(No Model.)

J. P. HINDMAN.

ADJUSTABLE CHAIR.

No. 435,224. Patented Aug. 26, 1890.

FIG. 1.

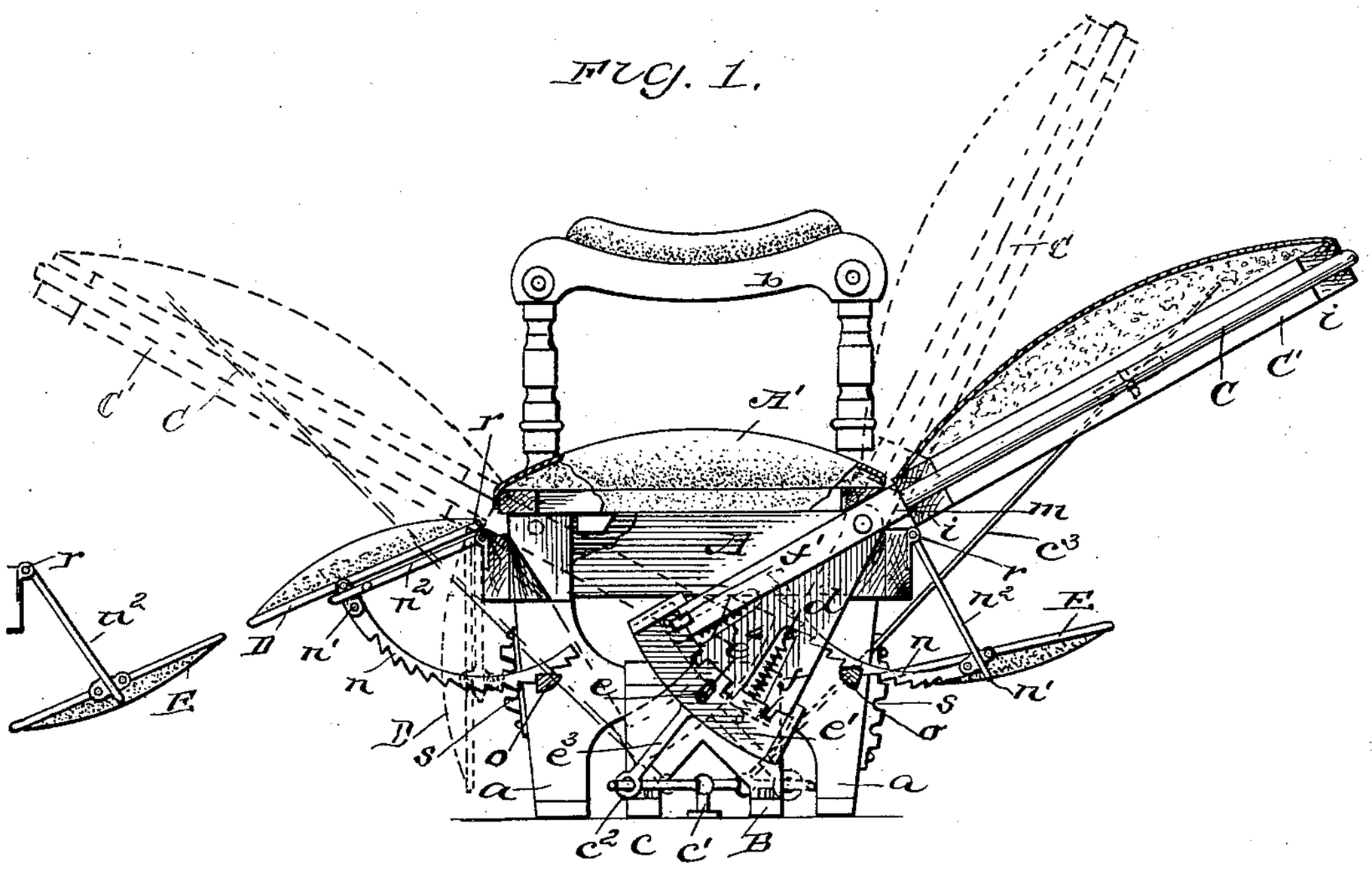

FIG. 2.

