This invention relates to folding beds. The general object of the invention is to provide a folding bed embodying a cabinet which receives the bed in the folded position thereof and, when closed, has the proportions and appearance of a chest of drawers or other cabinet or chest constituting a desirable article of furniture for any room of a dwelling house, or office, including a livingroom.

A further object of the invention is to provide a combined folding bed and chest of compact dimensions, yet having a drawer for the storage of bed clothing or other articles of linen or the like, and having, in the folded position of the bed, the appearance of a full chest of drawers.

Another object of my invention is to provide a combined folding bed and receiving cabinet therefor, in which the bed comprises a number of sections hingedly connected to each other and adapted to fold together, accordion like, as the result of a push applied to the outer end of the bed and to unfold as the result of a pull applied to the outer end of the bed. Another object is to provide a combined folding bed and receiving cabinet therefor comprising a plurality of hinged bed sections adapted to fold from horizontal use position to vertical stowed positions arranged side by side from front to back of the cabinet, in upstanding positions.

Another object of the invention is to provide, in a combination folding bed and receiving cabinet therefor, mechanism connecting the inner end of the bed to the cabinet in such a manner as to cause the inner bed section to fold to an upright position within the cabinet as the result of a push applied horizontally to the inner section from the outer section of the bed, and to swing downwardly from such vertical stowed position to a horizontal use position as a result of a pull applied to its outer end by the outer bed section.

A further object is to provide, in a folding bed comprising a plurality of hinged together sections adapted to move from a horizontal use position to upstanding stowed positions, an arrangement in which the respective sections are supported directly upon a floor or supporting surface, said supporting means being adapted to travel horizontally upon said floor surface in the movement of the sections to and from stowed position.

The foregoing general object has been accomplished generally by the utilization of a bed comprising three sections, namely, a foot section, an intermediate section hinged to the foot section at the lower surface of the bed so that these two sections may break upwardly, and a head section connected to the intermediate section by multiple pivot hinge mechanism which allows the head and intermediate sections to break downwardly as readily as if they were hinged together at the upper surface of the bed, but is positioned almost entirely below the bottom level of the bed in its extended position, so as not to interfere with the cushioning action of the bed. Means are then provided to cause the head end of the head section to swing upwardly as the head and intermediate sections break downwardly, and the foot section is so mounted that the pressure applied to it for pushing the bed into the closed position will naturally result in a downward movement of its foot end and an upward movement of the hinge joining it to the intermediate section, whereby the two hinge connections will automatically break in the direction indicated and the sections will move to their stowed positions purely as the result of the push applied to the foot end of the bed.

One of the problems involved in achieving this result has been that of providing suitable means for connecting the head end of the head section to the cabinet or other head support so as to cause the head end of the bed to swing upwardly in the movement of the bed toward the stowed position. A particular aspect of this problem was a requirement that the suspending means for the head of the bed be capable of guiding the head end of the bed from its extended position to a stowed position in a direction more horizontal than vertical. In the stowed position of the bed sections, their upper ends have only slight clearance from the top of the storage space. It is to be understood in this connection that one of the objects of the invention is to provide for a compact arrangement of the bed section in the storage space, utilizing practically all of the storage space, this being particularly important where the storage cabinet is in the form of a chest or other article of furniture sufficiently low to present a pleasing effect. It is especially important where (as in the embodiment of the invention herein chosen as an example of the preferred form of the invention) there is embodied a drawer above the storage space, cutting down the height of the available space for storage. It is therefore deemed necessary to pivot the swinging links (by which the head of the bed is suspended) on an axis no higher than the height of the head end of the bed in its stored position. The requirement for a predetermined height of
the bed from the floor therefore determines the distance between the head end of the bed and the axis of swinging movement of the suspending mechanism. This is less than the distance from the axis to the rear of the storage compartment. This necessitates the movement of the head end of the bed rearwardly and upwardly in a direction more rearwardly than upwardly. This requirement is met in the present invention by employing suspension devices each comprising a pair of links pivotally connected together, together with means for limiting the movement of the respective links in such a manner as to bring the head end of the bed to the proper position when the bed is extended.

