

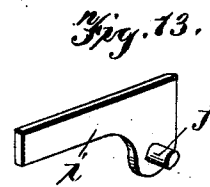
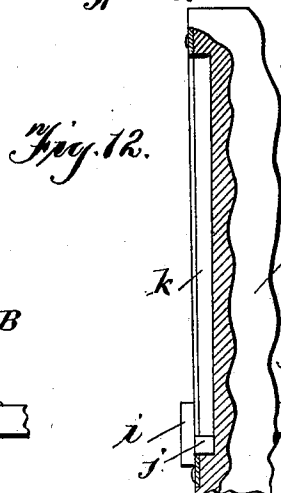
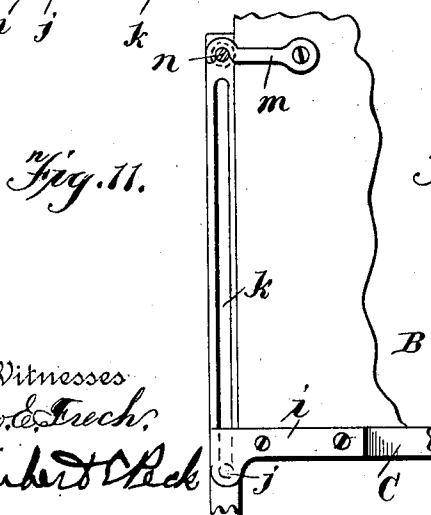
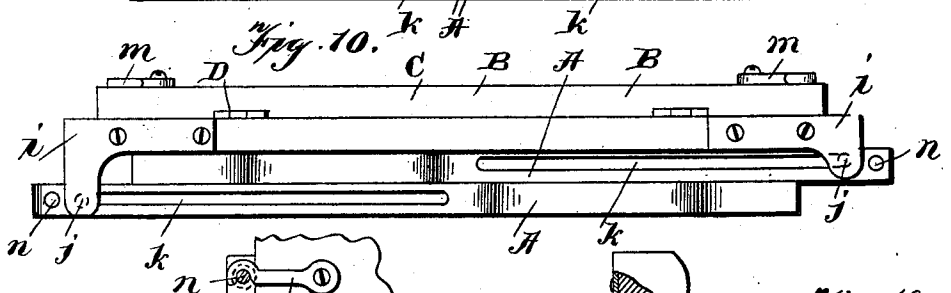
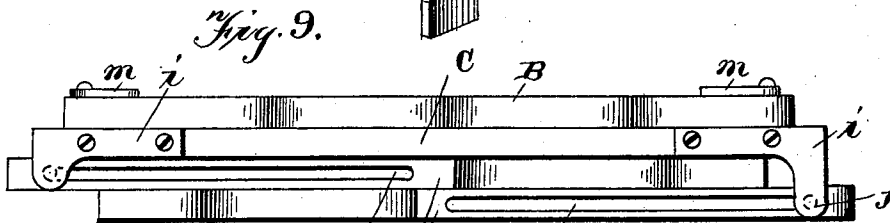
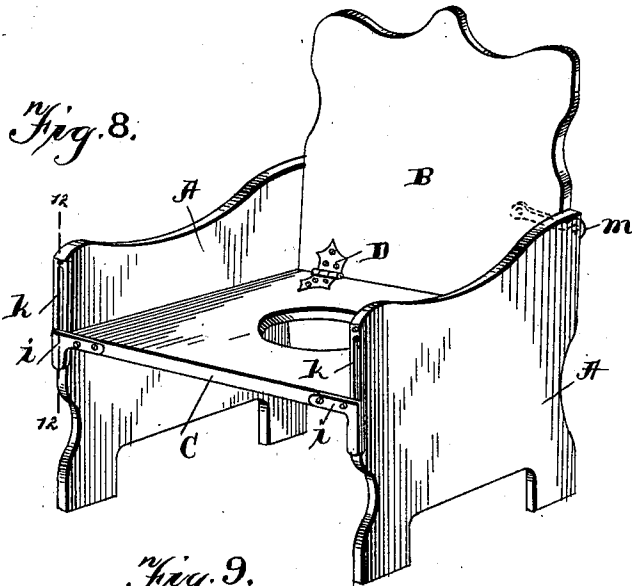
(No Model.)

