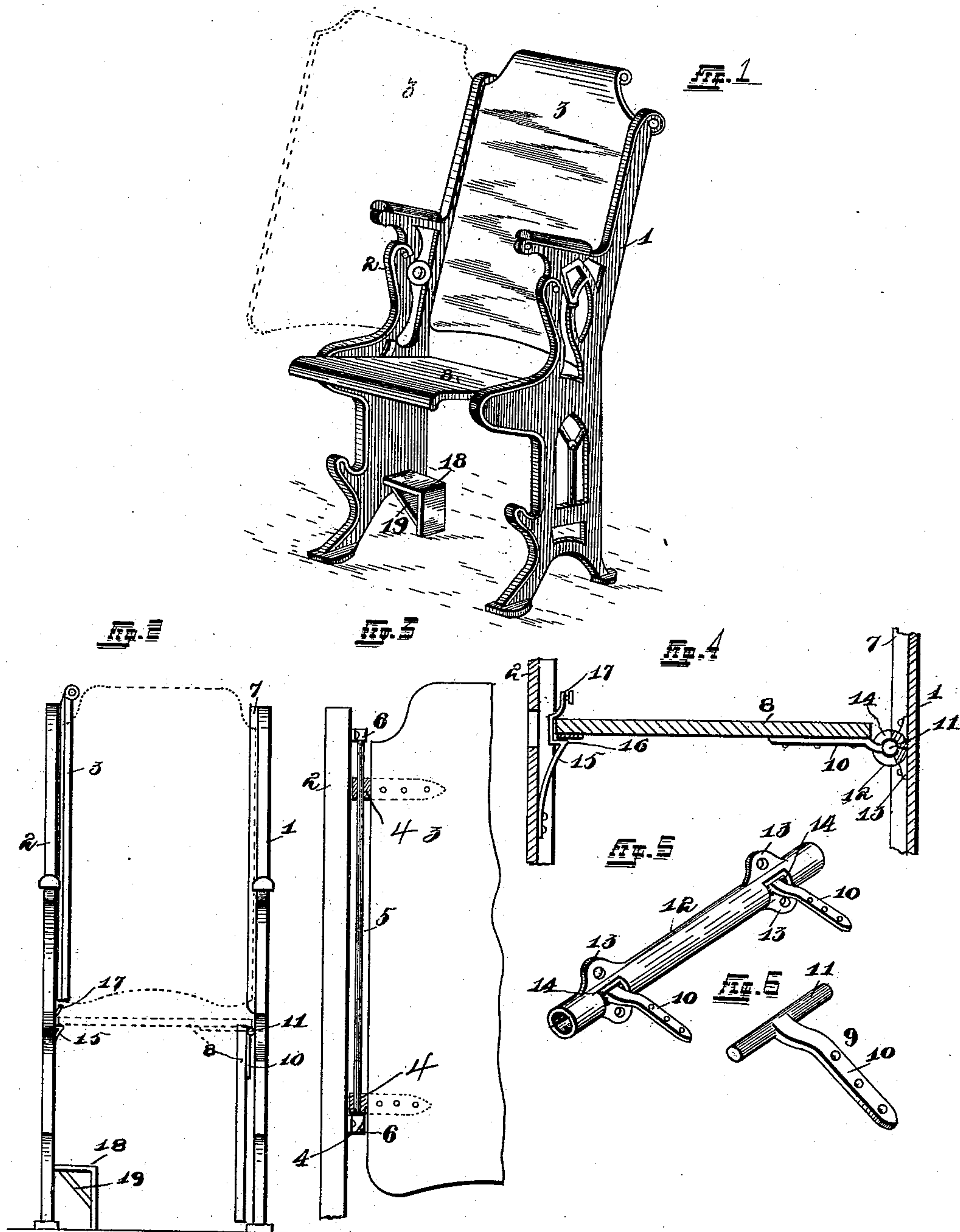


(No Model.)

M. W. KEMPNER.
OPERA CHAIR.

No. 506,914.

Patented Oct. 17, 1893.



WITNESSES
Oliver O. Eicher
Herbert D. Robinson

Inventor,
Moses W. Kempner.
By Higdon and Higdon and Longan, Attorneys.

UNITED STATES PATENT OFFICE.

MOSES W. KEMPNER, OF ST. LOUIS, MISSOURI.

OPERA-CHAIR.

SPECIFICATION forming part of Letters Patent No. 506,914, dated October 17, 1893.

Application filed January 28, 1893. Serial No. 459,981. (No model.)

To all whom it may concern:

Be it known that I, MOSES W. KEMPNER, of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Opera-Chairs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved "folding opera-chair," of the class wherein both back and seat are arranged to fold for the purpose of converting the entire floor-space into aisles, and it consists in a novel construction, combination and arrangement of parts by which the construction of the chair is simplified and rendered very strong, durable and positive in action.

