F. P. ANDERSON.

COMBINED PARLOR BED AND CHAIR.

APPLICATION FILED MAY 24, 1909.

978,533.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 1.

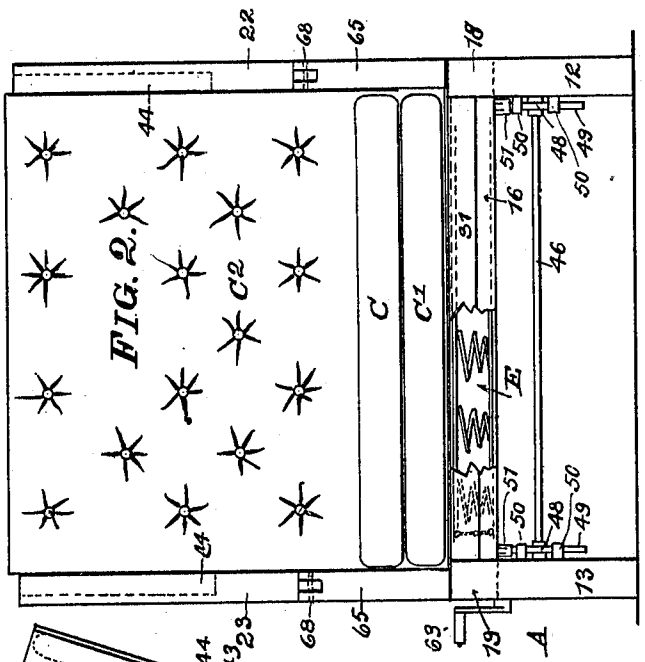

FIG. 2.

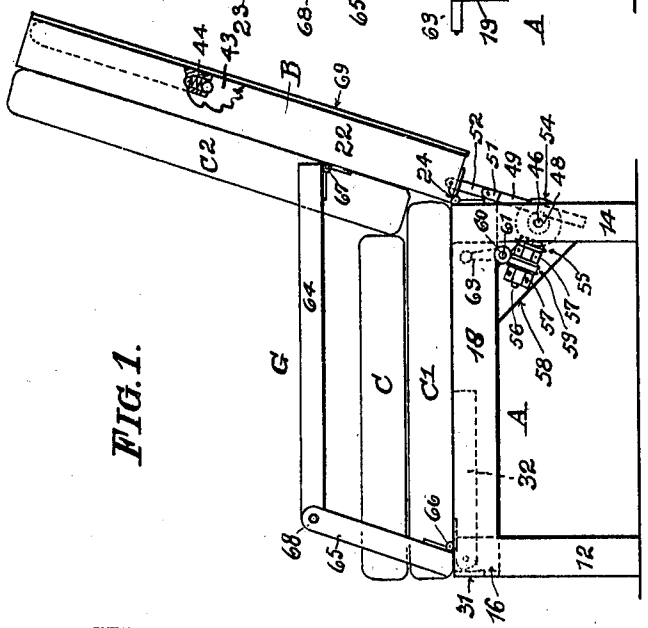

FIG. 1.

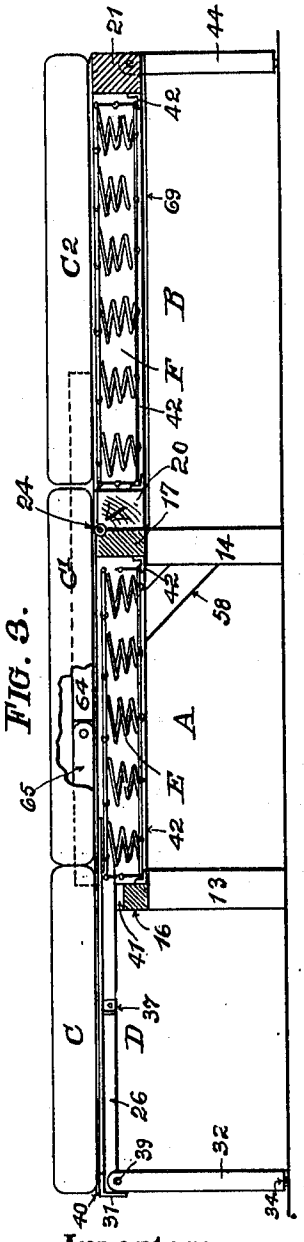

FIG. 3.

