June 20, 1950 B. L. COCKRELL 2,512,416

ARTICLE OF FURNITURE

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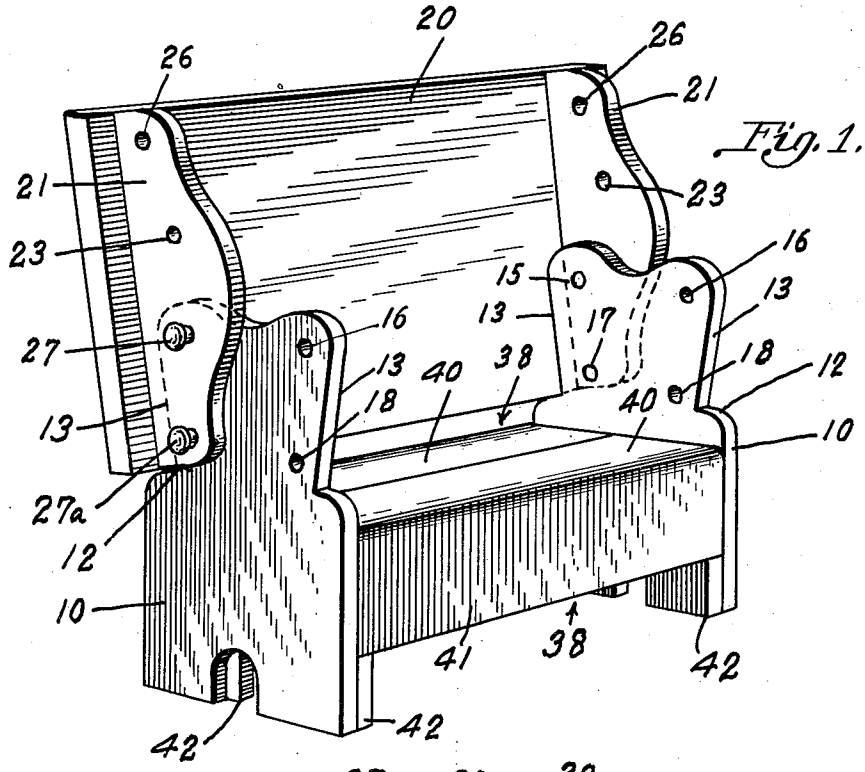


Fig. 1.

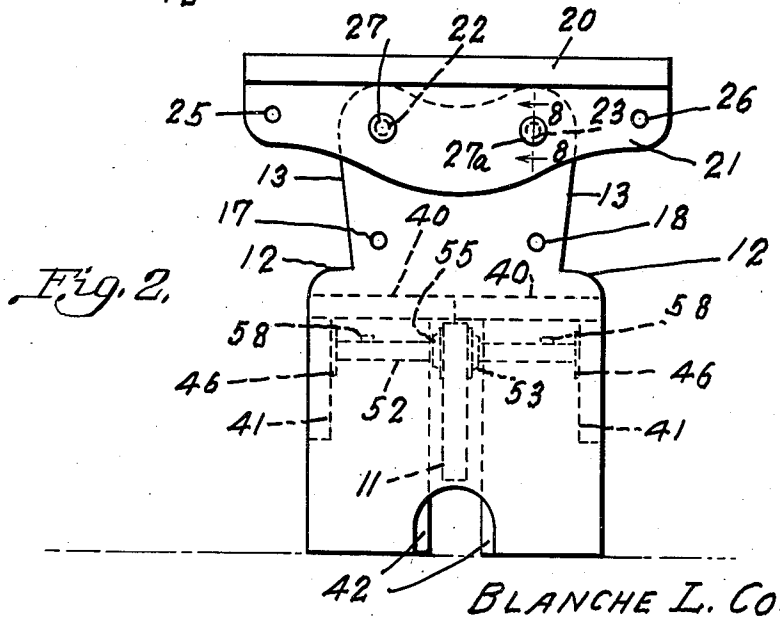


Fig. 2.