2 Sheets—Sheet 2.

K. M. COONROD.
FOLDING CHAIR.

No. 592,695.

Patented Oct. 26, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

KITTIE M. COONROD, OF PORT JERVIS, NEW YORK.

FOLDING CHAIR.

SPECIFICATION forming part of Letters Patent No. 592,695, dated October 26, 1897.

Application filed March 27, 1897. Serial No. 629,539. (No model.)

To all whom it may concern:

Be it known that I, KITTIE M. COONROD, of Port Jervis, in the county of Orange and State of New York, have invented certain new and useful Improvements in Folding Chairs; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in folding chairs; and it consists in the construction and arrangement of parts which will be fully described hereinafter and particularly pointed out in the claims.

The object of my invention is to provide a chair consisting of a seat, back, and sides so arranged and connected that they will fold one over the other in a parallel position and thus occupy the least possible amount of space, whereby the chair is especially adapted to be transported in a trunk or satchel or to be folded up and placed out of the way after use. This chair has been constructed for and is more especially intended as a child's commode, as here shown, but is equally adapted for chairs of all kinds, where it is desirable to put them into a small space when not in use.

In the accompanying drawings, Figure 1 is a perspective view of a chair which embodies my invention. Fig. 2 is a view showing the chair folded, looking at it from the front edge. Fig. 3 is a similar view, looking at it from the rear. Fig. 4 is a detailed enlarged sectional view showing the locking devices for the back and sides. Fig. 5 is an enlarged detail sectional view taken on the dotted line 5 5 of Fig. 1. Fig. 6 is an enlarged detached perspective view of one of the rear hinges. Fig. 7 is an enlarged perspective view of the locking members for the back and sides. Fig. 8 is a perspective view of my chair, showing a modified form of hinges. Fig. 9 is a view of the chair from the front, showing the modified form of hinges and the chair folded. Fig. 10 is a similar view looking from the rear. Fig. 11 is an enlarged detail view looking from the rear and show-

ing a modified form of lock for the sides and back and the groove for the pintle of the modified form of hinge. Fig. 12 is an enlarged detail sectional view taken on the dotted line 12 12 of Fig. 8. Fig. 13 is an enlarged perspective view of the modified form of hinge.

Referring now to the drawings, A indicates the sides of the chair, which extend down, as shown, and form the supports or legs therefor. These sides may be shaped as here shown or of any other desired form and can be designed in open-work for the purpose of pleasing the eye, if desired, without affecting the spirit of the invention. Situated between the sides A is the seat C, and this seat is hinged at its front edge to the sides by means of links E, which have their outer ends pivoted to the front edges of the sides and their inner ends pivotally connected between depending ears *a* of the seat, whereby the links lie beneath and engage the under side of the seat, and thus form a support for the front edge of the seat, as will be understood. The rear edge of the seat is likewise hinged to the sides by means of links G; but in this instance the links are at a point outside of the chair, with inward-projecting ears *b*, which project under and support the rear edge of the seat.

A back B is hinged at its lower edge to the rear edge of the seat by means of the hinges D and has its lower portion of a width adapted to fit between the sides. Its upper portion may be of a corresponding width or of any desired design. As shown, the upper rear edges of the sides are curved upward, as at I, and provided with the longitudinally-slotted plates M, the slots *e* being preferably tapered or contracted rearward, as illustrated, and their front ends open, as illustrated at *f*. Secured to the sides of the back B are the depending members or arms *g*, at a point just above the plates M, and adapted to have their lower ends pass into the said slots *e* when the back is carried back into position, thus locking the sides against lateral movement, and the rear walls of the slots *e* serve to hold the back from being forced farther backward. In this manner the back and sides are provided with interlocking members, which serve the purpose of locking the sides against lateral

movement and the back against farther backward movement, thus holding the parts of the chair in their proper relative position for use.

As shown in Fig. 7, the lower ends of the interlocking members or arms *g* have their lower ends provided with heads *h* to catch under the slotted plates *M*; but this is not absolutely necessary, such construction serving only to make the interlocking action somewhat more firm.