Witnesses:

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2 SHEETS—SHEET 2.

FIG. 8.

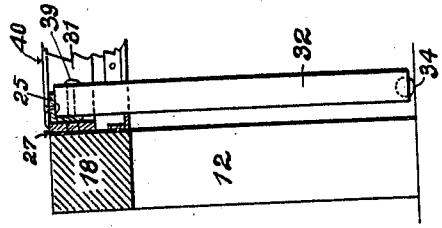


FIG. 7.

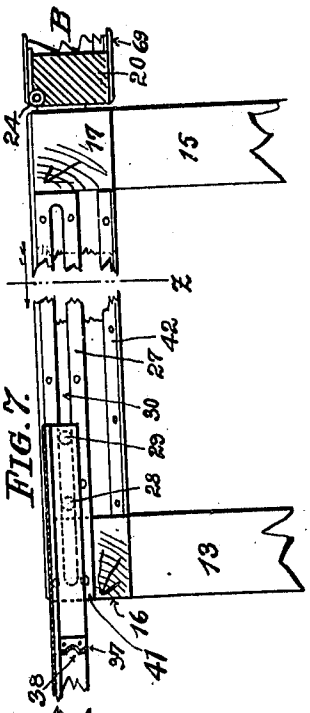


FIG. 4.

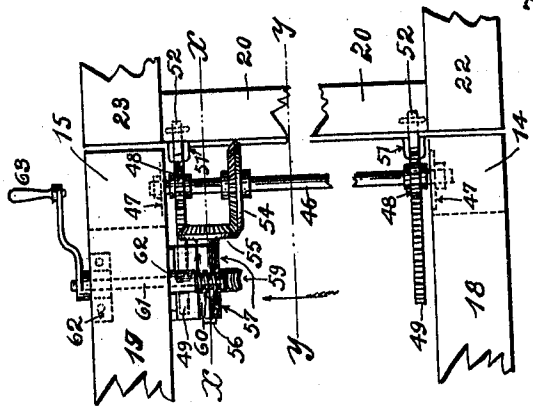


FIG. 6.

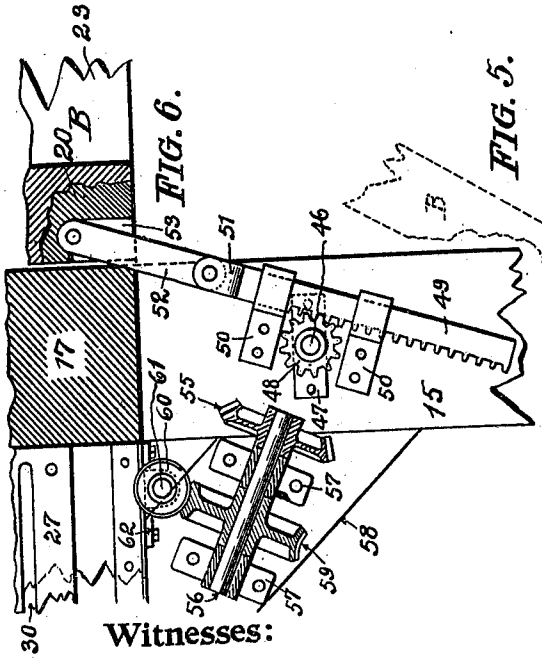
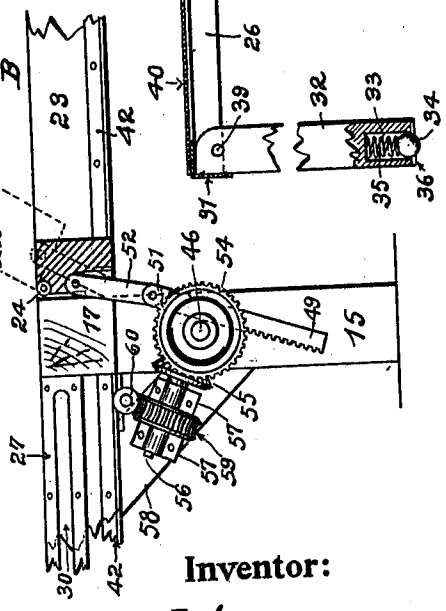


FIG. 5.



