Dec. 5, 1950 W. R. BROWN 2,532,355

CONVERTIBLE BED, DRESSER AND DAVENPORT

Filed March 27, 1947 3 Sheets-Sheet 1

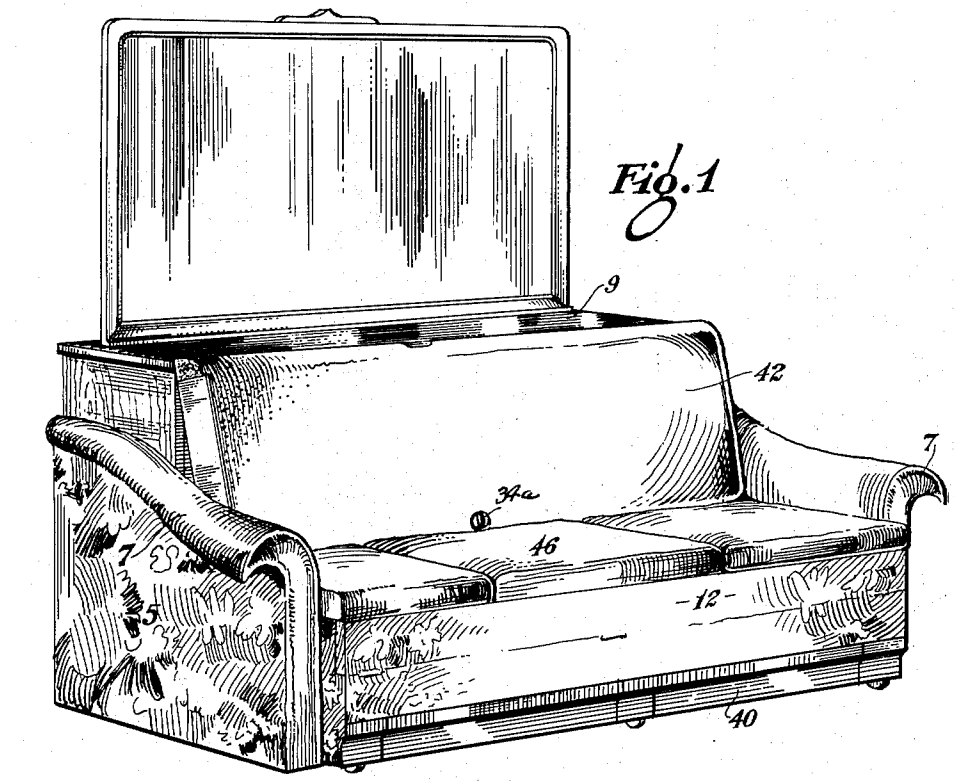


Fig. 1

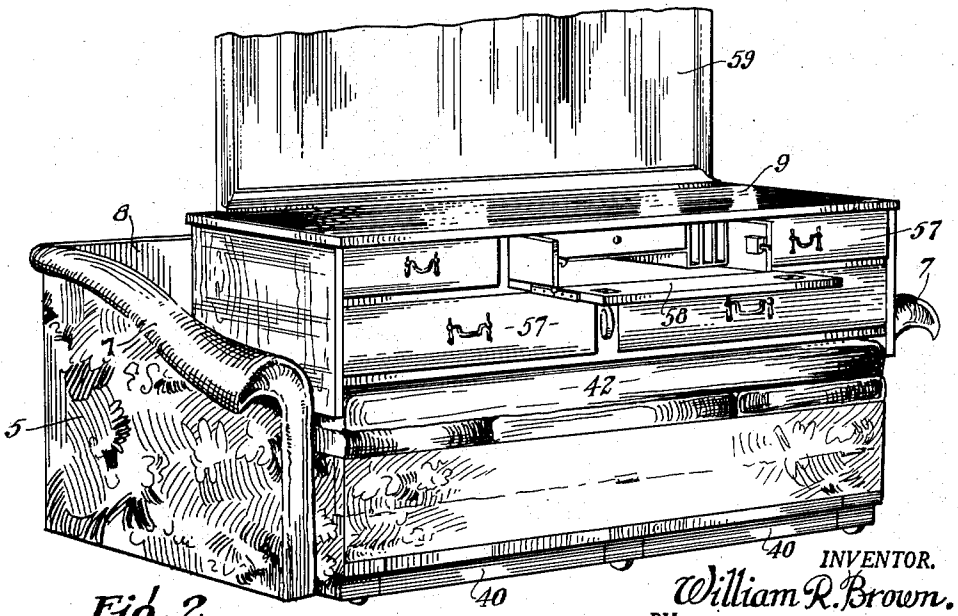


Fig. 2

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Dec. 5, 1950 W. R. BROWN 2,532,355