The principal object of my invention is to provide the greatest amount of space between the two standards of the chair when the back and seat are folded, and this is attained by the mechanism hereinafter described and designated in the claims.

In the drawings, Figure 1 is a perspective view of my improved chair, with the back and seat in normal position. Fig. 2 is a front-elevation of same, with the back and seat folded. Fig. 3 is a detail sectional elevation of a portion of the back and adjacent standard, to which said back is hinged. Fig. 4 is a detail sectional front-elevation of the seat and two adjacent standards, partly broken away. Fig. 5 is a detail view, in perspective, of an improved mechanism for pivotally-connecting the seat to the standard that is opposite the one to which the back is hinged. Fig. 6 is a detail-view, in perspective, of a portion of said last-mentioned mechanism.

An important portion of my invention is that the back of the chair is hinged to one standard of the chair, and the seat is pivotally-connected to the other standard of the same chair, so that said back folds forward parallel with the standard to which it is hinged and the seat folds downward parallel to the other standard of the chair, and so that both back and seat fold very closely to their respective standards, and leave a comparatively-wide passage between said back and seat when thus folded, said passage being amply sufficient in dimensions for the movement

of persons of ordinary size between said back and seat when folded.

1 and 2 indicate the usual standards of the chair, which have common arms and feet or legs, and 3 represents the back. The back is provided at one of its vertical edges with ears 4 having aligned vertical apertures which are engaged by a vertical-rod 5 having its ends fixed in brackets 6 projecting from the inner adjacent side of the standard 2, so that said back is hinged at one of its edges to said standard, and is free to be swung around forward to the position indicated by dotted lines in Fig. 1, and with its front face closely adjacent the inner side of said standard, or in contact therewith. (See Fig. 2.) The ears 4 are free to slide up and down on the said rod, although the lower one normally rests upon the lower bracket 6, and thus retains the back at the proper height with relation to the standards of the chair. The said back may readily be folded forward, as previously described, but is held in normal position and prevented from being pushed backward past the adjacent standard 1 by contact with a continuous rib 7 which extends the full-length of said standard above the seat and projects from the inner rear corner thereof in rear of the normal position of the adjacent edge of said back, and so forms a very efficient stop for such purpose, and prevents twisting and bending of the free edge of the back at any point in its length.

8 indicates the seat, to the under side of which the shanks 10 of two connecting-irons 9 are secured by means of screws or other common fastenings, so that the outer ends of said shanks project a distance beyond one side of said seat. The connecting-irons 9 are made substantially T-shaped in plan-view, there being a cylindrical pintle 11 projecting on opposite sides of the outer ends of said shanks 10, at a right-angle thereto and so that the pintles of each shank are in alignment, and extend each parallel with said edge of the seat, but at a distance therefrom. (See Figs. 4 and 5.) The seat has, preferably, two of these connecting-irons, but a larger number may be used by mere duplication.

12 indicates a connecting-tube, which is provided with peripheral perforated-lugs 13

at points adjacent each of its ends, screws or other common fastenings being inserted through the perforations of said lugs, to secure the said tube in position upon the inner surface of the standard 1, so that the periphery of said tube lies a little below the plane of the upper surface of the seat when in normal position, but parallel therewith as shown in Fig. 4. Openings 14 are formed in the said tube 12 at points adjacent the ends thereof, an opening adjacent each end and preferably at points on a transverse-line drawn through the perforated-lugs which are located thereat. The pintles 11 of the irons 9 are located within said tube, the bore thereof forming a bearing for each pindle. The pintles are arranged to be rocked within the said bore during the operation hereinafter mentioned. The shanks 10 project through said openings of said tube, and these openings are sufficiently large to permit rocking of said pintles within their bearings within the limit of the ordinary movements of the seat, but the upper edges of said openings form stops to limit the upward movement of said shanks and consequently said seat, as in Fig. 5 the shanks are shown in contact with said stops.

15 indicates an automatic-holder or lock for retaining the seat in normal position and preventing its accidental movement at its free side, either up or down. This lock is preferably in the form of a piece of spring-metal having its lower end fixed to the inner side of the standard 2, and bent to form a shoulder 16 at a point just above its point of attachment to said standard, a recess just above said shoulder, and a stop just above said recess. The shoulder 16 normally projects, and is retained, in the path of the free edge of said seat, as is also the stop 17 above said recess. The stop above the recess is what I may term the upper stop, and it may be as here shown in the form of a knob or handle located at or adjacent the upper end of said lock in the path of the free side or edge of said seat to limit the upward movement thereof, or it may be formed by bending the metal of which the lock is composed, inward to form a projecting-portion as is also shown. (See Fig. 4.)

18, 19 indicate a hat-holder applied to the chair beneath the seat thereof, and which may be of any common kind.

