(No Model.) 2 Sheets—Sheet 1.

D. E. KEMPSTER.

FOLDING CONVERTIBLE CHAIR.

No. 396,496. Patented Jan. 22, 1889.

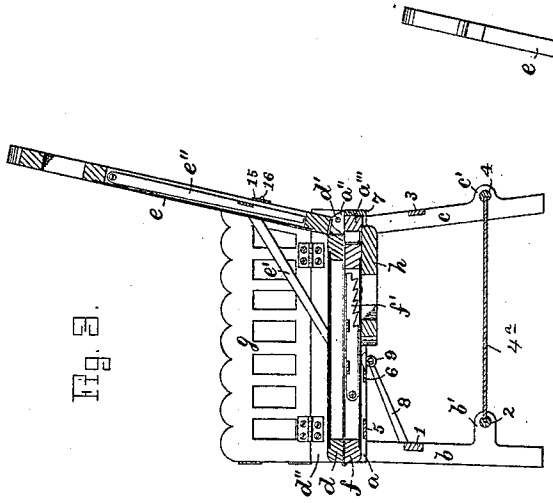


Fig. 3.

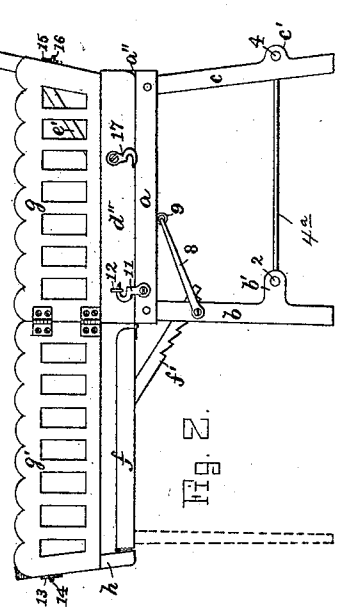


Fig. 2.

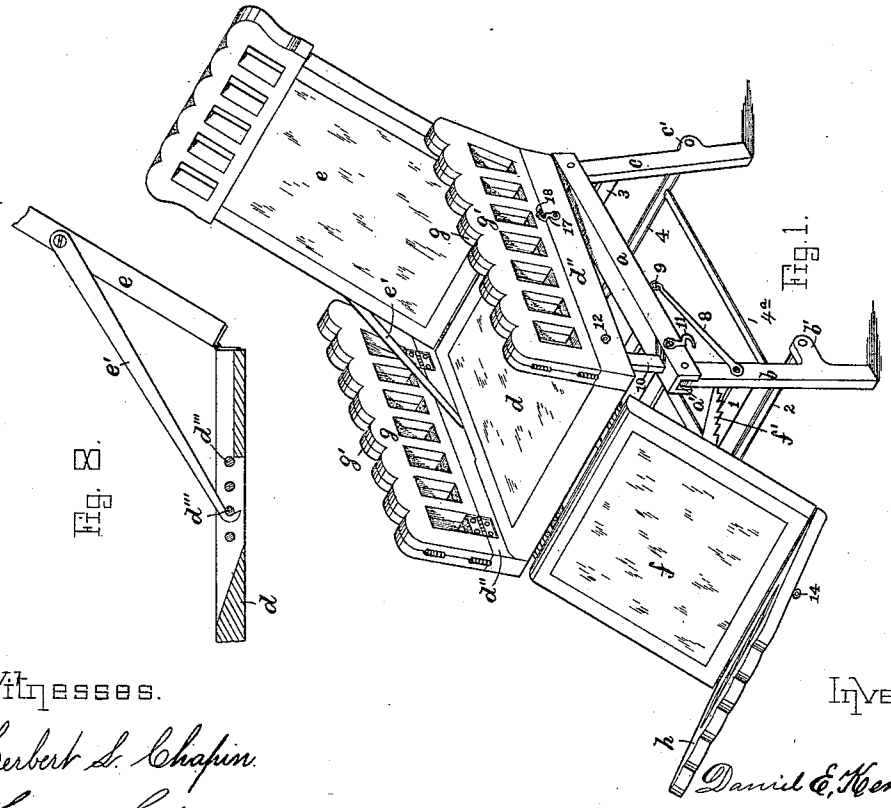


Fig. 1.