CONVERTIBLE BED, DRESSER AND DAVENPORT

Filed March 27, 1947 3 Sheets-Sheet 2

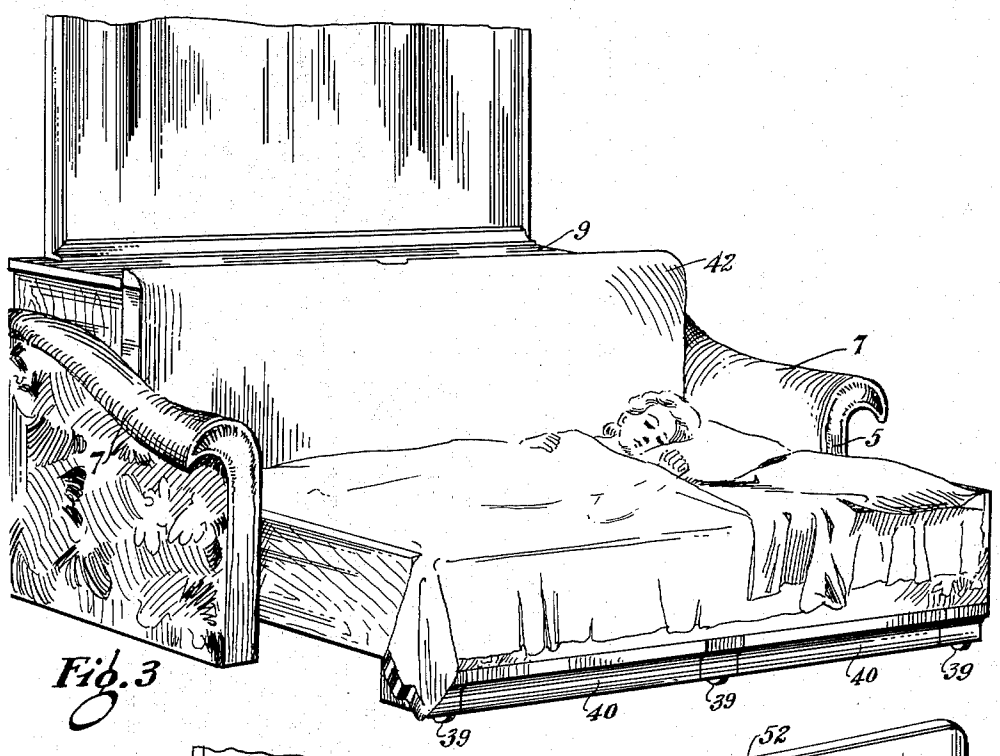


Fig. 3

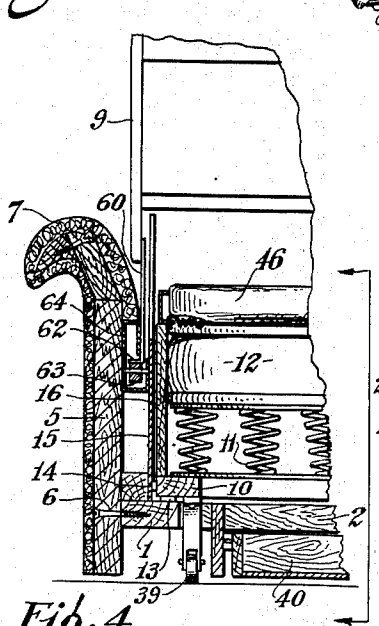


Fig. 4

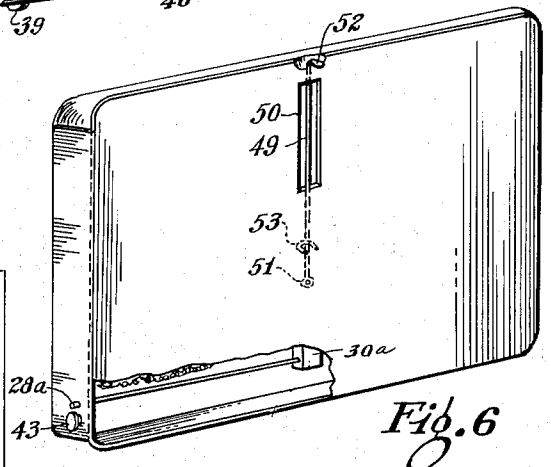


Fig. 6

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Dec. 5, 1950 W. R. BROWN 2,532,355