To provide further support for the seat *C* and at the center, the sides are provided with intermediate recesses *c* and the seat at opposite sides with intermediate outwardly-extending projections *d*, adapted to enter the said recesses when the sides are turned into operative position. This construction, it will be understood, does not in any manner affect the operation of the chair, but merely serves to make an additional support for the seat, which in a commode-chair is desirable, for, as will be understood, the center of the seat is, on account of its opening, the weakest point thereof. However, the seat could be strengthened in other well-known ways, which would make the use of these projections unnecessary; but they are preferred as forming the most convenient and cheapest way of making the seat strong at the center and capable of standing the weight of the occupant.

In order to enable the close folding of the chair, as illustrated, with the sides lying against the seat and one side outside or against the other side, or, in other words, to enable the seat and sides to be successively folded outside of each other, as clearly shown in Figs. 2 and 3, it is necessary to have the back and front links at one side which form the hinges between the seat and the sides longer than the links at the opposite side to accommodate this folding of the chair, and the links at the right of the chair are shown sufficiently shorter than those at the left of the chair to provide for this action.

In operation the chair is set up by turning the sides in a parallel vertical position and then turning the back into the position shown in Fig. 1, with the arms or members *g* interlocking with the plates *M*. The parts of the chair are then locked in operative position for use. To fold the chair, the back is turned forward, which carries the interlocking members out of engagement, which releases the sides, and the sides are then folded under the seat, as clearly illustrated.

Figs. 8 to 13, inclusive, show a modified form of hinge and fastening devices for the back and sides, the operation of the parts being the same. In these figures the hinges are constructed of plates *i*, which are essentially L-shaped and have their horizontal portion secured to the four corners of the seat and their vertical portions provided with pintles or pins *j*, fitting and sliding in vertical grooves *k*, formed in the upper front ends of the sides. In this instance the back is hinged to the seat

by hinges *D*, as in Fig. 1, and the back is locked to the sides by means of hooks *m*, catching over headed pins *n*, projecting rearward from the upper rear edges of the sides.

In operation the pins or pintles *j* of the plates which form the hinges slide in the grooves *k* when the chair is either being folded or set up for use, and the hooks *m* unite them in position. The seat is supported in position in this instance by the pins or pintles *j* of the plates engaging the lower end walls of the slots *k*, as will be readily understood.

From this description it will be seen that in either form the seat and sides are hinged together and the back serves to unite and support the sides in position, and the sides serve to hold the back in its operative position, the construction being such in either construction that the sides can be folded under the seat, one outside of the other, as clearly illustrated.

The chair is thus especially adapted for children and as a commode-chair to be carried around when traveling, or to be set up out of sight when not in use, the whole being cheap and quick of manipulation.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A folding chair, comprising a seat, sides intermediately hinged at the sides of the seat, a back hinged to the seat and swinging above the same, the upper rear corners of the sides having open-ended horizontally-slotted plates, and the opposite sides of the back having projecting members adapted to engage the slots of said plates and unite the sides and back, substantially as described.

2. A folding chair comprising a seat, sides intermediately hinged to opposite sides of the seat, a back hinged to and swinging above the seat, the upper rear ends of the sides having upwardly-curved slotted plates with open inner ends, and the sides having interlocking members adapted to pass through the open ends of the slots of said plates and engage the side walls thereof for locking the sides and back in position for use, substantially as described.

3. A folding chair comprising a seat, sides forming feet, horizontal links connecting the seat and sides, a back hinged to said seat, and interlocking members between the back and sides, substantially as described.

4. A folding chair comprising a seat, sides forming feet, horizontal links connecting the seat and sides, the links engaging and supporting the seat, a back, the back and seat having interlocking members, substantially as described.

5. A folding chair comprising a seat, sides therefor forming feet, links connecting the front edges of the seat and sides, the links being below and engaging the under side of the seat, links connecting the rear edges of the seat and sides, said rear links having inwardly-

projecting members engaging the underside of the seat and supporting the same, a back movable in relation to the sides, the back and sides having interlocking members, substantially as described.

6. A folding chair comprising a seat, a back hinged thereto and adapted to fold inward, sides intermediately pivoted to the seats and forming feet, the pivotal points of one side portion situated to cause it to swing in a larger

circle than the opposite side, whereby one side will fold inside of the other side in respect to the seat, and interlocking members for the sides and back, substantially as described.

In testimony whereof I affix my signature 15
in presence of two witnesses.

KITTIE M. COONROD.

Witnesses:

EUGENE H. COONROD,
OBADIAH P. HOWELL.