Fig. 4.

Witnesses.

Herbert L. Chapin.

Henry Chadbourn.

Inventor.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

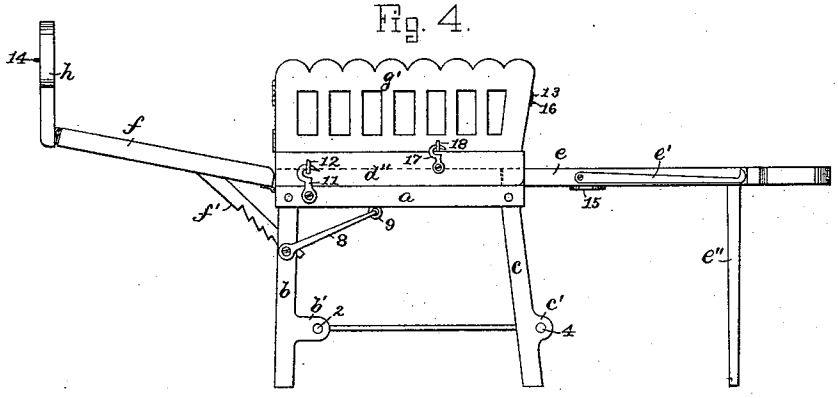


Fig. 5.

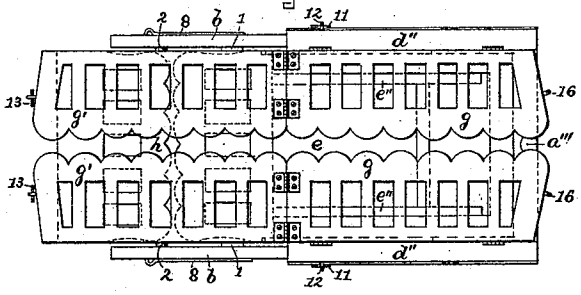


Fig. 6.

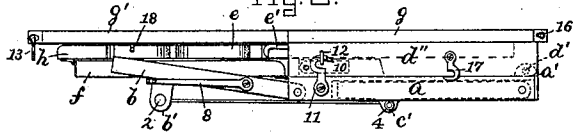
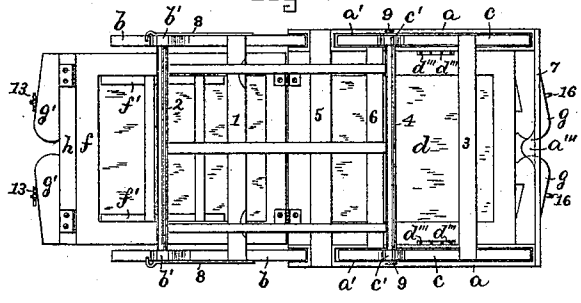


Fig. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

DANIEL E. KEMPSTER, OF BOSTON, MASSACHUSETTS.

FOLDING CONVERTIBLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 396,496, dated January 22, 1889.

Application filed January 23, 1888. Serial No. 261,643. (No model.)

To all whom it may concern:

Be it known that I, DANIEL E. KEMPSTER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Folding Convertible Chairs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to chairs which are capable of being folded up into small compass for convenience in transportation and economizing room, and also capable of being readily converted into a variety of forms, such as an easy-chair, reclining-chair, baby's crib, and lounge.

My invention consists in the construction of the chair and the manner of converting and folding the same, as herein described, and specially pointed out in the claims.

Figure 1 is a perspective view of my invention as a reclining-chair; Fig. 2, a side view as a baby's crib; Fig. 3, a central longitudinal section as an easy-chair; Fig. 4, a side view as a lounge. Figs. 5, 6, and 7 are respectively a top, side, and bottom view of my chair as in a folded-up position; Fig. 8, a detail of the locking mechanism of the back.