CONVERTIBLE BED, DRESSER AND DAVENPORT

Filed March 27, 1947 3 Sheets-Sheet 3

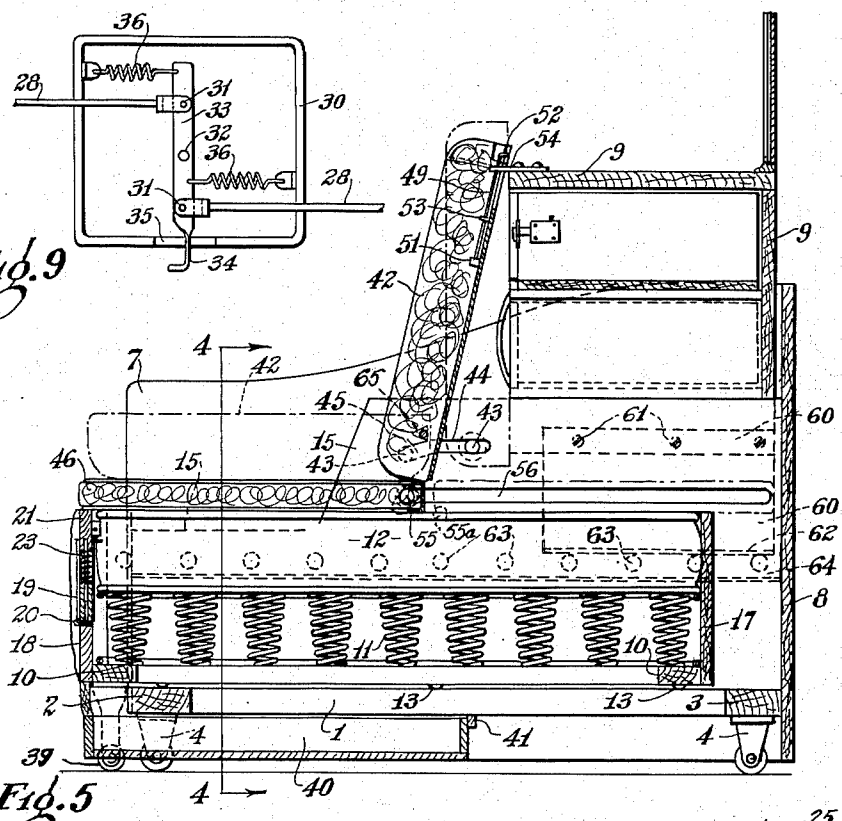


Fig. 9

Fig. 5

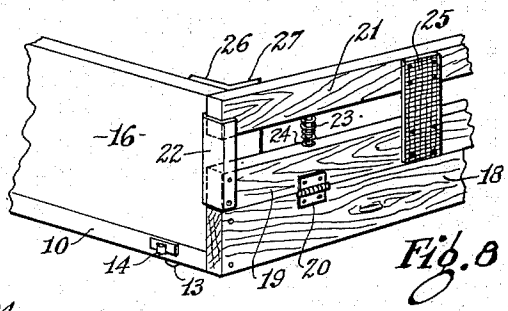


Fig. 8

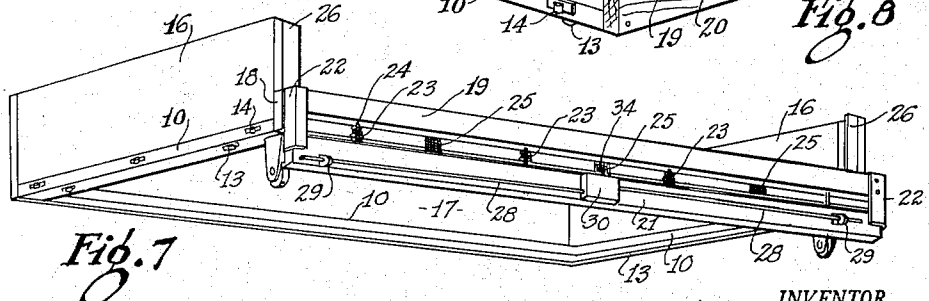


Fig. 7

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2,532,355

UNITED STATES PATENT OFFICE

2,532,355

CONVERTIBLE BED, DRESSER AND DAVENPORT

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Application March 27, 1947, Serial No. 737,461

4 Claims. (Cl. 5—2)

1

My invention relates to furniture, and more particularly to an article of furniture which embodies a construction affording several different types of accommodations within a limited amount of space.

One of the objects of this invention is an article of furniture which is readily convertible for selective use either as a davenport, a bed, or dresser, as may be desired and wherein each converted type of use presents the full facilities thereof to the user.

Another object of the invention is the compact arrangement and construction of the piece making the same extremely desirable for use in hotels apartments, or homes where available space is of a limited nature.

A further object of the invention is an article of furniture combining a davenport, bed, and dresser, table, desk or the like, so constructed and arranged that the same may, by light effort, be converted in use from any one of the uses selected to another of said uses.

A still further object resides in a convertible article of furniture which, when converted as a davenport, not only possesses the appearance of a conventional davenport design, but provides an adequate and independent inclined back rest and seat cushion for the davenport, such members serving also to hide those other structural features not present in a davenport.

Another object of the invention resides in a convertible article of furniture which may be used as a single, double or three-quarter bed, the seat cushion being stored or rolled out of sight within the article of furniture, and the back rest being adjusted to a vertical position still hiding the davenport and dresser unit.

Another object of the invention consists in a convertible article of furniture which, when arranged as a dresser, writing desk, table or the like, according to my invention, requires but simple adjustment to hide the bed and davenport structure, that is, the dresser unit may be made available for use by simply rotating the back rest forwardly and moving the dresser unit forwardly over the seat cushion and back rest of the davenport.

A further object of the invention resides in the provision of an article of furniture convertible on a single or common base or frame to provide davenport, bed, or dresser facilities without the necessity of changing the position of the base or frame.

A still further object of the invention is its adaptability in supplying many important services easily and quickly. While ordinarily during the day it has the appearance of, and serves as a davenport, it can easily and quickly be converted into a bed or changed into a dresser and, while ordinarily during the night it is made to appear as and serve as a bed, it can easily and quickly be changed to serve as a dresser or restored to the appearance of and use as a davenport.

2

Another object of the invention is the large number of good features combined in a single compact article of furniture, including its simplicity of design, its modern and good appearance when in any of its service positions, its ease of operation and the rapidity with which it can be changed from the facility of one service to the facility of another service, its sturdy construction and special features enabling it to retain its good appearance with long and constant usage, its ability to furnish so many important basic and constantly needed services and yet be made available at comparatively low costs considering the number of services furnished and accommodations afforded.