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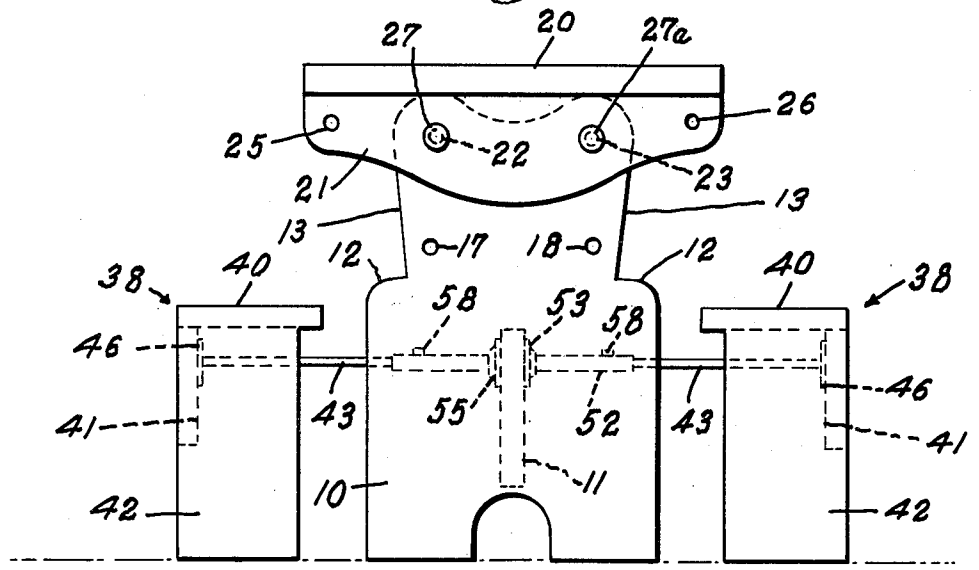
Attorney

June 20, 1950 B. L. COCKRELL 2,512,416

ARTICLE OF FURNITURE

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Fig. 3.



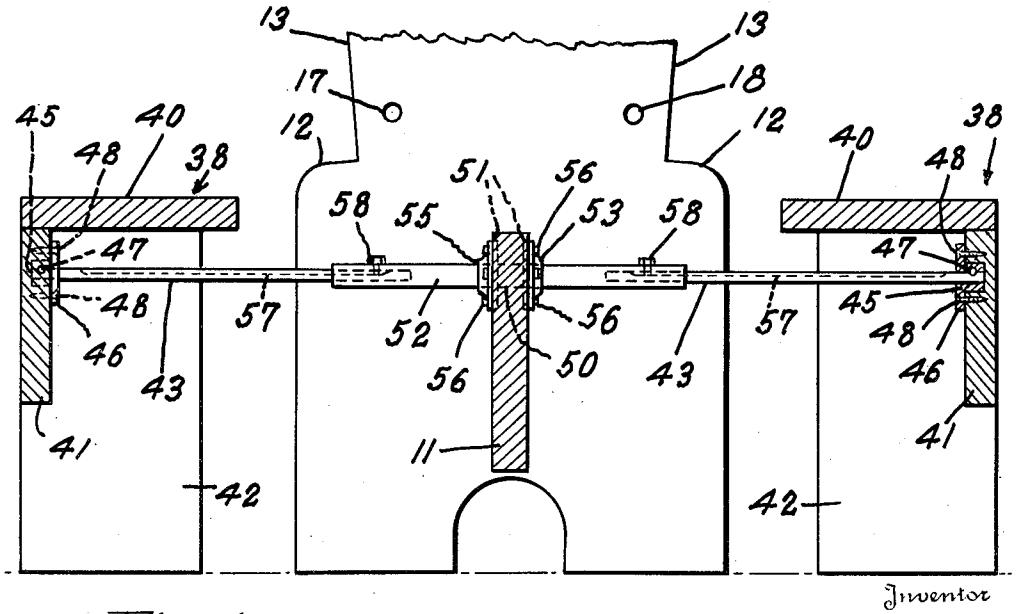


Fig. 4.

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June 20, 1950 B. L. COCKRELL 2,512,416

ARTICLE OF FURNITURE

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Fig. 5.