Similar letters of reference indicate corresponding parts in all the views of the drawings.

a is the frame of the chair, having grooves *a' a'* in its under side, in which are pivoted the four legs *b b c c* at points near the ends of said grooves. The legs *b b* are rigidly connected by the cross-bars 1 2, and legs *c c* are similarly connected by the cross-bars 3 4. The legs *b b* are pivotally connected with the legs *c c* by the cross-bar 4^a, and are all held rigidly in position when the chair is in use by the hooks 8 8, engaging the eyes 9 9, and are adapted to all swing together on their pivots in one direction when said hooks are disengaged and the chair folded up. (See Figs. 6 and 7.)

d is the seat, pivotally connected to the frame *a* by projections *a''* on the latter fitting into recesses in the former and connected by hinge-pins *d'*, passing through said seat and projections. (See Figs. 1, 3, and 6.) Said seat *d* has hinged or pivoted thereto the back *e* and rest *f*, said back having pivoted thereon the long hooks *e'*, which engage pins or projections *d'''* in the seat *d*, (see Fig. 8,) thereby holding the back *e* at any desired angle. Said back has also pivoted on the inner sides of the back of the frame two connected legs, *e''*, (see Figs. 3 and 4,) for supporting said back when let down for a lounge in the position shown in Fig. 4.

The seat *d* has pivoted within recesses in its under side two short legs, 10, which are adapted to swing out and rest on the frame *a*, and thus support said seat in an inclined position, if so desired, when the device is used as a reclining-chair. (See Fig. 1.) When preferred, the seat is held down level by the hooks 11 11, engaging the eyes 12 12. The rest *f* is hinged or pivoted to the seat in such a manner as to be capable of being elevated at an angle above the seat when used for the head of the lounge, (see Fig. 4,) and is adapted to be held there, or in any lower position, by the connected notched bars *f' f'*, pivoted on the inner sides of the under part of said rest, engaging with the cross-bar 1 on the legs *b b*. (See Figs. 1, 2, 4, and 7.) Said rest *f* has a foot-rest, *h*, hinged or pivoted at its lower edge, which is adapted to stand in the position shown in Figs. 1, 2, and 4, or be folded down flat on the rest *f*, as in Figs. 3 and 6. Said rest *f* is so hinged as to be capable of being folded in under the seat *d* (see Fig. 3) when used as an ordinary easy-chair. The seat *d* has also pivoted or hinged thereto the arms *g g g' g'*, said seat being made with side pieces, *d''*, which bring the hinges for the arms far enough above the seat to permit said arms to fold down flat on top of the back *e* when said back is folded down flat on the seat *d*. (See Figs. 1, 5, and 6.) Said arms are made in two parts, the parts *g g* being hinged to the seat so as to fold inwardly and lie flat on the top of the back, as aforesaid, and the parts *g' g'* being hinged to the parts *g g*, so as to fold outwardly and be brought in line therewith, thereby forming sides to a baby's crib, (see Fig. 2,) the rest *f* being held level by the notched bars *f' f'* and the hooks 13 13 engaging the eyes 14 14 in the foot-rest *h*,

thereby holding the parts securely in position. If desired, a leg may be hinged to the rest *f* and be swung down as an additional support. (See dotted lines, Fig. 2.)

When the device is used as an ordinary easy-chair, (see Fig. 3,) the arms are folded together and rigidly secured by hooks 15 15 on the back of the chair engaging eyes 16 16 on the ends of the arms *g g*. Said arms are also more firmly held in position by the hooks 17 17 on the sides of the seat engaging eyes 18 18 on the sides of said arms, and the hooks 13 13 also engaging the eyes 16 16 before referred to.