Other objects and advantages of this invention will become more apparent as the following description of one embodiment thereof progresses, reference being made to the accompanying drawings in which like reference characters are employed to designate like parts throughout the same.

In the drawings:

Figure 1 is a perspective view of an embodiment of my invention shown in use as a davenport;

Figure 2 is a perspective view of the same as converted into a dresser, writing desk, table, or the like;

Figure 3 is a perspective view of the same shown converted to use as a bed;

Figure 4 is a fragmentary vertical section taken on line 4—4 of Figure 5;

Figure 5 is a vertical transverse section through the apparatus showing the same when used as a davenport, but indicating in broken lines the positions of the back rest when not in use, that is, when the article of furniture is being used as a bed or as a dresser.

Figure 6 is a rear perspective view of the back rest member;

Figure 7 is a perspective view of the bed frame springs and mattress and support as viewed from below;

Figure 8 is an enlarged perspective view of a corner of the spring and mattress frame and support showing the hinged forward resilient

ledge in a position opposed to that shown in Figure 7, and

Figure 9 is an enlarged detail view of a latch releasing mechanism for the hinged ledge shown in Figure 7.

In carrying out my invention according to the embodiment illustrated in the accompanying drawings, I provide a main frame comprising a base including the side rails 1 and the transverse forward and rear rails 2 and 3, respectively, rigidly secured together in rectangular form. The frame carries a plurality of casters 4 which support the same on the floor. Side members 5 which are preferably upholstered are secured to the side rails 1 of the frame as at 6 and terminate in their upward region in arm rests 7, there being a rear wall 8 connecting the rear ends of the side members 5 and also secured to the rear cross rails 3 of the frame. The rear wall 8 may extend upwardly above the forward level of the arm rests 7 to form an abutment or stop for the dresser unit 9 as will become more apparent hereinafter.

Slidably supported on the main frame 1 is a spring and mattress frame 10 comprising side and transverse members for supporting the springs 11 and mattresses 12 there above. The frame 10 carries on its under side a plurality of rollers 13 as well as the rollers 14 carried along its outer side walls. The rollers 13 support this frame on the frame 1 while the rollers 14 engage a plate 15 on each side of the main frame so that the mattress and spring frame 10 may be rolled easily either forwardly or rearwardly on the main support 1. During such movement the rollers 14 will prevent lateral movement and binding or frictional resistance of the spring and mattress unit as it is being moved outwardly of the main body or as it is moved inwardly thereof.

Vertical side and rear walls 16 and 17 respectively are secured on the spring and mattress frame and enclose the springs and mattresses 12 on three sides as illustrated in Figure 7. The front wall of the mattress frame includes a rail 18 supported on or secured to the base 10 and a gate 19 hinged at a plurality of points 20 to the rail 18. As shown in Figures 7 and 8, the gate 19 comprises the substantially parallel, relatively movable rails 19 and 21, there being end guide channels 22 secured to the rail 19 and arranged to slidably receive the ends of the rail 21. The rails 19 and 21 are normally urged apart by the compression springs 23 carried on the pins 24 secured in one of the rails 19 or 21 and operating in aligned openings in the other of said rails. In order to limit the upward movement on rail 21, I provide a plurality of flexible straps 25 of leather or fabric secured at their ends to the respective rails 19 or 21. By such means, when the gate 19 is up as in Figure 8, the cushioning effect of the mattress along its forward edge is not impaired under load, that is, the load of a person sitting on the forward edge of the cushion of the davenport and thereby depressing the same will at the same time depress the rail 21 against the compression of the springs 23.