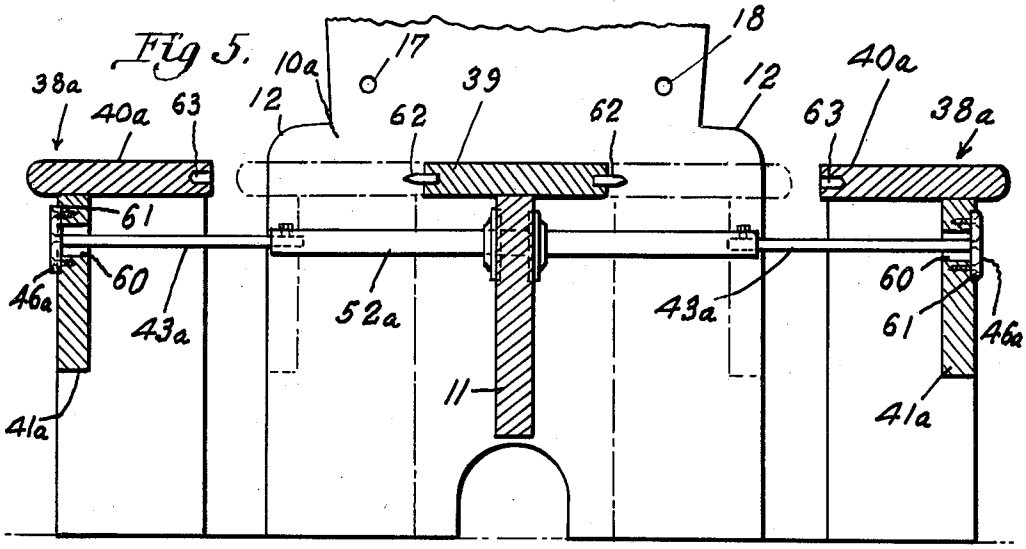
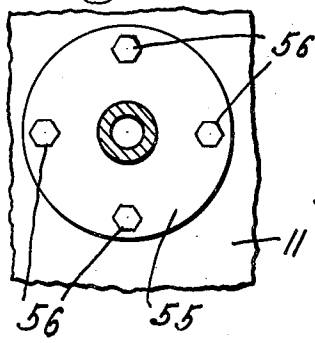


Fig. 7.



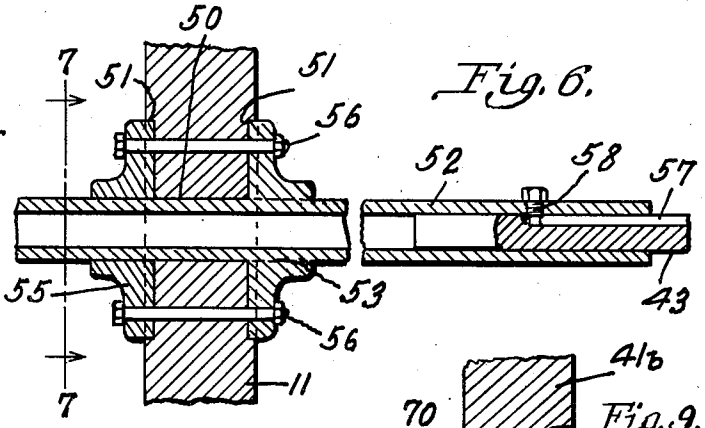
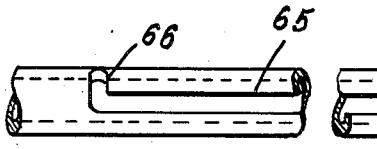
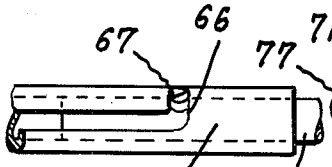


Fig. 6.





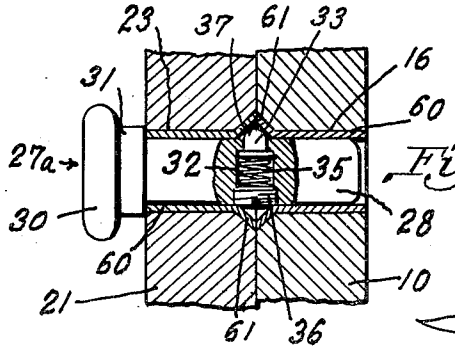


Fig. 8.