An important characteristic of the invention is the mounting of the foot section of the bed upon a carriage which rolls upon the floor and pivotally supports the foot section so that the latter may pivot with reference thereto. The pivotal connection between the foot section and this supporting carriage is located sufficiently forwardly of the foot of the bed so that by pressing downwardly against the foot end and simultaneously pushing it toward the cabinet, the foot section will be caused to tilt in the proper direction to break, in an upward direction, the hinge between it and the intermediate section. In order that it may maintain stability against tipping, this carriage extends to a substantial distance horizontally on either side of its pivot axis. This creates the problem of interference between this carriage and the intermediate section as the sections approach the stowed position. This problem has been taken care of by spacing the end brackets of this carriage outwardly sufficiently to pass or overlap the roller supports for the two hinge connections of the bed.

Another problem has been that of providing adequate support for the hinge between the intermediate and foot sections in the extended position of the bed. While theoretically it looks possible with such a hinge, breaking upwardly, to provide in the hinge itself means to rigidify the two sections in the horizontal position, from a practical standpoint it has been deemed inadvisable to rely upon such a hinge for support over extended period of service. In this connection it is an object of the invention to provide a bed of rugged and durable construction, that will not collapse under ordinary usage. Accordingly, the invention contemplates the use of roller supporting means at the outer hinge, and in order that such supporting means may properly fold between the intermediate and outer bed sections in the stowed position of the bed, there is provided a hingedly supported roller support at each side of the bed, tied together by yielding means which resist their spreading apart and which cooperate with stop means to position them in upright positions in the extended position of the bed and permit them to accommodate themselves to folding of the two sections together by hinging with reference to their respective bed sections. These roller supports are adapted to have whatever brief rolling connection with the floor is necessary in the final stage of extending movement and the initial stage of folding movement, but quickly lift off the floor and are thereafter free to accommodate themselves to stowed positions between their respective sections.

The invention is further characterized by the provision of roller support mechanism for the head and intermediate bed sections adjacent the hinged connections therebetween, said roller support mechanism providing roller support at points spaced longitudinally of the bed; providing roller supports that maintain supporting engagement with the floor while the bed sections shift from vertical to upright positions and vice versa; and providing a hinged connection between these two bed sections which is adapted to yield to permit a limited amount of spreading movement between these sections to avoid interference between the adjacent corners of the springs thereof during the folding and unfolding movements. The roller support mechanism further includes spring or equivalent yielding means for urging the above referred to separation of the sections during the hinging movement. It also includes means for latching the parts together in a rigidified relationship in the extended position of the bed. All of these characteristics constitute further objects of the invention.

Another object of the invention is to provide a foldable bed in several sections embodying three independent spring sections hinged together, and a mattress in two sections one of which is foldable to conform to the hinging movements of the spring sections. A further object is to provide a bed having means for hinging the sections together in such a manner as to permit the mattress to be folded between the two sections that break downwardly, without interfering with the hinging movement thereof.

A further object is to provide a combined folding bed and receiving cabinet therefore embodying a door mounted for movement from a position closing the front of the cabinet, with the bed stowed therein, to a position removed from the space into which the bed is stowed. In the preferred form of the invention herein disclosed, this is accomplished by utilizing a door panel having a combined pivotal and sliding connection with the cabinet at the upper forward corner of the storage space, such that the door may be swung upwardly from its normally closed position to a horizontal position in which it may be slid rearwardly into the cabinet at the top of the storage space, with its lower surface in a plane that is just cleared by the bed sections as they fold into the cabinet. The invention further provides for a head board constituted by a section of the door panel which hinges downwardly from the panel as in the retracted position just described, and a cooperating panel section hinged to the head of the bed and adapted to swing upwardly to meet the depending section of the door panel. The head panel section is also adapted to fold downwardly against the upper surface of the head section of the bed, thereby to assist in retaining the covers in place.

Other objects will become apparent in the ensuing specifications and appended drawings in which:

Fig. 1 is a perspective view of my improved cabinet bed, with the bed in an intermediate position between the extended and stowed positions;

Fig. 2 is a front view of the cabinet, closed;

Fig. 3 is a transverse sectional view of the cabinet with the door panel in the retracted position, taken on line 3—3 of Fig. 2;

Fig. 3a is a detail sectional view taken on a portion of the line 3—3, but with the door panel moved forwardly of its Fig. 3 position;

Fig. 4 is an isometric detail view of portions of the frame of the intermediate and front sect-
tions of the bed, together with the associated roller support mechanism;