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UNITED STATES PATENT OFFICE.

FRANK PAUL ANDERSON, OF CHICAGO, ILLINOIS.

COMBINED PARLOR BED AND CHAIR.

978,533. Specification of Letters Patent. Patented Dec. 13, 1910.

Application filed May 24, 1909. Serial No. 497,917.

To all whom it may concern:

Be it known that I, FRANK PAUL ANDERSON, a former subject of the Empire of Germany, who has declared his intention to become a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Parlor Beds and Chairs; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to a combined parlor chair and bed; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claim.

The object of this invention is the production of an efficient, serviceable and convenient combined chair and bed which can be readily converted from a chair into a bed or vice versa. To accomplish this result I construct this combined chair and bed as shown in the drawings already mentioned, in which—

Figure 1 is a side-elevation of my improved device, illustrating the same as a reclinable chair. Fig. 2 is a front-elevation of the same, the specific details of construction of the reclining mechanism being omitted, same being shown on an increased scale in Figs. 4 to 8. Fig. 3 is a longitudinal sectional elevation of the device depicting the same as a bed. Fig. 4 is a plan of a fragment of the device illustrating the mechanism for reclining the back of the chair. Fig. 5 is a longitudinal sectional elevation of the same on line *y y* of Fig. 4. Fig. 6 is a similar view, on an increased scale, drawn on line *x x* of Fig. 4. Fig. 7 is a similar view of a portion of the chair illustrating the extension-means thereof, the back-reclining mechanism being omitted. Fig. 8 is a vertical section of a portion of the chair, on line *z z* of Fig. 7.

Like parts are designated by corresponding symbols and characters of reference in all the figures.

A in these drawings designates the chair, and B the reclinable back thereof.

C, C^1, and C^2, are the cushions to all of which more particular reference will hereinafter be had.

The chair proper comprises four legs, 12, 13, 14 and 15 respectively which are secured to, and form supporting-members for, a seat frame consisting of a front-rail 16, a back rail 17, and two side-rails 18 and 19 respectively, the legs being attached to the seat frame in any desired manner.

The back B comprises a rectangular frame consisting of two end-rails 20 and 21 respectively, and two side-rails 22 and 23, this frame being hinged to the chair-seat by hinges 24, in such a manner that this chair-back can be turned down into a horizontal position as shown in Figs. 3, 4, 5 and 6.

The parts thus far described may be of any desired style, shape or configuration, the drawings illustrating what is commercially termed "mission style" of furniture.

D designates an extension for the chair-seat, it being shown in detail in Figs. 3 and 7. This extension comprises a U-shaped frame made preferably of angle iron, its two parallel members 25 and 26 being a distance apart nearly equal to the space between the side-rails 18 and 19. On the inner opposite sides of these side-rails there are secured slotted bars, 27; and on the parallel members 25 and 26 there are outwardly projecting studs 28 and 29, Fig. 7, which engage the slots 30 in said bars 27 and prevent the extension D from being entirely pulled away from the chair-seat. At the angles where the parallel members 25 and 26 join the front, or connecting, members 31 of the extension there are pivoted two supporting legs 32, which sustain the extension of the chair-seat in its extended position. These legs have at their lower ends a bore 33, within which is located a ball 34, and behind this ball there is a spiral spring 35, a plate 36, being secured to the lower end of said legs to prevent the ball from escaping from said bore 33, the ball however, projecting from said plate 36 a part of its periphery. On the inner sides of the parallel members 25 and 26 there is provided a plate 37, having a depression 38, adapted to engage the protruding portion of the ball 34, said plate 37 being located a sufficient distance back of the pivot 39 of the leg 32 to serve as a catch to hold said leg in a folded-up position, parallel with the parallel members 25 and 26. The extension D is covered on its upper surface with a textile covering 40, being canvas,

cloth, or other suitable material securely fastened to the members comprising said extension D.

