

(No Model.)

4 Sheets—Sheet 1.

C. N. WONSON & D. W. PALMER.
CONVERTIBLE CHAIR.

No. 520,284.

Patented May 22, 1894.

Fig. 1.

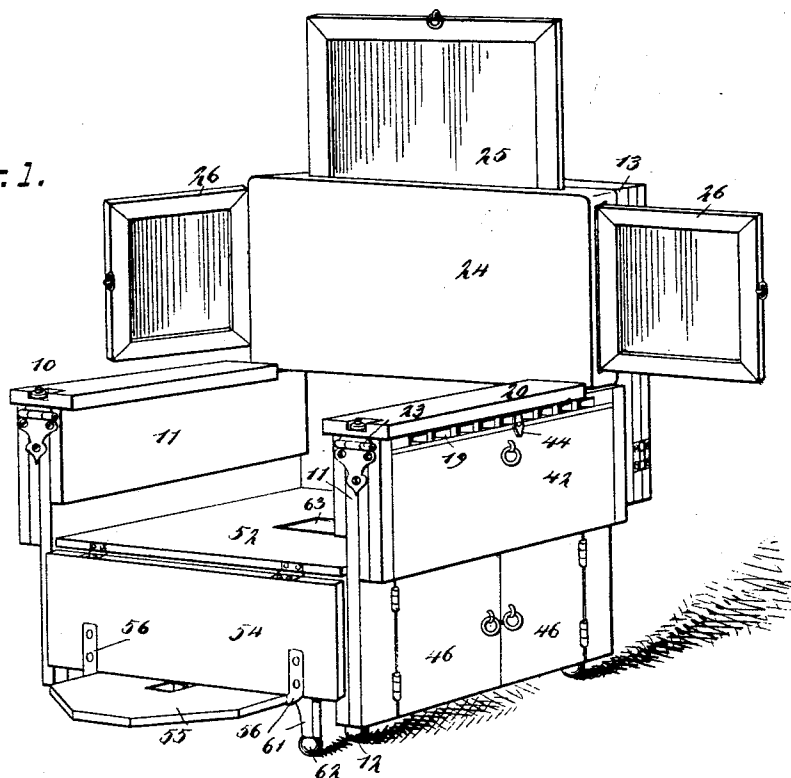
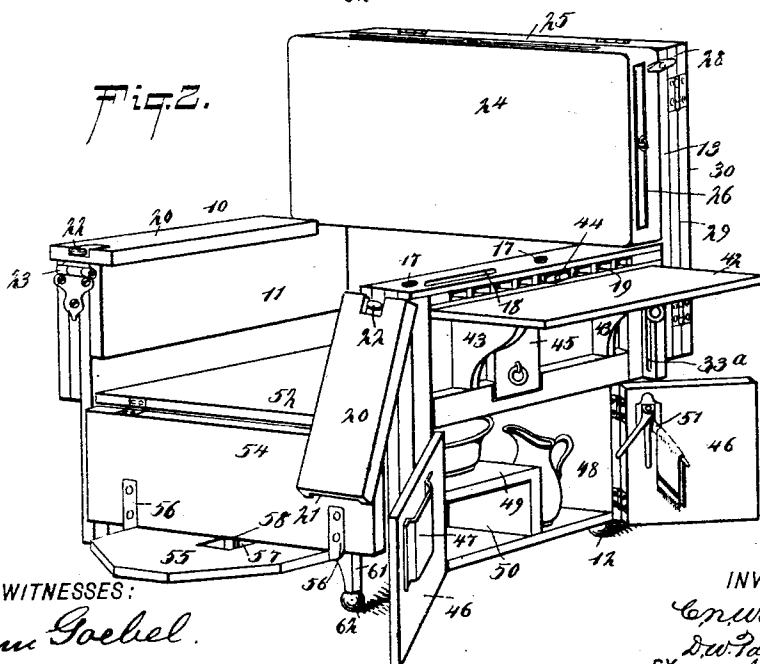


Fig. 2.