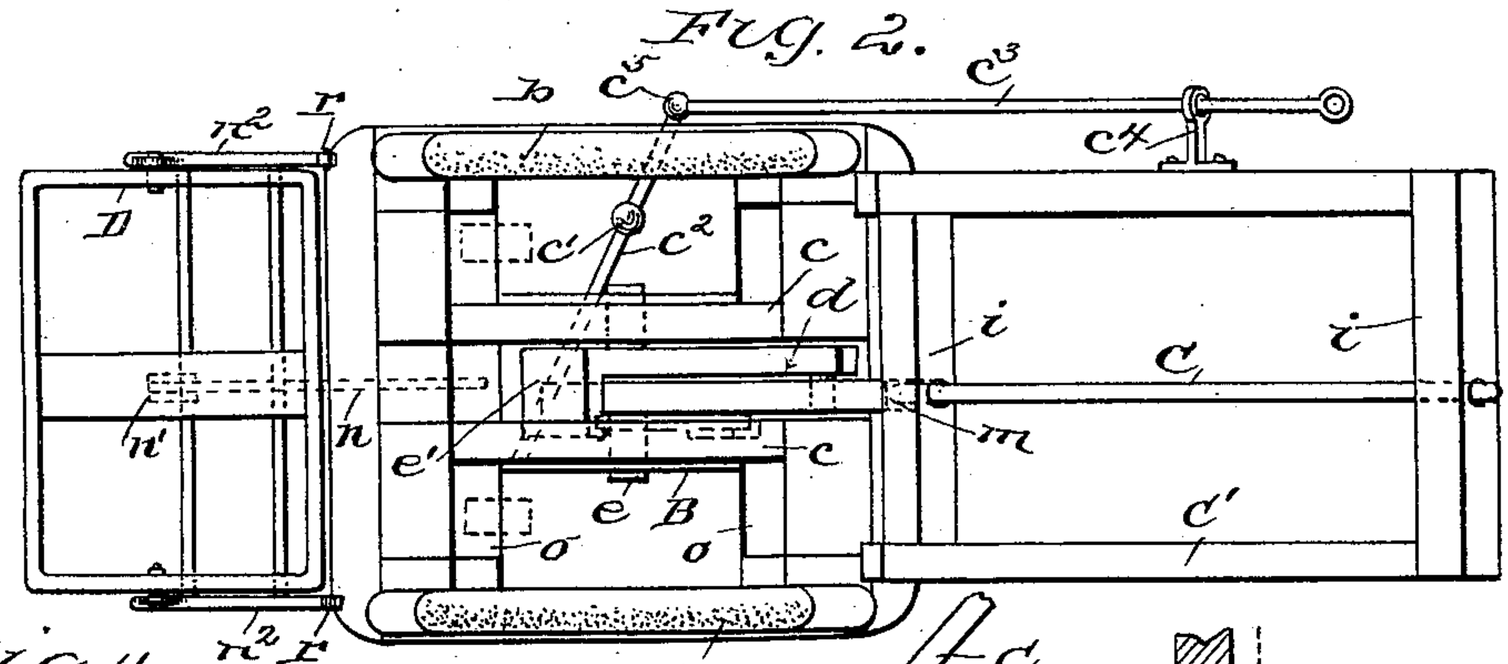

FIG. 4.