In order that the gate may be held in closed position or moved to the position shown in Figure 7 about a horizontal axis, I have provided means for releasably latching the same in the mattress frame. Suitable angle irons 26 are secured to the side members 16 as shown. The forward flanges 27 thereof lying against the inner surface of the rail 21 when the gate is up and affording a rigid wall behind which the free ends of the latch rods 28 may be engaged. The latch rods operate axially through the lugs 29 and through the latch box 30 which is illustrated in detail in Figure 9. The inner ends of the latch rods 28 are pivotally carried at 31 on opposite sides of the fulcrum 32 of the lever 33, the latch lever 33 terminates outwardly of the box 30 in a grip 34 there being a slot 35 in the box to permit the lever 33 to be swung in either direction. Springs 36 anchored at one end to a wall of the box 30 are connected at their opposite ends to the lever 33 at points on opposite sides of its fulcrum 32 tending to thereby normally position the lever 33 as shown in Figure 9 and to hold rods 28 in an outwardly extended position.

In such position of the lever, the rods 28 are projected so that their free ends are latched behind the flanges 27 of the angle irons 26 when the gate is up to hold the gate 19 in the position shown in Figure 8. When it is desired to release the gate so that it may be swung to the position shown in Figure 7, the grip 34 of the latch is moved to the left in Figure 9, thereby retracting the latch rods 28 until their ends are free of the flanges 27 thus permitting the gate to be dropped to its lowermost position.

From the above it will be seen that the mattress frame including the springs 11 and the mattress 12 may be moved as a unit outwardly or inwardly of the main frame 1. When moved outwardly to the position shown in Figure 3, the article of furniture constitutes a bed which may be of double or three-quarter size depending partly upon the distance the bed frame is moved outwardly of the main frame 1. It is to be noted that the mattress frame carries a plurality of floor engaging castors 39 supporting the frame 10 along its foorward rail. It is desirable that one of these castors 39 be positioned on each end of the rail and that one be provided intermediate the ends as illustrated in Figure 3 so that the whole frame will have support when the frame is extended.

Storage space beneath the mattress frame and the main frame may be provided in the form of one or more drawers 40 which are slidable forwardly on suitable runner strips, there being a back stop provided at 41 to limit the rearward motion of the drawers.

A back rest 42 comprising a frame carrying a cushion is slidably and pivotally carried in the upright side members 15 of the main body by means of rollers mounted on headed shafts 43 operating in the slots 44 in each of the end plates 15. It will be noted that the forward end of the slot 44 is inclined downwardly as at 45 so that when the back rest is in the full line position as shown in Figure 5, that is, inclined slightly from the vertical, its bottom wall will normally lie close to or in contact with the seat pad 46, and will be retained in this position and against backward movement under load by the engagement of the ends of the rods 28a in the openings or notches 65 in the plates 15. As the back rest is moved rearwardly to vertical position and the rollers travel up the inclined slots 45, the back rest is raised out of contact with the pad 46. The top of the back rest will rest against the forward portion of the dresser 9 and may be latched in place in this position by suitable means which will be described presently. When the back rest is in the full line position, it will be noted that additional storage space is provided behind the back rest and in front of the dresser section 9. This may be utilized for storing pillows, small cushions or other articles when the article of fur-

niture is in daytime use such as a davenport as is illustrated in Figure 1.

The latching means for retaining the upper portion of the back rest against the dresser 9 and at the same time permitting a substantially vertical sliding movement of the back rest when the same is shifted from its full line position in Figure 5 to its vertical position as indicated by the broken lines therein comprises a rod or resilient wire 49 supported in the back wall of the back rest and lying adjacent a vertically elongated opening 50 therein. The rod or wire 49 is anchored at 51 and 53 and at its opposite end is formed into a grip 52. At this end of the rod there is a slot or opening in the back rest through which the end of the rod passes for limiting its lateral motion. A hook 54 is carried by the dresser 9 and projects into the opening 50 of the back rest and is adapted to engage and overlie the resilient rod or wire 49. When it is desired to release the top of the back rest from the hook 54, the operator merely grasps the grip 52 and shifts the wire to one side to release its engagement from the hook. The back rest may then be rotated in a counter-clockwise direction as in Figure 5 to its substantially horizontal position as indicated by the broken lines in this figure.