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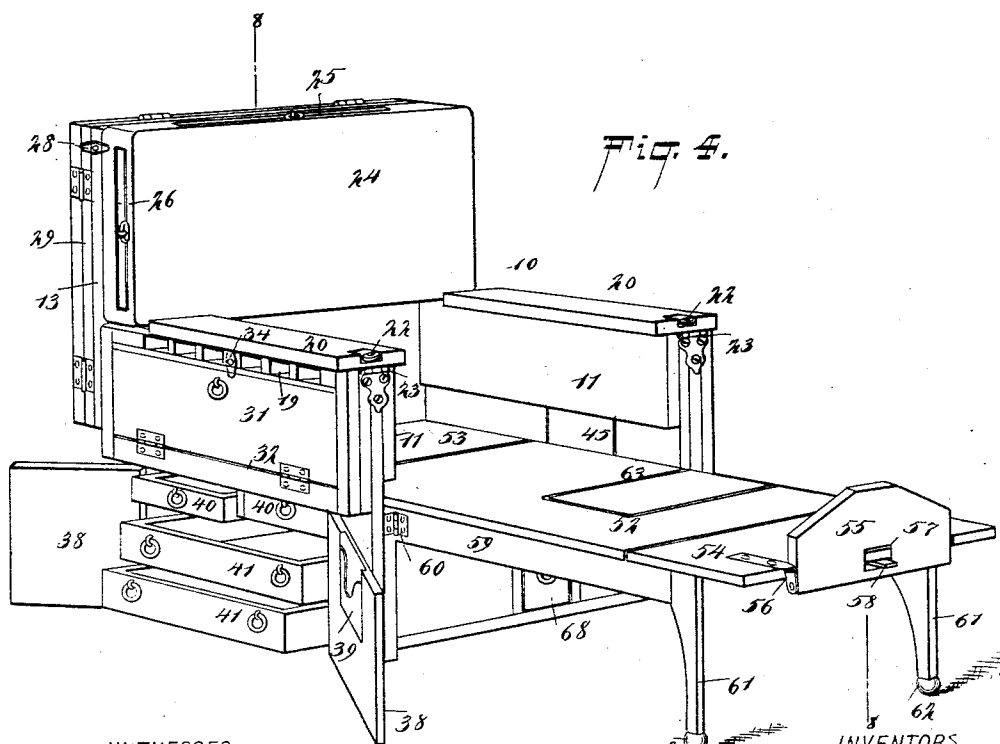
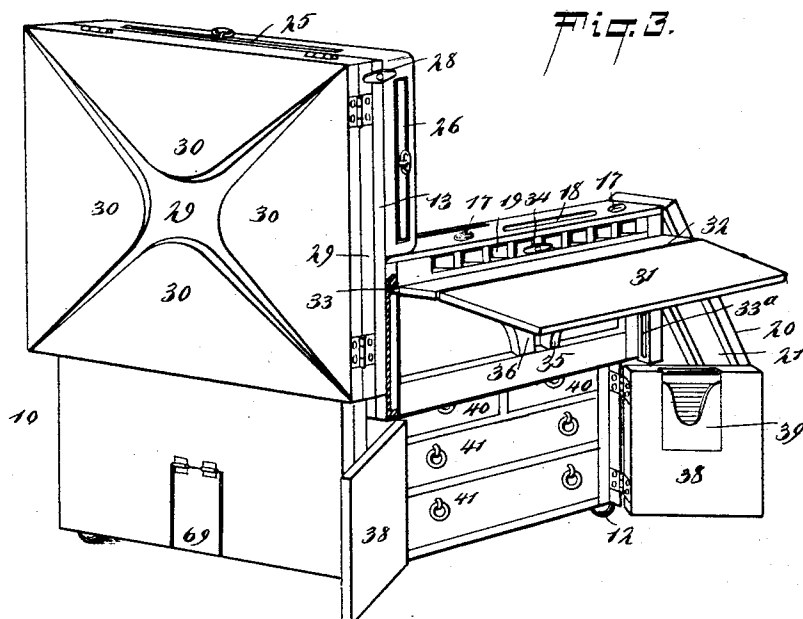
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