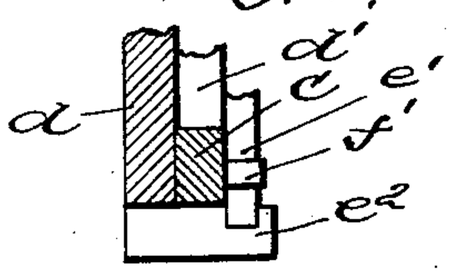

FIG. 3

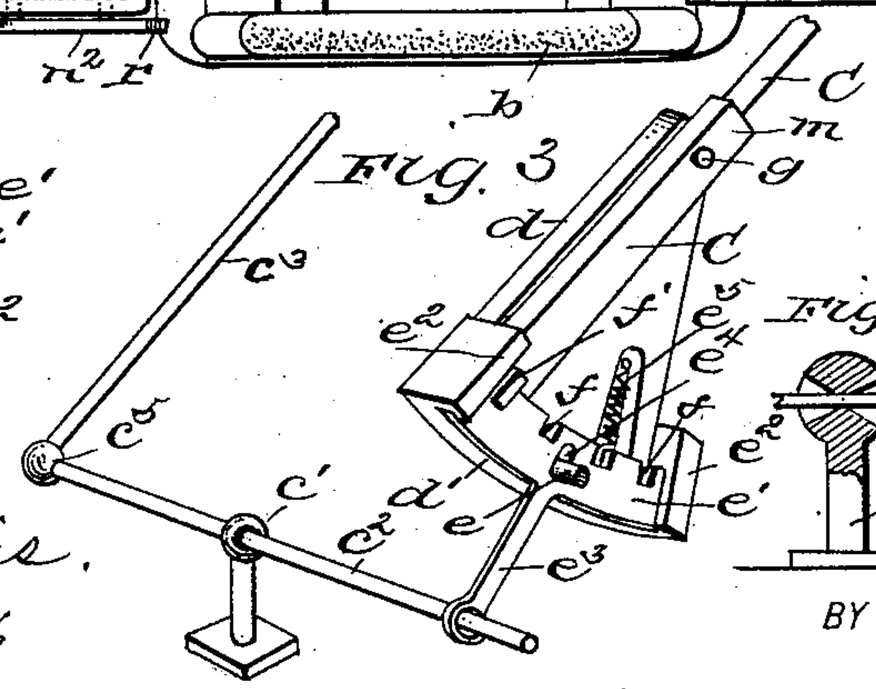

FIG. 5.

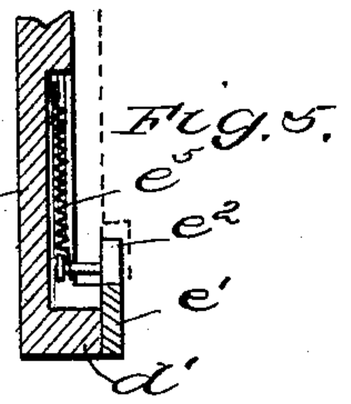

FIG. 6.

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JAMES P. HINDMAN, OF OLATHE, KANSAS.

ADJUSTABLE CHAIR.

SPECIFICATION forming part of Letters Patent No. 435,224, dated August 26, 1890.

Application filed March 27, 1890. Serial No. 345,577. (No model.)

To all whom it may concern:

Be it known that I, JAMES P. HINDMAN, of Olathe, in the county of Johnson and State of Kansas, have invented a new and Improved Adjustable Chair, of which the following is a full, clear, and exact description.

This invention relates to improvements in adjustable chairs, and more particularly to such as are used in passenger railroad-cars, the objects being to provide a chair which may have its back reversed, and also inclined at different angles, and, further, to afford adjustable leg and foot supports which are independent of the back.

To these ends my invention consists in certain features of construction and combinations of parts, which are hereinafter described, and indicated in the claims.

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

Figure 1 is a side elevation of the seat or chair, partly in section, showing the foot and leg rest, as well as the back adjusted in different positions. Fig. 2 is a plan view of the chair-frame with the upholstering removed to show the parts it would cover; and Figs. 3, 4, 5, and 6 are views of the back-support removed from the chair.

A represents the rectangular frame of the chair, having legs *a* attached to support it at a proper height. Upon the sides of the frame arm-rests *b* are erected, which are suitably upholstered, or may be left plain, if preferred.