Fig. 5 is a transverse sectional view of the cabinet, showing the bed in an intermediate position of extending movement;

Fig. 6 is a transverse sectional view of the cabinet showing the bed in the fully extended position ready for use;

Fig. 7 is a longitudinal horizontal sectional view of the cabinet with the bed folded therein, taken on the lines 7—7 of Fig. 2;

Fig. 8 is a detail sectional view showing the spreading of the inner hinge during the intermediate stage of folding or unfolding movement of the head and intermediate sections;

Fig. 9 is a detail of the hinge between the respective brackets of the roller support mechanism connecting the head and intermediate sections; and

Fig. 10 is a detail sectional view showing the overlapping of the inner roller support carriage by the outer roller support carriage, taken as indicated by the line 10—10 of Fig. 6.

As an example of one form in which the invention may be embodied, I have shown in the drawings a folding bed having a cabinet in the general shape of a chest and having the general appearance of a chest of drawers in the closed position thereof shown in Fig. 2. The cabinet includes upright end walls 11, a rear wall 12, a top 13, drawer slides 14 secured to the end walls 11 below the top 13 to define a drawer compartment 15 in which is slidably mounted a drawer 16; and a door panel 17 which is mounted in the cabinet by means of pins 18 (Fig. 3a) projecting from its opposite ends at its normally upper edge and engaged in grooves 19 in the end walls 11.

The grooves 19 terminate in forward ends 20 disposed just rearwardly of the plane of the front of the chest cabinet. When the hinge 18 engages the forward ends 23 of the groove 19, the door panel is swung downward from the horizontal position shown in Figs. 1, 3, 5a, 5 and 6 to the depending closed position shown in Fig. 2.

The ends 20 function as stops to prevent the door panel being pulled entirely out of the cabinet. From the closed position of Fig. 2 the door panel may be swung upwardly and forwardly until it reaches a horizontal position, and then may be pushed rearwardly, its intermediate portion supported by and sliding upon the upper ends of bearing plates 21, and its rear extremity supported by the pins 18 sliding in the grooves 19.

In its raised position, the door panel 17 defines the top of a bed receiving compartment 22. In this compartment is normally stored the folding bed which comprises a head section 23, an intermediate section 24, and a foot section 25. Each of these sections comprises a frame which, although it may be constructed from wood, metal or other suitable material, is shown in the form of a pair of longitudinal side bars joined by transverse bars, all of wood. These side bars are indicated at 23, 23' and 23'' respectively in the three sections A, B and C and the transverse bars are indicated at 24, 25 in the section A, 24', 25' in the section B, and 24'', 25'' in the section C. Secured to the upper faces of these three frames are supporting plates 26, 26' and 26'' (Fig. 5) which may be of %2" plywood or other suitable, relatively thin sheet material having adequate strength and stiffness to support the spring sections 27, 27' and 27'' respectively.

The individual springs of spring sections 27, 27' and 27'' may be secured to the bottom plates 26, 26', 26'' (as by stapling) and covered by fabric covers 28, 28', 28'', which covers may extend down over the sides of the frames and be secured in any suitable manner. The spring sections, as secured by covers 28, 28', 28'', are of box spring form, although it is understood that other known types of springs, such as tensioned webbing stretched between angle iron frames, or metal links, could be employed.

The frames of the head and intermediate bed sections A and B are connected by connecting devices D (Fig. 8) including hinges 29, and the frames of intermediate and foot sections B and C are connected by hinges 30. The hinges 30 are located at the lower surface of the sections B and C, in the extended position of the bed, so as to permit the sections B and C to break upwardly, and the connecting devices D are constructed so as to provide for downward breaking of the Sections A and B, when the bed is being folded to the stowed position. The hinges 29 are not, however, located at the upper surface of the bed in the extended position of the bed, as shown in Fig. 10.