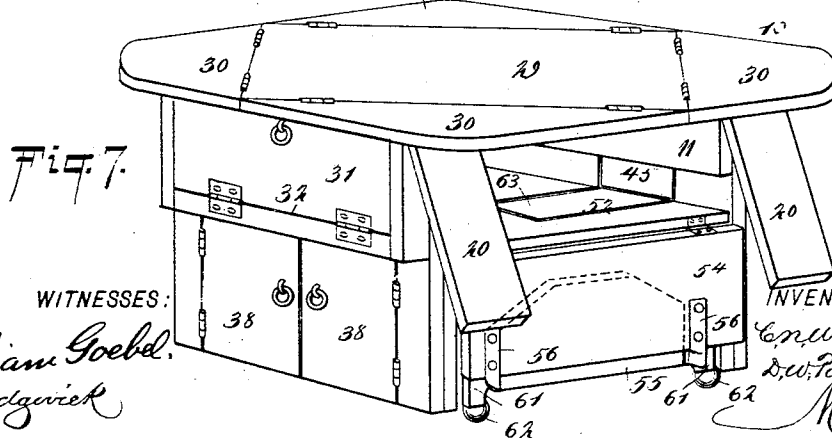
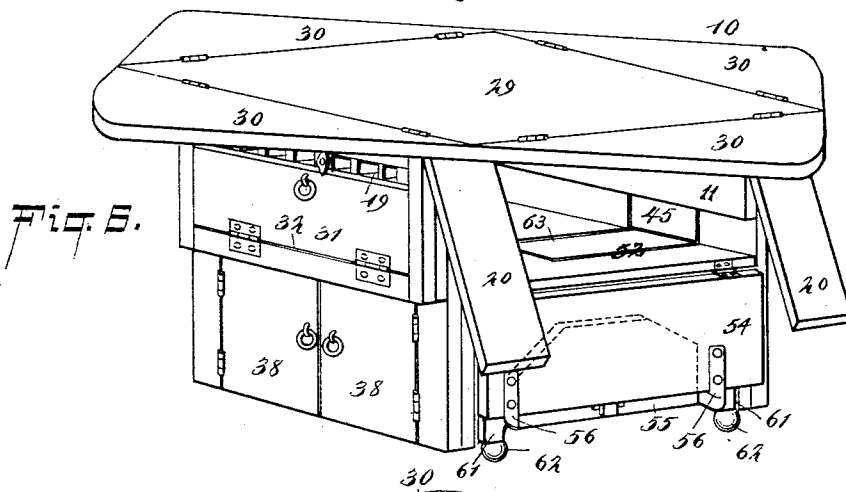
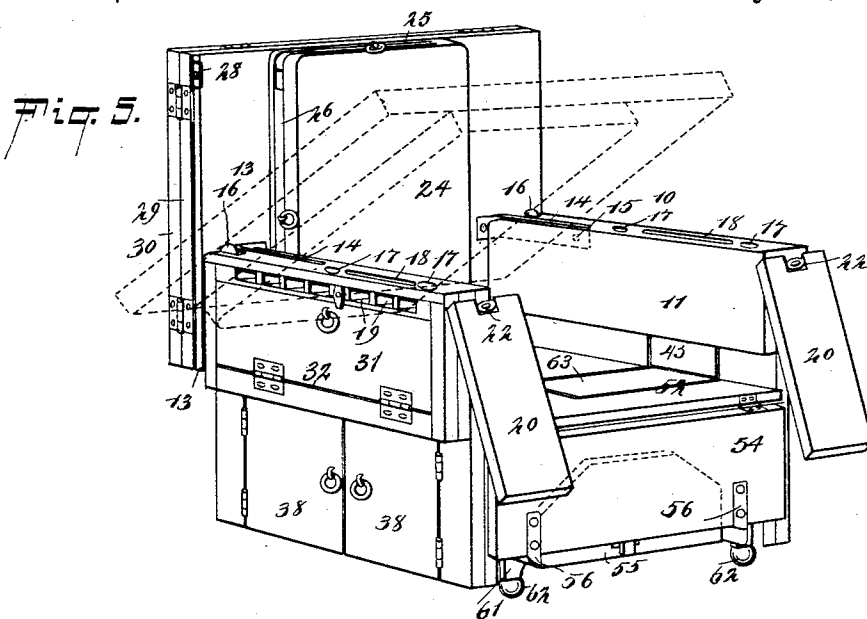
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