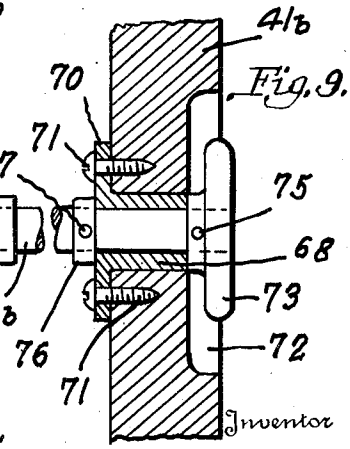


Fig. 9.

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Patented June 20, 1950

2,512,416

UNITED STATES PATENT OFFICE

2,512,416

ARTICLE OF FURNITURE

Blanche Lucille Cockrell, Seat Pleasant, Md.

Application May 14, 1946, Serial No. 669,634

5 Claims. (Cl. 155—43)

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This invention relates to articles of furniture, and more particularly a self-contained composite device which may be conveniently converted into several different articles of furniture.

Heretofore, convertible articles of furniture have been provided, such as exemplified in United States Patent Number 789,364. Such devices, however, employ complicated and objectionable linkage, guides and connecting members. Therefore, it is an object of this invention to provide a relatively simple, composite article of furniture in which the moveable components are secured together in assembled and in operative relation by relatively simple devices.

A specific object of this invention is to provide a composite article of furniture comprising a support for maintaining a member in position to serve as a table top or settee back, and a seat member which serves as a seat for the settee and also as seats or benches for use with a table.

A more specific object of this invention is to provide a composite article of furniture comprising a support for supporting a plate in position to serve as a table top or as a settee back, detachable means for securing the plate to the support, a composite seat having separate components which unite to form a unitary seat for the settee and which components are separable to form separate seats or benches for use with the article when employed as a table, and telescopically-associated members for maintaining the seat components in predetermined relation to each other and to the support.

It is also an object of this invention to provide a convertible article of furniture of generally improved construction, whereby the device will be simple, durable, and inexpensive in construction, as well as conventional, practical, serviceable and efficient in its use.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that various changes in form, proportion and minor details of construction may be made within the scope of the claims without departing from the spirit or sacrificing any advantages of the invention.

For a complete disclosure of the invention, a detailed description thereof will now be given in connection with the accompanying drawings forming a part of the specification, wherein:

Figure 1 is a perspective view of the article of furniture with its components arranged as a settee;

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Figure 2 is an end view of the article of furniture when employed as a table;

Figure 3 is a similar view but depicting the components of the seat as being separated to provide seats or benches for use with the table;

Figure 4 is an enlarged transverse vertical section taken through the lower portion of the device, with the components arranged as depicted in Figure 3;

Figure 5 is a view similar to Figure 4, but depicting a modified form of the invention;

Figure 6 is an enlarged transverse section depicting, in detail, the assembled relation of components of the device;

Figure 7 is a vertical sectional view taken on the line 7—7 of Figure 6;

Figure 8 is a detailed sectional view taken on the line 8—8 of Figure 2; and

Figure 9 is a detailed sectional view, parts appearing in elevation, of a modified form of the invention.

Referring to the drawings, in which similar reference characters designate corresponding parts, there is depicted a composite convertible article of furniture which includes a support having spaced side members or uprights 10 which are united by a transversely-extending reach or cross-brace 11 which is rigidly secured to the side members in any preferred manner. Each upright 10 has its intermediate portion reduced to define laterally spaced shoulders 12, from which laterally inclined edges 13 extend upwardly and outwardly, for a purpose to be hereinafter explained. The upper portion of each upright is provided with spaced horizontally-arranged pivot apertures 15 and 16 and spaced horizontally-arranged lock apertures 17 and 18.

A flat plate or panel 20 is provided, and this plate has spaced members or ribs 21 secured thereto and extending perpendicularly therefrom. Each member 21 is provided with alined pivot apertures 22 and 23, and alined lock apertures 25 and 26, for a reason to be hereinafter set forth.