This would impair the cushioning function of the bed, and one of the objects of the invention is to provide a connecting mechanism which will permit the head and intermediate sections to break downwardly and yet is disposed almost entirely below the level of the mattress and the springs when the bed is extended so as not to cause any uncomfortable projection in the region of cushioning support that is provided by the bed. To this end, the hinges 29 are employed to connect together pairs of roller support brackets 31 which, as shown, comprise simply rectangular blocks of wood, and the brackets 31 are in turn pivotally connected by pivots 32 to the frames of bed sections A and B at the outer upper corners of the brackets 31. The pivots 32 are carried by mounting plates 45. The hinging of the sections A and B with reference to each other results primarily from the pivoting of these sections about the pivots 32. The brackets 31 were rigidly connected together or were in the form of a single integral member, the pivots 32 would be fixedly spaced from each other and the upper adjoining corners of the springs 27, 27' of the bed sections A and B would come together and interfere during the intermediate stage of hinging movement shown in Fig. 5. The springs are not sufficiently yieldable to satisfactorily allow for such interference, and accordingly, the invention provides for spreading the pivots 32 apart in order that these corners of the springs may pass during the hinging movement. This spreading is provided for by the hinging of the brackets 31 about the hinge 29, the upper extremities of the brackets 31 spreading apart to the positions shown in Figs. 5 and 8 at the stage of maximum interference. As the sections A and B approach either the fully extended or fully folded positions, however, the pivots 32 are permitted to move toward each other sufficiently for the bracket 31 to return to the adjoining positions shown in Figs. 3 and 6. Such return of the brackets to adjoining positions is accomplished by a tension spring 33 (preferably a coil spring) the ends of which are received in bores 34 in the brackets 31 and anchored to the brackets at their ends. These springs are stretched as the brackets 31 move apart and retract in drawing the brackets back together, until they are completely enclosed within the bore 34.
Fig. 9 shows the hinges 29 in detail. Each hinge comprises a pair of bars 35, 35′ secured to respective brackets 31, and connected by a hinge pin 36. One of these bars, e.g. the bar 35, has an end portion of reduced width provided beyond a pivot 38 and adapted to engage a stop pin or lug 33 projecting from the other bar, e.g. 35′ so as to limit the spreading of the brackets 31. In the normal adjoining positions of the brackets, the end portion of reduced width is spaced below the pin 36, as shown in Fig. 9. Fig. 36 shows the hinges 39, 39′ which engage the floor 40 at all times including the tilting of the brackets 31 in their spreading movement above described. The tilting is not sufficient to bring the outer lower corners of the brackets 31 in contact with the floor. The brackets 31 are adapted to be latched together in the extended position of the bed by latch hooks 14 each pivoted to one bracket 31 and adapted to engage a pin 75 mounted in the mating bracket 31. By locating the pivots 52 inwardly of the roller 59, the latches 14, 75 may be dispensed with and the brackets held together by the weight of a person resting on the bed.

The foot section of the bed is supported upon roller support mechanism E including a pair of brackets 41 connected by a shaft 42 to the respective ends of which the brackets 41 are secured, and a pair of rollers 43 at the lower corners of each of the respective brackets 41. The rollers 43 are sufficiently spaced apart longitudinally of the bed, and the shaft 42 is sufficiently centrally disposed between the rollers 43 to prevent any tipping of the roller support mechanism E when a pull or a push is applied to the foot section of the bed. The shaft 42 passes through side members 23′ of the frame of bed section C, and through bearing plate 44 secured to the outer sides of the members 23′. It will now be apparent that the foot section C may pivot about the shaft 42 while the roller support E travels on the floor 40.

Support for the hinged together ends of the head sections B and C is provided by roller supports F comprising separate arms 45 and 45′ hinged at their inner ends to respective side frames 22′, 22′′ by means of right angle bends constituting trunnions 41 that are journalled in bores in the respective members 22′, 22′′ and in openings in brackets 46 which are secured to the inner faces of the members 22′, 22′′. The brackets 46 have at their inner arms stop lugs 45 against which the arms 46, 46′ may engage to limit the movement of the arms 46, 46′ toward each other. A coil spring or other tension means 50 connects together the arms 46, 46′ of each pair of roller supports F, and urges the arms 46, 46′ against the lugs 45 in the extended position of the bed. As the bed sections B and C fold together, however, the arms 46, 46′, are permitted to approach each other and the tension of springs 50 is relaxed, as indicated in Fig. 5. The lower ends of arms 46, 46′ are bent at right angles in opposite directions (away from each other) to provide trunnions 51 of which are journalled rollers 52, 52′. The rollers 52 are, because of the opposite directions in which the trunnions 51 extend, disposed in different planes so that the rollers 52, 52′ may overlap as the sections B, C come together. In this overlapping relation, the rollers 52, 52′ (and the arms 46, 46′) are received in the space 50 (Fig. 1) defined within the perimeter of the frames of the bed sections B and C respectively, and between the supporting plates 26′, 26′′.