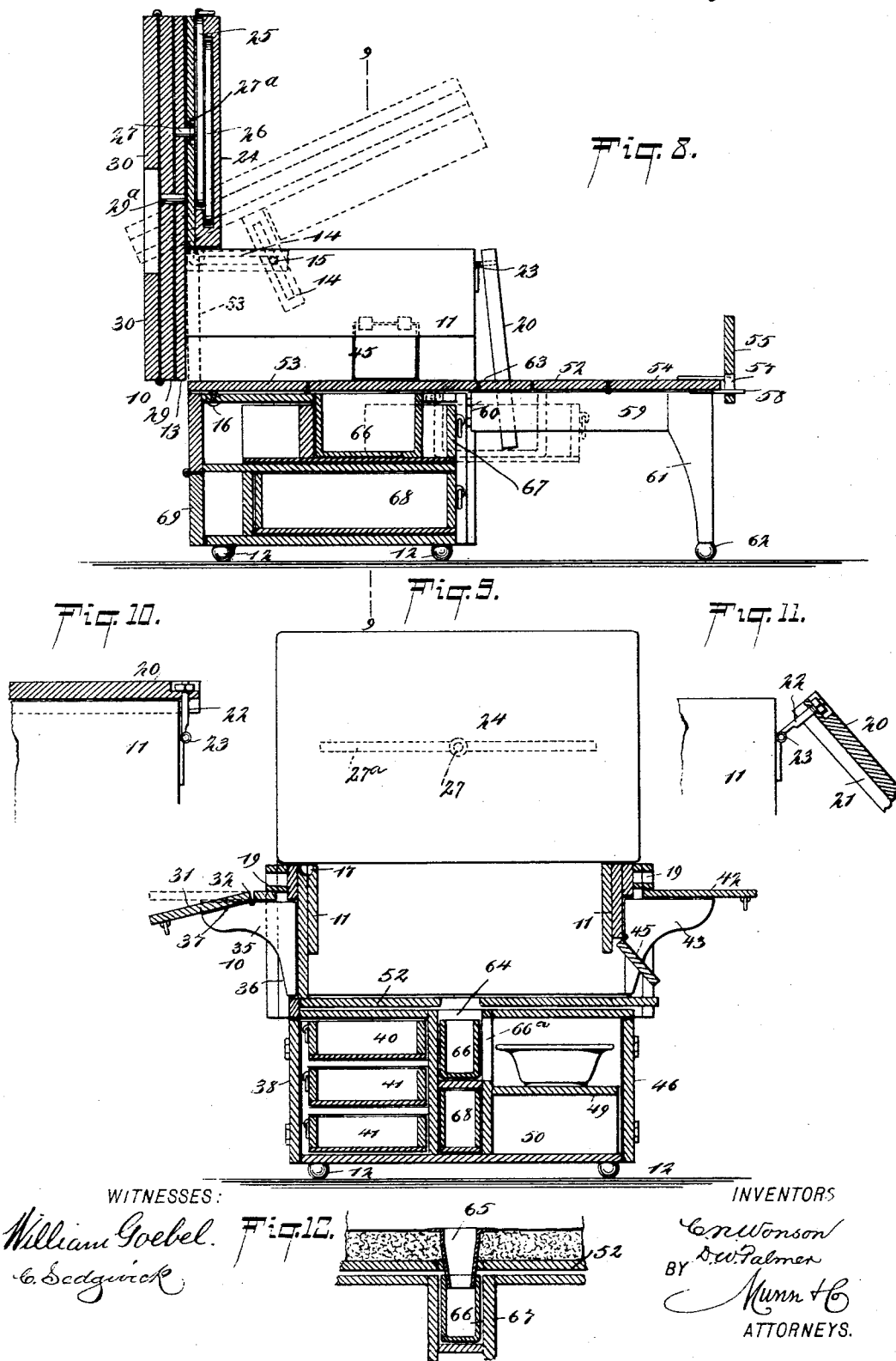
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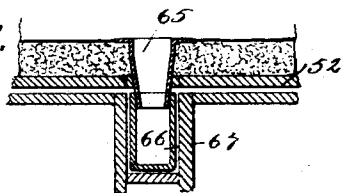
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Fig. 12.