The operation is as follows:—When it is desired to form a passage for persons between the two standards, and between the back and seat of the chair, the parts are removed from the position in which they are shown in full lines in Fig. 1, and the back is turned to the position indicated by the dotted lines, until it stands with its front face in contact with the inner surface of the standard to which it is hinged, the perforated ears 4 turning on the rod 5 to permit such operation, when such a passage will be formed as soon as the seat 8 is dropped to the position in which it is shown in full lines in Fig. 2. Any common fastening may be applied to retain the back

in the position just described, although I have shown none, and none is necessary. To drop the seat, all that is necessary is to press outward the knob or stop 17 of the lock 15 until the shoulder 16 of said lock is removed from the path of the free edge or side of said seat, when same will gravitate downward automatically to the position in which it is shown in full lines in said Fig. 2, without further attention, thereby forming a clear passage between the back and said seat—the back being located adjacent and secured to one standard and the seat located adjacent and secured to the other standard of the pair with which the chair is provided. As the seat is moved the pintles 11 rock or move in the tube 12. The back may be quickly thrown to its normal position when it is desired to use the chair as a chair, its free edge contacting with the continuous-rib 7 on the standard 1 and is stopped at the proper position, and is thereby provided with a substantial bearing throughout its length, preventing bending, creaking, &c., at such point. The seat may also be quickly thrown to normal position by swinging its free edge upward until such edge contacts with an incline formed on the lock 15 just below the shoulder 16 thereof, and as the upward movement of said edge continues the upper end of said lock is pushed outward, removing the said shoulder from the path of said edge until this edge passes to a plane just above said shoulder, when the resiliency of said lock will automatically throw said shoulder beneath said edge, and cause said recess in said lock to engage said edge, and also cause said upper stop 17 to be thrown into the path of said edge, and limit the further upward movement of said edge until said stop is again pushed outward as described.

I am aware that various folding opera and other styles of chairs have been made and patented, with folding backs and seats, some with backs and seats connected together to swing laterally upward, some with backs arranged to swing downward independently of the seat, some with seats arranged to swing upward and downward independently of the back, and some in which the standard to which the seat is hinged is bodily detachable from the floor and movable with the seat and back. But in none of them is there a back pivotally-secured to one standard to fold forward, and a seat secured to the other standard to fold downward and form a passage for a person between the back and seat of the same chair as in my improved construction, and in many of the above-mentioned chairs which are old in the art, there is required a special shape of the back or seat, whereas by arranging the back and seat to swing independently of each other they can be shaped in any known or common and cheap and simple manner, thereby permitting me, as herein shown, to make use of many common backs and seats heretofore in use without much expense for bringing about the change.

What I claim is—

1. The improved opera-chair, comprising two standards 1 and 2, the back hinged to one of said standards to fold forward into contact with the inner side of the standard to which it is hinged and the seat pivotally-connected to the other standard of the same chair to fold parallel to the standard to which it is pivotally connected, substantially as herein specified.

2. The improved opera-chair, comprising two standards, a back hinged to one of said standards to fold forward parallel with and with its front face in contact with the inner side of said standard to which it is hinged, a seat pivotally connected to the other standard to fold downward independent of said back and rest parallel to the inner side of the standard to which it is pivotally connected, to form a passage for persons between said back and said seat, and means for holding said seat and said back in a position for use as a chair, substantially as herein specified.

3. The improved opera-chair, comprising a pair of standards 1 and 2, a back secured to said standards to fold and form a passage for a person between them, a seat 8, connecting irons 9 having shanks 10 secured to the under side of said seat adjacent one side of same so that the outer ends of said shank project a distance beyond said side of said seat, said irons being T-shaped in plan view, and having cylindrical pintles 11 projecting on opposite sides of the outer portions of said shanks at a right angle thereto so that the pintles of each shank are in alignment and extend each parallel with said edge of the seat but at a distance therefrom, a connecting-tube 12 pro-

vided with peripheral perforated lugs 13 at points adjacent each of its ends and secured in position upon the inner surface of the standard 1 so that the periphery of said tube is located a little below the plane of the upper surface of said seat but parallel therewith, said tube having openings 14 at points adjacent its ends, there being an opening adjacent each end at a point on a transverse line drawn through the perforated lugs which are located thereat, said pintles 11 being located within said tube, the bore of the tube forming a bearing for each pintle, said shanks projecting through said openings, the upper edges of said openings forming stops to limit the upward movement of said shanks, and a lock for retaining the seat in normal position, substantially as herein specified.

4. The combination in a folding opera-chair of standards, a folding-back, a seat having one of its sides pivotally connected to one of said standards, and the automatic lock formed of a piece of spring metal and having its lower end fixed to the inner side of one of said standards and bent to form a shoulder 16 at a point just above its point of attachment to said standard, a recess just above said shoulder, and a stop 17 just above said recess, said shoulder and said stop normally projecting into the path of the free edge of said seat and retained thereat by resiliency of said lock substantially as herein specified.

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

MOSES W. KEMPNER.

Witnesses:

HERBERT S. ROBINSON,
ALFRED A. EICKS.