The foot end of bed section A is suspended from bearing plates 21 through the medium of two pairs of suspension links each including a link 54 pivoted at 55 to a bearing plate 21 and a link 55 pivoted at 57 to a respective link 54 and pivoted at 58 to the frame of bed section A at the head end thereof. The combined length of the links 54, 55 is such as to permit the head section A to move to a folded position closely adjacent the rear wall 12. The pivots 55 are disposed as near as possible to the front of the cabinet in order that the head section A may be allowed to substantially completely emerge from the storage space, with its head end disposed substantially in the forward plane of the cabinet as indicated in Fig. 6. The distance from the pivots 55 down to the pivots 58 in the extended position of the bed shown in Fig. 6 is, however, considerably less than the horizontal distance between the sections 55 and 58 in the folded position of the bed. Consequently, the links 54, 55 must fold toward each other in order to permit the pivots 55, 58 to become more closely spaced as the bed is extended. The pivots 57 permit this folding movement of the links 54, 55, and in order to control the movement of the head of the bed as it approaches the fully extended position, I provide stop pins 59 which are mounted in the bearing plates 21 and engage the links 54 before the latter reach completely depending positions, supporting the links 54 in the inwardly and downwardly inclined positions of Fig. 6. I also provide stop pins 60 which engage the links 56 and limit upward and forward swinging of the latter links around the pivots 57 so as to determine the height of the head end of section A when the bed has been fully extended. This height is of course determined so that the section A will be level.

The ends of the links 56 adjacent the pivots 58 are offset inwardly as indicated at 61 in Fig. 5, so that the links 55 and the major portions of links 56 may lie adjacent the side walls 11 of the cabinet, while the offsets 61 are adjacent the sides of the bed section A. The purpose of this offsetting is to provide for inward spacing of the sides of the bed sections from the cabinet walls 11 to make room for disposing the roller supports D and E in different planes, whereby to permit these roller supports to overlap each other in the folded position of the bed as indicated in Fig. 3. The spaced planes of the brackets 41 and 41 of the roller supports D and E respectively is shown in Fig. 7. The foot section C carries a mattress section 76 of corresponding shape and area. Mattress sections 76, 76′ are preferably secured to the
respective spring sections 27, 27', 27", as by means of fabric covers enclosing the mattress sections and attached to the spring covers 28, 28', 28". Mattress section 76 is adapted to fold between spring sections 27, 27'. To this end, the mattress sections are preferably of foam rubber, although they could be fiber stuffed mattress sections, or, in some cases, inner spring mattress sections, could be used.

Secured to the head of the frame of bed section A is a head board comprising a fixed section 63 and a folding section 64 hinged to the section 63 at 65. Section 64 is adapted to fold down against the covers at the head of the bed as shown in Fig. 5, thereby aiding in securing the covers in place. It is adapted to be extended to a position in the plane of the section 63 as shown in Fig. 6, to provide a head board for the extended bed. The door panel 17 has a hinged section 66 which is attached to the main body of the panel 17 and adapted to fold downwardly to a depending position shown in Fig. 6, in the plane of the head board 63, 64.

The foot section C is provided with a foot board 68 which has a hand hole 59 providing a hand e 70 by which the foot section may be grasped for manipulating the bed.

In the operation of the bed, when it is stowed to its extended position, the operator first raises the door panel 17 and slides it back to the position shown in Figs. 1 and 6, the panel section 66 in the horizontal position. The operator then grasps the handle 70 and simply pulls the bed outwardly through the open front of the cabinet, the bed sections B and C simultaneously moving bodily outwardly and opening downwardly as indicated by arrows 71 and 72 of Fig. 5 and the head section A swining downwardly and outwardly as indicated by the arrow 73 of Fig. 5. The roller supports D will open in concert with the upward opening of the sections A and B, such opening of the roller supports D being arrested by the engagement of fingers 31 with pins 38 in hinges 39. The opening of roller supports D will result from the weight of the sections A and B applied to hinge pins 32 outwardly of the points of contact of rollers 39, 39' with the floor. The sections A and B will continue to open beyond the point where the opening movement of roller support D is arrested, the adjacent covers of these sections swinging upwardly and toward each other until they reach the level of the pivots 32, where they will pass each other (with clearance that has been provided with the opening of roller supports D) and move on up to the positions, shown in Fig. 6, in which the bed is extended. The horizontal plane of the bed sections lie almost completely above the level of pivots 32. The operator will then push the brackets 31 together to close the gaps between them, and will fasten the brackets 31 together by means of latches 74, 75.