As shown in Figs. 6 and 7, the legs *b b c c* are adapted to fold down so that the legs *c c* lie in the grooves *a' a'* flush with the frame *a*, and the legs *b b* fold down each side of the rest *f*. The legs are all provided with rearwardly-extending portions *b' b' c' c'* where the cross-bars 2 and 4 connect therewith. This is for the purpose of bringing the bars 4^a in a proper position when the legs are folded down, and also to give the proper length to said bars or distance from the center of cross-bar 2 to center of cross-bar 4, so that when the legs are folded out in position for supporting the chair said legs will stand bracing or with the lower ends farther apart, as is usual with all chairs.

As shown in Figs. 5, 6, and 7, when the chair is folded up the seat *d* and rest *f* are in a level or parallel position with each other, the foot-rest *h* is folded down flat on top of said rest *f*, the back *e* is folded down flat on top of the seat *d* and rest *f* and level or parallel with the foot-rest *h*, and the arms *g' g'* are folded out on a line with the arms *g g* and both are folded inwardly down flat on the top of the back *e* and foot-rest *h*, thus bringing all the parts parallel and in a compact position.

When the chair is to be changed from the position shown in Fig. 1 to that shown in Fig. 3, the hooks 11 11 are disengaged from the eyes 12 12 and the seat *d* elevated far enough to admit of folding the rest *f* beneath the former, when it may be hooked down again in position, the projection *a'''* on the frame causing the foot-rest *h* to fold up and lie flat on the rest *f*. (See Fig. 3.)

It is obvious that the construction of my chair may be modified in some of its minor details without departing from the essential spirit of the invention—as, for instance, the arms *g g g' g'* may be hinged flush with the seat and fold down flat thereon, and in that case the back *e* would be hinged so as to fold over and lie flat on top of said arms instead of as shown in Figs. 5 and 6; also, the pins *d'''*, Fig. 8, may be dispensed with, the seat *d* made solid, and suitable metal ratchet-bars be screwed fast on the top of said seat for the hooks *e'* to engage with and hold the back at any angle; also, some of the cross-bars, both on the frame *a* and legs *b b c c*, may be dispensed with and suitable metal connections be used instead, thereby lessening the number of parts and adding to the strength of the chair. It must also be apparent that the crib part of my device may be used on ordinary arm-chairs, if necessary.

It must now be easily understood how to convert the chair into any of the various forms shown on the drawings, and how also to fold up the same for transportation.

The chair is cheap and easily operated, and it is of great convenience, particularly in crowded cities or places where room is scarce.

What I claim is—

1. In a chair, in combination, the seat *d*, the back *e*, hinged thereon, means, substantially as described, for adjusting and locking said back in position, the rest *f*, hinged to the seat, means, substantially as described, for adjusting and supporting said rest in position, the foot-rest *h*, hinged to said rest, the arms made in two parts, *g* and *g'*, the main parts *g* hinged to the seat and the parts *g'* hinged to the main parts *g* and adapted to fold around in line therewith, means, substantially as described, for locking the arms *g* and *g'* to the back *e* and foot-rest *h*, respectively, the legs *b b c c*, hinged and connected, substantially as described, so as to fold down flush with the frame or body of the chair, and means for locking said legs in an upright position, all substantially as and for the purpose set forth.

2. In a chair, the arms made in two parts, *g* and *g'*, the parts *g* hinged to the seat so as to fold down parallel therewith and the parts *g'* hinged to the main parts *g* so as to fold around in line therewith, a leg-rest hinged to the front edge of the seat, and means, substantially as described, for locking said arms securely in position, all combined and operating substantially as and for the purpose described.

3. In a chair, the combination, with the main frame *a*, having a rearward projection, *a'''*, of the rest *f*, hinged to the front edge of the seat and having the hinged foot-rest *h*, the leaves of the hinge being applied directly to the flat surface of said rest, and the projection *a'''* being so located as to engage with the end of the foot-rest *h* and fold it up against the rest *f* when the parts are turned beneath the seat, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL E. KEMPSTER.

Witnesses:

HENRY CHADBOURN,

HERBERT L. CHAPIN.