In order to secure the plate 20 to the uprights 10 of the support, locking or pivot pins 27 and 27a (Figures 1 and 8), are provided. Each pin includes a cylindrical shank 28 and an enlarged thumb piece or head 30 which is spaced from the shank 28 of the pin by an annular member 31. A shouldered and threaded aperture 32 extends transversely through the intermediate portion of each pin shank 28, and this aperture slidably re-

ceives a detent or plunger 33 which is normally urged outwardly against the shoulder of the aperture 32 by a helical extension spring 35, and the spring is retained in the aperture by a screw plug 36.

The outer terminal of the detent 33 normally extends a short distance beyond the peripheral surface of the shank 28 of the pin 27, or 27a and this outwardly extending portion of the detent is preferably rounded, as indicated at 37, as best seen in Figure 8.

A composite seat is provided, and it includes separate seat members or benches 38, and each seat member includes a horizontal seat panel 40 and a perpendicularly-disposed panel or apron 41. The panels 40 and 41 are secured to and supported by spaced legs 42.

Each outer panel 41 has a rod or slide member 43 rigidly secured thereto in perpendicular relation by any suitable means. A preferred means of securing the rod 43 to the panel 41 comprises an anchoring member having a cylindrical portion 45 and a perpendicular flange 46. The cylindrical portion 45 is rigidly secured to the rod 43 by a transversely-extending pin 47, and the flange 46 is secured to the panel by means of screws 48, or other suitable securing means. The cylindrical portion 45 of the anchoring member is preferably received in a cylindrical aperture formed in the outerpanel 41 to thereby accurately locate the rod 43 with relation to the panel 41.

In this form of the invention, the reach 11 is provided with two spaced horizontally-disposed apertures 50 at its intermediate portion, and each aperture 50 is surrounded by shallow concentric recesses 51 which are formed in the opposed faces of the reach 11, as best seen in Figure 6, for a purpose to be hereinafter explained. A pipe or tubular member 52 has its intermediate portion received in each aperture 50, and each tubular member 52 has an annular securing flange 53 suitably secured thereto, to form, in effect, an integral part of the tubular member. A similar annular flange 55 is slidably mounted on the tubular member 52, and these opposed flanges 53 and 55 are suitably clamped to the reach 11 by bolts 56 which extend through alined apertures formed in the flanges and the reach 11, as best seen in Figure 6. In their clamped relation, the inner faces of the flanges 53 and 55 are received in the shallow recesses 51, and a tubular member 52 is received within a recess 50. Inasmuch as the apertures 50 and recesses 51 are arranged in concentric relation, and since these recesses receive the clamping flanges 53 and 55, it is manifest that after the bolts 56 have been sufficiently tightened, the tubular member 52 is rigidly secured to the reach 11 in accurate perpendicular relation, thus ensuring a strong and accurate assembly.

Each rod 43 is slidably or telescopically received within a tubular member 52, so that the seat members 38 may be moved towards and away from the reach 11, as will be more fully explained hereinafter. Each rod 43 is provided with a longitudinally-extended groove 57 (Figures 4 and 6), and each groove receives the inner portion of a stop or limit screw 58 which is threadedly secured to the tubular member 52, as best seen in Figure 6. By this arrangement, the outer movement of the rod 57 relative to the tubular member 52 is limited by the engagement of the inner terminal of the groove 57 with the stop screw 58.

Referring to Figure 8, it will be seen that the

shank 28 of the pin 27a extends through alined apertures 16 and 23 formed in the upper portion of an upright 10 and a rib 21. If soft wood is employed, the apertures are preferably lined by thin cylindrical ferrules 60 having flaring terminal portions 61 received in the flaring inner terminals of the apertures, thereby forming an annular recess when the apertures are in alinement. Inasmuch as the inner terminals of the apertures are laterally enlarged, an annular recess is formed whether or not the metal lining provided. A preferred arrangement is one in which the apertures 15, 16, 22 and 23 are lined, because these are pivot apertures and receive more wear than the lock apertures 17, 18, 25 and 26, although all apertures may be lined if desired.