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UNITED STATES PATENT OFFICE.

CLARA NEWTON WONSON, OF GLOUCESTER, MASSACHUSETTS, AND DENNIS WILSON PALMER, OF HERMON CENTRE, MAINE.

CONVERTIBLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 520,284, dated May 22, 1894.

Application filed May 15, 1893. Serial No. 474,280. (No model.)

To all whom it may concern:

Be it known that we, CLARA NEWTON WONSON, of Gloucester, in the county of Essex and State of Massachusetts, and DENNIS WILSON PALMER, of Hermon Centre, in the county of Penobscot and State of Maine, have invented a new and Improved Convertible Chair, of which the following is a full, clear, and exact description.

Our invention relates to improvements in household furniture; and the object of our invention is to produce an easy and commodious chair, which may be used like an ordinary easy chair, and which may be quickly and readily converted into very many other useful articles of furniture such as a sick chair, writing-desk and other things to be hereinafter described.

To this end our invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the chair embodying our invention, showing the mirrors in the back pulled out ready for use. Fig. 2 is a perspective view with one of the covers of the chair arms swung downward, with a side table ready for use, and with a compartment in one side of the chair thrown open. Fig. 3 is a perspective view from the rear, showing the opposite side of the chair to that illustrated in Fig. 2, and exhibiting the drawers in the chair and showing also the arrangement for a writing desk. Fig. 4 is a perspective view of the chair as arranged for a bed and showing the drawers partially open. Fig. 5 is a perspective view of the chair showing the arrangement of the false back which carries the mirrors when the chair is to be converted into a table. Fig. 6 is a perspective view of the chair when converted into a table. Fig. 7 is a similar view, but with the table top twisted or turned out so as to be supported upon the chair arm. Fig. 8 is a longitudinal section on the line 8—8 in Fig. 4 with the chair in position to form a bed. Fig. 9 is a cross section on the line 9—9

in Fig. 8. Fig. 10 is a detail sectional view, showing how the chair arm covers are arranged and with the cover in place upon the chair arm. Fig. 11 is a similar view, but with the cover turned outward and downward, and Fig. 12 is a detail sectional view illustrating the central arrangement of the sick chair when the chair is upholstered.

The chair 10 is shaped like an ordinary easy chair and is intended to be covered with suitable upholstery, but in the drawings it is shown bare, in order that its construction may be more clearly understood. It is provided with the usual arms 11 which are united to the body of the chair, and the body is of rectangular shape and has casters 12 at the lower corners.

The chair is provided with a flat table back 13 which is hinged to the arms by means of links 14, these being longitudinally slotted, as illustrated in dotted lines in Fig. 8, and the links are held upon bolts 15 and are adapted to lie flat in recesses in the top of the chair arms, as shown clearly in Fig. 5. This arrangement enables the chair back to assume a perpendicular position so as to perform the function of an ordinary chair back, or it may be swung upward and forward so as to lie horizontally upon the chair arms; and the slots in the links permit the links to slide downward upon the bolts 15 so that the back may lie firmly on the chair arms. The shifting of the back is facilitated by the anti-friction rollers 16 which are journaled in the top and at the rear ends of the arms, as shown clearly in Fig. 5. In the top of the arms are recesses 17 and slots or grooves 18, the recesses serving to receive ink-wells and sponges, and the grooves to receive pencils, pen-holders, and the like, these parts being adapted for use in connection with a writing desk, as hereinafter described. The chair arms have also on their outer sides and near the top pigeon-holes 19 in which various articles may be inserted. The arms are normally covered by the swinging covers 20 which are grooved on the under side, as shown at 21, so as to lie snugly upon the arm tops, and each arm is pivoted at its outer end to a bolt 22 which is hinged at its lower end, as shown at 23, and this arrangement enables the covers to be swung up-

ward and then turned laterally downward on the bolts so as to hang in the position illustrated in Fig. 5.

The chair back 13 is provided with a false back or mirror case 24 which extends transversely across the front of the chair back 13, and when the chair back is in a perpendicular position the false back or mirror case extends across the chair above the arms 11, as shown in Figs. 1 and 2. In it are sliding mirrors 25 and 26 which may be pulled out from the top and sides respectively, as illustrated in Fig. 1, thus converting the chair into a dressing-case. The side mirrors 26 are preferably hinged so that they may be turned at an angle to the mirror back 24 after they have been drawn out therefrom, as shown in Fig. 1. The mirror back 24 is fastened at its center, as shown in Fig. 8, to a bolt 27 and it is provided with a transverse slot 27^a adapted to slide on the bolt, as illustrated in the same figure. This arrangement enables the mirror case or false back to be moved laterally and then turned on its axis so as to extend longitudinally across the back 13; that is, in a position at right angles to its former position, and when thus arranged it is adapted to swing between the arms 11 of the chair, as shown in Fig. 5, so that the back 13 may be readily swung to position upon the arms. The mirror back is held from slipping sideways by buttons 28 on the edges of the back 13, and these buttons also overlap the table top 29 and prevent the latter from shifting. The table top is pivoted at its center, as shown at 29^a in Fig. 8, to the back 13, and it is of the same size as the back so that when the article of furniture is used as a chair the table may lie against the chair back, as in Fig. 3, and it will not be conspicuous. The table top is provided with folding leaves 30, which close flatwise against the top of the table, as shown in Fig. 3, and which may be held in this position by any suitable fastening devices. When the table top is in a horizontal position, as shown in Figs. 6 and 7, the leaves are turned outward into a horizontal position, so as to increase the size of the table.