During the terminal stage of the opening movement, the bracket arms 45, 46' of roller supports F will have been engaged by lugs 49 and thereby spread apart to parallel positions in which their rollers 52, 52' will engage the floor and rollingly support the hinge 30 up to the end of the opening movement.

During the terminal stage of downward and outward swinging movement of the head section A, the suspension arms 54 will engage the pins 59 and be thereby stopped, and from that point on, the further outward movement of the head section will result in upward and outward swinging movement of the above mentioned links 56, until the latter engage pins 60 will determine the final position of the head section in the general horizontal plane of the extended bed.

To return the bed to the stowed position, the operator simply unlatches 74, 75 and then pushes downwardly and inwardly against the foot end of section C, causing the sections B and C to break upwardly and the sections B and A to break downwardly. Continuation of the push will result in the three sections folding together accordion like and entering the cabinet.

While I have shown and described my improved bed in connection with a receiving cabinet, it is to be understood that the bed could be utilized without a cabinet. For example, the suspension links 54 could be attached to any fixed support, such as a wall of a room, and the folded bed sections could be left exposed or draped with a screen or curtains. Also, the door panel 17, instead of being of a vertically swinging and horizontally sliding type, could embody horizontally swinging or horizontally sliding double doors.

I claim:

1. In a folding bed, a cabinet providing a storage space, a sectional bed including an inner end section and an outer section connected to said inner end section for relative folding movement, means connecting the inner end of said inner end section to the cabinet for swinging movement of said end section from an upstanding position in the rear of the storage space to a horizontal extended position substantially completely withdrawn from the cabinet, said connecting means comprising a pair of links pivotally connected together in end-to-end relation, one of said links being pivotally connected to the cabinet in the upper forward region of the storage space for downward and forward swinging movement and the other link being pivotally connected to the inner end of said end section for downward and forward and thence upward and forward swinging movement, and means to arrest such downward and forward movement of said one link before it reaches a vertically depending position.

2. A folding bed as defined in claim 1, including means to arrest forward movement of said other link after it has passed through a vertically depending position, and to thereby position the adjacent end of said end section at a predetermined height.

3. In a folding bed, a cabinet providing a storage space having a height not more than about half the length of the bed, a plurality of bed sections including an inner end section, an intermediate section, and an outer end section, means connecting the inner end of said inner end section to said intermediate section for downward breaking and folding of these two sections from said horizontal extended position to the stowed position, with the intermediate section stowed in said storage space immediately alongside and parallel to said inner end section, and means whereby said outer end section is hinged to the intermediate section for upward breaking of these two sections from the horizontal extended position to the stowed position, with the outer end section stowed in said storage space immediately adjacent and parallel to said intermediate section.
4. A bed as defined in claim 3, in which said connecting means includes combined roller support and pivotal connecting means joining said inner end section and intermediate section for combined spreading movement and pivotal movement about axes adjacent the bottoms of said sections in which said sections include springs the corners of which, during such pivotal movement, are guided past each other without interference as the result of said spreading movement, said connecting means further including supporting rollers for travelling on a floor surface or a supporting surface immediately adjacent a floor surface.

5. In a folding bed, a pair of bed sections each provided with spring sections, and means joining said bed sections for downward breaking from a horizontal extended position, said means comprising a pair of brackets, hinge means joining said brackets to each other at their lower adjacent extremities, and pivots joining said bed sections to the respective brackets at points disposed above and outwardly on either side of the axis of said hinge means and near the bottoms of said bed sections, said hinge means providing for suspending of the upper extremities of said brackets to allow the adjoining upper corners of said spring sections to pass each other without interference during the pivotal movement of said bed sections.

6. A folding bed as defined in claim 5, including spring tension means connecting the upper extremities of said brackets and normally drawing them together.

7. A folding bed as defined in claim 5, including means to latch the inner extremities of said brackets together in adjacent relation.