I have provided means whereby the back rest 42 may be releasably held at the lower or bed surface side thereof in its inclined full line position in Figure 5, such means being substantially confined within the back rest as illustrated in Figure 6 and constituting a pair of latch rods 28a extending from a latch release mechanism similar to that shown in Figure 9 and indicated generally at 30a in Figure 6, the rods projecting at their outer ends through the back rest side plates to engage a recess 65 in the side plates 15 of the main body. By gripping the hand grip 34a located in the front portion of the back rest, and shifting the same in a clockwise direction as in Figure 9, the rods 28a may be withdrawn from the recesses 65, and the back rest 42 may then be moved rearwardly at its lower side to cause the pins 43 to ride up the inclined slot 44 and rearwardly thereof to the vertical position of the back rest as indicated by the broken lines in Figure 5. Suitable stop nuts (not shown) may be carried near the ends of the rods 28a to limit the outward movement of the rods. It is to be noted that it is not necessary to release the latch 49 from the hook 54 in order to shift the back rest to its true vertical position inasmuch as the upward and rearward movement of the back rest will be translated through the rod 49 and the hook 54 without disengaging the same. When the back rest 42 is in this vertical position, the davenport cushion 46 may be shifted to its rearward position as explained above without any binding action due to contact between it and the bottom of the back rest preparatory to arranging the entire device as a bed as in Figure 3.

When the article of furniture is to be used as a davenport there is provided the davenport cushion 46 which normally overlies the mattress 12 as shown in Figure 5. The cushion 46 is provided at its rear portion with headed pins 55 extending beyond the respective sides of the cushion and projecting into and holding rollers which operate in the elongated slots 56 formed in the side plates 15. The forward end of the slots 56 extends downwardly so that when the cushion 46 is in the position shown in Figure 5 it will lie flat upon the mattress 12, but when it

is desired to remove the cushion 46 from this position to a rearward position within the frame 1, the pins 55 will travel up the inclined slot and thence rearwardly along the slots 56 so that the cushion 46 will be free to slide rearwardly within the frame 1 where it can be stored out of sight when the article of furniture is to be used as a bed. When the cushion 46 is in its rearward position as explained above and held out of frictional contact with the mattress 12, by the pins 55 and roller 55a, the mattress frame 10 and the mattress may be moved forwardly and independently of the cushion 46 to the position shown in Figure 3 so that the piece may be used as a bed.

The dresser unit 9 consists of top, side and rear walls there being provision made for suitable drawers 57 and, if desired, a writing desk section 58. A mirror 59 may be supported on the top of the dresser 9 to move with the dresser unit or supported on the rear wall 8 of the unit, or it may be suspended on a wall of the room directly behind the dresser.

The dresser 9 is movably supported in the article of furniture by means of side bearing plates 60 which are secured at 61 to the depending side walls of the unit 9 and which are formed along their lower edge with a bearing flange 62 for supporting the unit 9 on a plurality of rollers 63 rotatably mounted in a channel 64, one of which is secured to each of the main body side members 5 as illustrated more particularly in Figure 4.

The bearing rollers 63 are provided at intervals within the channel 64 from the rear wall 8 of the main frame to the forward end thereof as illustrated in Figure 5 so that as the dresser unit 9 is brought forwardly to the position shown in Figure 2, the flange 62 of each of the side plates 60 will have bearing contact with a plurality of these rollers at all times during its travel to its forward position.

In operation, the article of furniture may be used as a davenport as shown in Figure 1, as a dresser as shown in Figure 2 or as a bed of either single, double or three-quarter width as shown in Figure 3.

Assuming that the device is arranged as in Figure 1 and it is desired to utilize the same as a dresser as shown in Figure 2, it is merely necessary for the user to release the rod 52 from the hook 54 disconnecting the upper side of the back rest 42 from the dresser unit 9, whereupon the back rest may be rotated about the pins 43 in the forward part of the slot 44 to a horizontal position as shown by the broken lines in Figure 5. The dresser unit 9 may then be pulled to its forward position as indicated in Figure 2, the flange 62 of the plates 60 sliding over the rollers 63 upon which the entire dresser unit is supported.