When the chair is converted into a table, the false back or mirror case 24 is arranged as shown in Fig. 5 and as previously described, and the table top or back 13 is swung into a horizontal position with the back resting upon the chair arm, the leaves 30 are then turned outward and downward, as shown in Fig. 6, and the table top is then twisted or turned slightly so that the leaves will rest upon the corners of the chair back 13 and be thus supported.

On one side of the chair opposite one of the arms 11 and forming the outer side of the arm, is a shelf 31, which is jointed near one edge, as shown at 32, and is adapted to lie flatwise against the chair, as in Fig. 4, or be swung upward, as shown in Fig. 9. It is provided with end trunnions 33 which project from the ends near the lower edge of the shelf, and which are adapted to slide vertically in

slideways 33^a, as shown in Fig. 3. The shelf, when in its normal position, has the trunnions 33 at its lower edge and the upper edge is held in place by a button 34. Behind the shelf and pivoted in the chair arm are brackets 35 and 36, the former of which has its upper surface inclined downward, as shown at 37 in Fig. 9, so that when it is turned out to support the shelf 31 the outer portion of the shelf may incline, as shown in the same figure, and thus form a convenient writing desk, or the bracket 35 may be turned in and the bracket 36, which is square on top, may be turned out, in which case the shelf may be supported in a horizontal position, as illustrated by dotted lines in Fig. 9, and it thus forms a convenient side table which may be used by the occupant of the chair.

When the shelf 31 is to be turned outward, it is first raised so as to bring the trunnions 33 to the top of the slideways 33^a. Beneath the shelf 31 and on the same side of the chair are outwardly swinging doors 38, one of which is provided with a pocket 39 on its inner side which forms a convenient receptacle for note paper and the like, and behind the doors are drawers 40 and 41 of different sizes in which bedding or other articles may be placed. On the opposite side of the chair and on the outer side of the opposite arm 11 is a shelf 42, which is similar to the shelf 31, except that it is not jointed, but it is hung in the same way and supported by outwardly swinging brackets 43 which are adapted to lie flatwise behind the shelf when not in use. When the shelf is in a vertical position, as shown in Fig. 1, it is held so by a button 44 which is pivoted on the arm 11 and is adapted to overlap the edge of the shelf. When the shelf is raised and swung out and supported by the brackets, it forms a side table which may be conveniently used. Behind the shelf 42 is an outwardly and upwardly swinging door 45 which closes an opening through the chair arm and which is raised when the chair is to be used as a sick chair, as hereinafter described.

Beneath the shelf 42 and in the body of the chair is a compartment which is closed by outwardly swinging doors 46, one of which is provided on its inner side with a pocket 47 in which any desired articles may be placed, while the other carries a towel rack 51 of common construction. The compartment is provided with a space 48 to receive a pitcher and with a shelf 49 to support a bowl, while beneath the shelf is another compartment 50 in which any desired vessel may be placed.

The seat of the chair is formed of a movable bed piece 52, adapted to slide on friction rollers 16 (Fig. 8) which has at one end a leaf 53 adapted to turn up against the back 13 to help form a smooth back, as shown by dotted lines in Fig. 8, or to lie flat to help form a bed, as described below, while at the front edge of the bed-piece 52 is a second leaf 54 which normally hangs in front of the chair, as shown in Figs. 1 and 2. To this leaf 54 is attached

a foot-piece 55 which may be turned outward at right angles to the leaf 54 so as to form a foot-rest, as illustrated in Figs. 1 and 2, or a foot-board for the bed, as shown in Fig. 8, or it may be turned up beneath the leaf 54 so as to lie flatwise against it and be entirely out of the way, as illustrated in Figs. 6 and 7. The foot-piece is hung in suitable hangers or brackets 56 which are secured to the leaf 54, and the foot-piece has, near its hinged edge, a hole 57 into which projects a spring 58 which is secured to the leaf 54, and the pressure of the spring upon the wall of the hole or upon the face of the foot-rest serves to hold the latter in either a horizontal or vertical position as desired.