The forward seat-rail 16 is narrower than the rear-rail 18 to afford a space 41, which space is closed by the connecting-member 31 of the extension frame when the latter is pushed upon the seat-frame. Within the spaces bounded by the seat-rails there is removably located a, preferably metallic, spring-mattress, E, and within the back-frame there is located a similar mattress F, of any desired and approved sanitary construction, said mattresses being supported upon angle-bars, 42, as clearly shown in Fig. 3.

In the inner opposing sides of the back-members 21 there are formed recesses 43, wherein are pivoted two supporting legs 44, which sustain the back B in a horizontal position when the furniture is being used as a bed, said legs 44 having spring-catches, the same as the legs for the extension, to retain them in a folded-up position when not in use. The back B is moved upon its hinges 24 by a mechanism comprising a transverse shaft 46, having its bearings 47, in the supporting rear members 14 and 15, there being upon said shaft 46 two gear-pinions 48 engaging racks 49, which racks slide in bearings 50 as clearly illustrated in Fig. 6. The upper end of these racks is formed into a double eye 51, wherein is pivoted a link, 52, with one end, the other end of said links being pivoted within recesses 53 in the lower back-member 20. Upon the shaft 46 there is further secured a bevel-gear wheel 54, which meshes with a similar bevel-gear wheel 55, located upon a shaft 56, having its bearings in brackets 57, secured to a diagonal brace-member 58, connecting the rear-legs with the side-members of the seat-frame. Upon this shaft 56 there is also secured a worm-wheel 59, which is engaged by a worm 60 mounted on a shaft 61, revolving in bearings 62, secured to the under side of the member 19 of the seat-frame, said shaft 61 passing underneath said member 19 and protruding therefrom sufficiently to receive a crank 63, by means of which said shaft 61 and the mechanism connected therewith, may be conveniently rotated.

G are the arm-rests. They are constructed each of a top-member 64, and a supporting member 65, the supporting member being hinged to the seat-frame by hinges 66, and the top-members to the back-frame by hinges 67, the top, and the supporting members being jointed together at 68.

It will now be observed that when the parts described are all in their normal positions, as shown in Figs. 1 and 2, the furniture serves the purpose of a chair having a reclinable back, the back being reclined by turning the crank 63 in the proper direction, and held in any desired position by the worm and worm-wheel described. When it is desired to convert this chair into a bed, the extension D is pulled out, and its supporting legs swung into a vertical position, the stops 28 and 29 preventing it from being entirely withdrawn from the chair. Now the back-supporting members 44 are swung outwardly and the back lowered into a horizontal position, the cushion C^2 of the back, and the seat-cushion C^1 remaining in their respective positions, while the cushion C, which normally is placed upon the seat-cushion, is removed therefrom and placed upon the extension D, thereby providing the bed with a complete upholstered mattress. When the back is being lowered, the arm-rests follow the back and when the latter is in its horizontal position, the members of the arm-rests are turned down and rest upon the seat-frame, as illustrated in Fig. 3 and thereby serve as guards to the seat, and back-cushions to prevent their lateral displacement from the bed. In order to properly finish the back of the chair I shall cover the same with either a solid wooden backing 69, or a suitable canvas, or cloth covering.

Having thus fully described this invention, I claim as new, and desire to secure to me by Letters Patent of the United States—

In furniture, a combined chair and bed, including a seat-frame; supports for said seat-frame; a back hinged to said seat-frame, and means for swinging said back from a vertical to a horizontal position and sustaining said back in any intermediate position, said means comprising a shaft below said seat-frame pinions on said shaft, rack bars adapted for engagement by said pinions, links on said racks and connected therewith and with said back, a bevel-wheel upon said shaft, a bevel-pinion meshing with said first-mentioned bevel-wheel, a shaft upon which the bevel-pinion is mounted, a worm-wheel upon the latter shaft, a worm engaging said worm-wheel, a shaft upon which said worm-wheel is mounted, a crank at the outer end of said last-mentioned shaft and bearings for the several shafts, and the rack-bars.

In testimony that I claim the foregoing as my invention, I have hereunto set my hand in the presence of two subscribing witnesses.

F. PAUL ANDERSON.

Attest:
MICHAEL J. STARK,
A. G. PETERSON.