When the device is employed as a table, as seen in Figure 2, the pins 27 and 27a are inserted in the alined apertures 15, 16, 22 and 23, thereby rigidly securing the plate 20 to the uprights 10, to form a table top. In this use of the device, the seat members 38 are slid inwardly in abutting relation over the reach 11, and in this position, the outer terminals of the seat members 38 coincide with the lateral terminals of the uprights 10, thus providing a compact arrangement leaving space within the lateral confines of the table top.

The table may be readily converted into a settee, as seen in Figure 1, by removing the pins 27a from the alined apertures 16 and 23, and then swinging the plate 20 about the pins 27 until the inner face of the lower portion of the plate engages the selected inclined upper edges 13 of the uprights 10. In this position, the apertures 25 aline with the apertures 17, and then the removed pins 27a are reinserted into these apertures, thus locking the plate in position to form a back for the settee at one side thereof. The plate 20 may be secured, if desired, in back-forming position at the opposite side of the settee by reversing the operation and then inserting the removed pins 27 into the alined lock apertures 26 and 18.

If it is desired to employ the article of furniture as a breakfast or dinette set, or for any use requiring a table and opposed benches, then the plate is positioned to form a table top, as hereinbefore described, and the seat members or benches 38 are pulled outwardly until the stop screws 58 engage the inner terminals of the grooves 57 formed in the rods 43, thereby positioning the benches at the side of the table with the guide rods 43 and tubular members 52 located intermediate the ends of the table to permit free access to the benches from the ends thereof. Inasmuch as each rod 43 always has ample bearing length located telescopically within each tubular member 52, even in the outermost position of the benches, these rods slide freely within the tubular members, thus enabling the benches to be readily moved relative to the support.

After use of the article as a breakfast set, if it is desired to convert the device into a settee, this may be readily done by sliding the bench members, 38, inwardly until they engage each other to form a continuous seat, and then swinging the plate 20 about selected alined pivot pins 27 or 27a, and then locking this plate in its back-form position. If the article of furniture is located in a relatively small kitchen alcove or nook, it may be moved to either side of the nook and employed as a settee without attempting to turn the article of furniture within the limited space of the nook, because as hereinbefore stated, the plate 20 may

be swung to either side of the uprights and there secured to form a back for the settee.

In the form of the invention depicted in Figure 5, only one tubular member 52*a* is employed, and this member has a rod 43*a* telescopically received in each terminal thereof. The outer terminal of each rod 43*a* is secured to an anchor plate or disc 46*a*, and this plate is secured to the outer face of the vertical outer panel 41*a* of each seat member or bench 38*a*. Each outer panel is preferably provided with an aperture 60, to receive the outer terminals of the tubular member 52*a*, and a shallow concentric recess 61 is formed in the outer face of the outer panel 41*a* to receive the anchor plate 46*a*, to ensure that this anchor plate is located to accurately position each rod 43*a* for accurate sliding reception within the tubular member 52*a*.

In this arrangement, an intermediate seat panel 39 extends between the uprights 10*a* and is preferably secured to the upper terminal of the reach 11, thereby combining with the reach 11 to form a T-shaped cross-brace to rigidly support the uprights 10*a*. If desired, the opposed lateral terminals of the intermediate seat panel 39 are provided with projecting and pointed dowels 62 which are adapted to be received within apertures 63 formed in the inner edges of the seat panels 40*a* of the benches 38 when the benches are moved to their inner or seat-forming positions. This ensures that the panels 40*a* accurately aline with the intermediate seat panel 39.

With this arrangement, only one tubular member 52 is required to guide the bench members 38*a* in their movement to and from the reach 11, but ample leg room is provided at the sides of the uprights 10, between these uprights and the benches 38*a*. The remaining components of this device are similar to those hereinbefore described.