Hinged at 60 to the chair front, near the seat and on opposite sides, are the horizontally swinging supports 59 which, at their free ends, have vertical legs 61 with casters 62 at their lower ends and these supports 59 are adapted to be swung out so as to lie parallel with each other and extend forward from the chair body and thus support the bed formed of the bed-piece 52 and the leaves 53 and 54.

When the chair is to be converted into a bed the supports 59 are swung outward and forward, as illustrated in Figs. 4 and 8, and the leaf 54 is raised and the bed piece 52 pulled forward, so that the leaves 54 and 53 and the bed piece 52 are straightened out horizontally and a bed bottom is thus formed, which, when upholstered, needs no mattress, and on which the usual bedding may be placed, and a comfortable bed made. In the bed-piece 52 is a laterally movable slide 63 which when the bed-piece is in normal position registers with the door 45 and the slide may be moved by first raising the door. The slide 63 is adapted to cover an opening 64 in the chair which is adapted for use when the chair is used as a sick chair, and when the chair is upholstered, as shown in Fig. 12, the upholstering is protected by a rubber tube 65. When a bed is formed of the chair the slide 63 may be drawn out of the chair arms and it is then unnecessary to use the door 45. Beneath the opening is carried a suitable receptacle 66 which is held in a drawer 67, as shown clearly in Fig. 8, and this drawer is adapted to be pulled outward from the front of the chair but is normally hidden by the leaf 54. The receptacle 66 may be removed also through the side of the chair by opening the doors 46, as the back partition of the compartment is cut away for the purpose, as shown at 66^a in Fig. 9. This arrangement obviates the necessity of raising the leaf 54 to remove the receptacle when the apparatus is in the form of a sick chair. Beneath the drawer 67 is another drawer 68 which also pulls from the chair front and in which any necessary articles may be stored, while behind the drawer 68 is a small compartment closed normally by a door 69 on the back portion of the chair body.

From the foregoing description it will be

observed that the entire space of the chair is utilized for some practical purpose, that the various portions of the chair are arranged in a very convenient manner and so as to fold together and leave the chair in such a shape that it looks like an ordinary chair, and that the chair may be upholstered in the usual way so that it will make an ornamental article of furniture as well as a very practical and useful one.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with the chair having suitable arms, of an outwardly swinging shelf having end trunnions adapted to move vertically in slideways in the arms, and outwardly swinging brackets arranged behind the shelf and adapted to swing beneath and support the same, substantially as described.

2. The combination, with the chair having suitable arms, of an outwardly swinging jointed shelf having end trunnions adapted to move vertically in slideways in one of the arms, and swinging brackets arranged behind the shelf and adapted to support the shelf one of the brackets having an inclined top, substantially as described.

3. The combination, with the chair, of a drawer arranged beneath the chair seat, an outwardly moving slide in the seat above the drawer, and a door in one of the chair arms to register with the slide, substantially as described.

4. The combination, with the chair, of an extensible sliding bed piece forming the chair seat and adapted to be extended horizontally, leaves having a hinged connection with the front and rear edges respectively of the bed piece and rigid swinging supports hinged to the front of the chair and adapted to be turned outward beneath the bed piece, substantially as described.

5. The combination, with the chair, of an extensible bed piece forming the seat of the chair and provided with leaves which have normally a vertical position in front of and at the rear of the chair, and outwardly swinging supports hinged to the chair front and adapted to sustain the extended bed piece and leaves in a horizontal position, substantially as described.

6. The combination, with the chair and the leaf hanging in front thereof, of a foot-piece hinged to the lower edge of the leaf and having a hole near its hinged edge, and a spring secured to the leaf and adapted to project into the said hole to hold the foot-piece perpendicular to the leaf, the spring being also adapted for frictional engagement with the face of the foot-piece to hold the latter parallel with the leaf substantially as described.

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Witnesses:

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LAURA MCQUINN.