, and the pendent members of said arms being adapted to cause the extremities thereof to ride on the ledges of said legs during

the opening and closing of the bed; a transverse head piece affixed to such arms of the side rails; a horizontal rail yieldingly mounted on said head piece; means for holding said yielding rail in its normal position; and a closure panel of the head-piece mounted on said horizontal rail.

2. In a folding bed, the combination of legs for supporting the upper end of the bed frame, said legs provided at their upper ends with a horizontal ledge and with a guide box above such ledge; a bed frame comprising side rails, each formed at its head end with an arm including a perpendicular member, each of said members being provided with a lateral stud, said studs traveling in the guide boxes of said legs, and the pendent members of said arms being adapted to cause the extremities thereof to ride on the ledges of said legs during the opening and closing of the bed; a transverse head-piece adjustably affixed to said arms of the side rails; a horizontal rail yieldingly mounted on said head-piece; means for holding said yielding rail in its normal position; and a closure panel of the head-piece mounted on said horizontal rail.

3. In a folding bed, the combination of a cabinet having an open front and back, a frame hinged to the sides of the bed-frame, a rail movably mounted on the head-piece of the frame, means yieldingly holding said rail in its normal position, and a panel constituting a closure for the open back of the cabinet, said panel hinged on the rail.

4. In a folding bed, the combination of a cabinet having an open front and back, a frame hinged to the sides of the bed-frame, a rail movably mounted on the head-piece of the frame, means yieldingly holding said rail in its normal position, a panel constituting a closure for the open back of the cabinet, said panel hinged on the rail, and links connecting the upper end of the panel with the cabinet.

5. In a folding bed, the combination of legs for supporting the upper end of the bed frame, said legs provided at their upper ends with a horizontal ledge and with a guide box above such ledge; a bed frame comprising side rails, each formed at its head end with an arm including a perpendicular member, each of said members being provided with a lateral stud, said studs traveling in the guide boxes of said legs,

and the pendent members of said arms being adapted to cause the extremities thereof to ride on the ledges of said legs during the opening and closing of the bed; a transverse head-piece adjustably affixed to said arms of the side rails; said head-piece including a counter-weight; bolts affixed at the top of said head-piece; a horizontal rail slidably mounted on said bolts; extension springs mounted on said bolts and arranged to hold said sliding rail in its normal position; and a closure panel of the head-piece mounted on said horizontal rail.

6. In a folding bed, the combination of legs for supporting the upper end of the bed frame, said legs provided at their upper ends with a horizontal ledge and with a guide box above such ledge; a bed frame comprising side rails, each formed at its head end with an arm including a perpendicular member, each of said members being provided with a lateral stud, said studs traveling in the guide boxes of said legs, and the pendent members of said arms being adapted to cause the extremities thereof to ride on the ledges of said legs during the opening and closing of the bed; a transverse head-piece adjustably affixed to said arms of the side rails; said head-piece including a counter-weight; arched bolts affixed at the top of said head-piece; a horizontal rail slidably mounted on said bolts; expansion springs mounted on said bolts and arranged to hold said sliding rail in its normal position; and a closure panel of the head-piece mounted on said horizontal rail.

7. In a folding bed, the combination with a frame for containing the bed when closed, said frame comprising upright sides and being open at the back, of a bed-frame hinged to such containing frame, yielding supports provided on the head-end of the bed-frame; and a closure panel carried by such supports, the latter adapted to bring such closure panel against the back of said containing frame when the bed is opened; said supports being adapted to permit the foot of the bed-frame to drop to the floor after the closure panel abuts against the back of the containing frame.

NELLIE J. SNIDOW.

Witnesses:

CECIL LONG,
O. O. MARTIN.