8. A folding bed as defined in claim 5, including supporting rollers at the lower outer extremities of said brackets, adapted to travel on a supporting surface and to facilitate said spreading movement while supporting said bed sections.

9. In a folding bed, means providing a fixed support and anchor, a plurality of bed sections including an inner end section, an intermediate section and an outer end section joined in series relation for accordion folding from an extended horizontal position to a stowed position in which the three sections are arranged in side by side, immediately adjacent, upstanding relation, and vice versa, and roller supports for the respective sections on which they may travel horizontally on a floor surface to and from the stowed position, and means suspending the inner end of said inner end section from said fixed support for swinging movement between said positions.

10. In a folding bed, means providing a fixed support and anchor, a sectional bed including an inner end section, an intermediate section and an outer end section, each provided with a spring section, means joining the inner end section to the intermediate section, said means including a pair of bracket members to the upper extremities of which said inner end section and intermediate section are pivotally connected for upward swinging movement from a horizontal extended position to upstanding, immediately adjacent positions, said bracket members being hinged together near their lower extremities for spreading movement of their upper extremities to permit the upper adjacent corners of the corresponding spring sections to pass without interference, rollers on said brackets, for rolling engagement with a floor surface to support said bracket members and the bed sections supported thereby for rolling movement toward and from said fixed support, hinge means connecting said intermediate section to said outer end section for upward breaking from the extended position toward an upstanding position: said intermediate section adjacent the intermediate section, roller support means for supporting said hinge means for rolling movement on said floor surface, and means connecting the inner end of said inner end section to said fixed support for swinging movement between said extended and upstanding positions.

11. In a folding bed, means providing a fixed support and anchor, a sectional bed including an inner end section, an intermediate section and an outer end section, connecting joints connecting the inner end section to the intermediate section and the intermediate section to the outer end section for accordion folding of the three sections from extended horizontal positions in a common level plane to side-by-side upstanding stowed positions adjacent said fixed support, with the joint between the inner and intermediate sections breaking downwardly and the joint between the intermediate and outer sections breaking upwardly from the extended position, and roller supports for supporting each of said joints for rolling movement on a floor surface between said extended and upstanding positions.

12. In a folding bed, a cabinet providing a storage space and a fixed support at the rear thereof, a sectional bed including an inner end section, an intermediate section and an outer end section, connecting joints connecting the inner end section to the intermediate section and the intermediate section to the outer end section for accordion folding of the three sections from extended horizontal positions in a common level plane to side-by-side upstanding stowed positions adjacent said fixed support, and received in said storage space with the joint between the inner and intermediate sections breaking downwardly, and the joint between the intermediate and outer sections breaking upwardly from the extended position, and roller supports for supporting each of said joints for rolling movement on a floor surface between said extended and upstanding positions.

13. A folding bed as defined in claim 11, in which the roller support for the joint between the intermediate and outer sections comprises a pair of arms hinged to these respective sections adjacent their connecting joint, and adapted to have swinging movement toward their respective sections, yielding tension means connecting said arms for urging them toward each other, and means for limiting such movement toward each other so as to cause said arms to be drawn by said yielding tension means into positions parallel to each other and at right angles to their respective bed sections when the latter are in the extended position.

14. A folding bed as defined in claim 11, including roller support means for the outer bed section, comprising a pair of brackets having extended bases, rollers supporting the respective corners of said bases, and a shaft the respective ends of which are secured to the upper extremities of the respective brackets intermediate the respective rollers, said shaft pivotally supporting an intermediate region of said outer section, whereby a downward and inward push against the outer end of said outer section will result in the breaking of said joints as aforesaid.

15. A folding bed as defined in claim 14, wherein
said brackets are spaced outwardly of the roller supports for the joint between the inner and intermediate sections and adapted to overlap said last mentioned roller supports in the said stowed positions.

GENE CHAPPELL LOCHRIDGE.

REFERENCES CITED
The following references are of record in the file of this patent:

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>98,932</td>
<td>Derome</td>
<td>Jan. 18, 1870</td>
</tr>
<tr>
<td>327,076</td>
<td>Farrar</td>
<td>Sept. 29, 1885</td>
</tr>
<tr>
<td>2,313,847</td>
<td>Thomas</td>
<td>Mar. 16, 1943</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>704,678</td>
<td>Germany</td>
<td>Apr. 4, 1941</td>
</tr>
</tbody>
</table>