If it is desired to lock the benches 38 in their inner and outer positions, the locking arrangement depicted in Figure 9 is employed. In this arrangement, each tubular member 52*b* is secured to the reach 11, in the manner hereinbefore disclosed. Either one or two tubular members may be employed, but in either instance, each tubular member 52*b* is provided with an elongated axially-extending slot 65 having perpendicularly-disposed terminal slots 66. Each rod 43*b* is provided with a projecting lug or screw 67, received within the said slots, for a purpose to be hereinafter set forth. The outer terminal of each rod 43*b* is rotatably received in a sleeve or bushing 68 having a perpendicular flange 70 which is secured to the front panel 41*b* of each bench by screws 71, or other suitable securing devices. A shallow recess 72 is formed in the outer face of the front panel 41*b* to receive a manipulating disc or wheel 73 that is pinned or otherwise secured to the outer terminal of the rod 43*b*, as indicated at 75. In order to prevent the rod 43*b* from moving longitudinally relative to the sleeve 68, a collar 76 is pinned or otherwise secured to the rod, as indicated at 77.

In the use of this locking device, when it is desired to move a bench, thus sliding a rod 43*b* within a tubular member 52*b*, the hand wheel 73 is turned counterclock-wise until the lug 67 alined with the longitudinal slot 65, then the bench may be moved outwardly or inwardly until the lug 67 engages the selected terminal slot 66. Now the wheel is turned clock-wise, thereby moving the lug 67 into the selected slot 66, consequently locking the bench against movement relative to the support.

Having thus described my invention, what I claim as new and useful is:

1. An article of furniture including separate uprights, a reach securing and spacing the uprights, a plate secured to the uprights to form a table top, separate seat members which nest below the table top and which are separably moveable to positions to form spaced benches, a tubular member rigidly secured to the reach, a slide member rigidly secured to each seat member and slidably received within the tubular member whereby the seat components are guided in their movement towards and away from the reach, and means for securing said slide and tubular members rigidly together.

2. An article of furniture including separate uprights, a reach securing and spacing the uprights, a plate secured to the uprights to form a table top, separate seat members which nest below the table top and which are separably moveable to positions to form spaced benches, a tubular member rigidly secured to the reach, a slide member rigidly secured to each seat member and slidably received within the tubular member whereby the seat components are guided in their movement towards and away from the reach, and means for limiting the outward sliding movement of each slide member relative to the tubular member whereby an appreciable portion of each slide member remains within the tubular member at the outermost position of the slide member.

3. An article of furniture including separate uprights, a reach securing and spacing the uprights, a plate secured to the uprights to form a table top, separate seat members which nest below the table top and which are separably moveable to positions to form spaced benches, a tubular member rigidly secured to the reach, a slide member rigidly secured to each seat member and slidably received within the tubular member whereby the seat components are guided in their movement towards and away from the reach, means for limiting the outward sliding movement of each slide member relative to the tubular member whereby an appreciable portion of each slide member remains within the tubular member at the outermost position of the slide member, and conveniently accessible means for manually locking each slide member to the tubular member to maintain the seat members in predetermined relation to each other.

4. An article of furniture including separate uprights, a reach having an aperture formed therein and securing and spacing the uprights, separate seat members which unite between the uprights to form a unitary seat and which are separably moveable to positions to form spaced benches, a tubular member extending through the aperture formed in the reach, a flange secured to the tubular member and adapted to engage one face of the reach, a flange slidable on the tubular member and adapted to engage the opposed face of the reach, securing members binding the flanges rigidly to the reach whereby the tubular member is firmly secured to the reach and extended perpendicularly from each face thereof, and a slide member rigidly secured to each seat member and slidably received within the tubular member whereby the seat components are guided in their movement towards and away from the reach.

5. An article of furniture including separate uprights, a reach securing and spacing the uprights, the reach having an aperture formed therein and extending transversely therethrough

and shallow recesses formed in each face thereof in concentric relation with the aperture, separate seat members which unite between the uprights to form a unitary seat and which are separably moveable to positions to form spaced benches, a tubular member extending through the aperture, a flange secured to the tubular member and partially received in one of the recesses, a flange slidable on the tubular member and partially received within the opposed recess, and securing members extending through the reach and rigidly binding the flanges within the recesses whereby the tubular member is firmly secured to the reach and extends perpendicularly from each face thereof, and a slide member rigidly secured to each seat member and slidably received within the tubular member whereby the seat members are guided in their movement towards and away from the reach.

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