To use the apparatus as a bed, the dresser unit 9, if in its forward position, may be returned to its rearward position and the back rest 42 is brought to its vertical position as in Figure 5 by releasing the rods 28a from the openings or depressions 65 to permit the back rest to assume this vertical position, the pins 43 sliding up the inclined forward end of the slot 44 and back to the position shown in Figure 5. The next step is to move the davenport cushion 46 along the slot 56 to its rear position below the dresser 9. With the cushion 46 free of the mattress 12, the entire mattress unit comprising the frame 10 and the mattress 12 may be pulled forwardly to the position shown in Figure 3 whereupon the

apparatus may now be used as a bed, it being noted that the necessary sheets and other bedding material may be in place so that when the bed is pulled forwardly it will be ready for use, although the bed pillows may have been first taken from the space between the dresser 9 and the inclined back rest where they are stored when the bed is not in use.

By means of my invention, I have provided in one compact article of furniture several facilities, any one of which may be at the user's disposal without the necessity of moving heavy furniture units requiring considerable effort and without changing the position of the main frame of the apparatus. The invention further conserves useful space in such places as hotel rooms or small apartments by making such space available to many facilities which could not be obtained by other means.

Various changes may be made in the details of construction and arrangement of parts without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. An article of furniture selectively convertible for use as a bed, dresser and davenport, comprising a main supporting frame having vertically disposed side and rear walls, a spring and mattress carrying bed frame slidably supported by and guided within the main frame permitting rearward and forward movement thereof, channel rails horizontally disposed and carried inwardly of and by said main frame side walls, a plurality of rollers aligned horizontally and carried by and within the channel rails, a dresser unit disposed above and transversely of the bed frame, supporting plate members depending therefrom and having a flanged lower portion movable along said channel rails in engagement with said rollers to slidably support said dresser unit and to permit forward and rearward movement thereof, vertically disposed object carrying side plates attached to the inner surface of the side members of the main frame, extending upwardly of the base of the main frame and inwardly of the said channel rails and separated therefrom sufficiently to permit free movement of said supporting plate members therebetween, such object carrying plates being provided with aligned slots disposed substantially horizontally, a seat cushion slidably supported at its sides by and between said object carrying side plates and adapted for movement rearwardly of said main frame to a position above and free of the bed and also adapted to movement forwardly of said main frame rear wall, a back rest positioned forwardly of and by the dresser unit when said dresser is in its rearward position, outwardly disposed carrying means on each end of said back rest projecting into and slidable in said slots, said back rest being thereby rotatable in said side plates forwardly from a substantially vertical position adjacent said dresser unit to a horizontal position to be supported by the bed at a level sufficiently below the dresser unit to permit the dresser unit to be moved forwardly thereover to its forward position flush with the front of the bed in its rearward position when it is desired to use the article of furniture as a dresser, said back rest being further adapted to movement from its support by the bed to a substantially vertical position after the dresser has been moved thereover to its rearward position, said back rest being supported and releasably held in such position by the dresser and thus permitting the bed to be moved to its forward position when it is desired to use the article of furniture as a bed, and permitting the bed to be returned to its rearward position and the seat cushion to be moved to its forward and lowered position to be supported by the bed when it is desired to use the article of furniture as a davenport.

2. An article of furniture as defined in claim 1 including cooperating means carried by said dresser unit and by said back rest for holding the back rest in a substantially vertical position but releasable to permit said back rest to be moved to a horizontal position.

3. An article of furniture as defined in claim 1 in which said aligned slots include a forward portion angularly disposed with respect to the remainder of said slots, whereby said back rest may be disposed in an inclined position when its carrying means is in the said forward slot portions and whereby said back rest may be supported in a vertical position against said dresser unit and clear of the path of movement of said seat-cushion when said carrying means is in the remaining slot portions.

4. An article of furniture as defined in claim 1 including cooperating means on said side plates and said seat-cushion for raising and guiding said cushion clear of said bed frame in its movement toward the rear wall of said supporting frame.

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