Below the chair-frame A a bracket-stand B is located, it being secured in its position by any suitable means. This frame may be attached to a base-board of the frame or directly upon the floor on which the frame stands. The bracket-stand B is composed of two upright parallel walls *c*, that are sufficiently spaced apart to receive between them the segment-piece *d*, which latter is pivoted at *e* near its lower edge and at the center of width, so that it may rock freely between the bracket-walls, whereon it rests. The foot *d'* of the segment *d* is provided with upwardly-extending flanges e^2, which are laterally projected from its side edges in alignment with the edges of the upper portion of the segment *d*, to which they are attached. Said flanges serve to prevent the displacement of a standard and its locking-plate, which will be described. At the upper end of the segment-piece *d*, upon the side on which the laterally-projecting foot-block *d'* is formed, a stud *g* is inserted and projects, which stud should represent the center of a circle of which the curved foot-block *d'* is an arc.

A standard C is provided to afford support for the chair-back C', and to this end is rounded and of a length to extend through a proper-sized perforation formed in the back-frame cross-bars *i* at the center of width, the cylindrical portion of the standard being thus adapted to sustain the chair-back and permit it to revolve on a shoulder produced on the standard at *m*, which shoulder engages the lower surface of the bottom cross-bar of the back-frame, the lower portion of the standard C being preferably made square or rectangular in cross-section below the shoulder *m*.

Upon the foot of the segment *d* between the guiding-flanges e^2 a segmental locking-plate *e'* is located in proper grooves, as shown in Fig. 3, said plate being arched to give it a form similar to the foot of the segment *d*, and is held in the grooves formed for its reception in the flanges e^2 by the spiral springs e^5, these latter being located in open recesses cut in the side of the segment-wall, their upper ends being fastened to the segment-body, leaving the springs free to expand and contract, while their lower ends are attached to the upper edges of the locking-plate *e'* and hold said plate normally elevated to interlock with the standard C, as will be explained. At about the center of length of the plate *e'* an arm e^3 is projected downwardly therefrom, which arm terminates in a ring, through which one end portion of a rounded tripping-lever c^2 is inserted. The main portions of said lever, being extended toward the side of the chair-frame A, project outside of the same a short distance, passing through the perforated head of a fulcrum-post *c'*. The orifice in the head of the fulcrum-post *c'* is cupped from each side toward the center, which will permit the tripping-lever c^2 to swivel in any direction from a horizontal plane, and upon its outer

end a universal cup-and-ball joint of ordinary form is placed, to which is also attached the upwardly-extended sliding rod c^3, that loosely engages the perforated outer end of the bracket-post c^4, which post is affixed on the side face of the back frame C′ at a convenient point for manipulation when the adjustment of the chair-back is to be changed. The plate e' is perforated near its center, as at e^4, to receive the pin e, which perforation is elongated sufficiently toward the upper edge of the locking-plate to permit a sliding depression of the latter.

A series of several notches f are cut in the upper edge of the segmental locking-plate e', which may separately be engaged by a locking-lip f', formed on the side of the lower end of the standard C, so that by the construction of parts, as described, the depression slightly of the rod c^3 will carry the plate e' away from the locking-lip f' and permit the chair-back C′ to receive a different degree of inclination, which when attained will be secured by the re-engagement of the lip f' with an appropriate notch in the segment-plate e'.

When the chair-back is upholstered, the lower surface of the bottom cross-bar i of its frame is left uncovered, so that it may rest upon the rear edge of the seat-frame, whereby the back is retained in proper position as a support for the occupant of the chair.

As represented in full and dotted lines in Fig. 1, it is apparent that different degrees of inclination may be given to the chair-back C′, and, should it be necessary, the seat-back can be rocked over to the opposite side, so as to change its front, as shown in dotted lines in Fig. 1, the degree of inclination being adjusted as before explained, and when the seat-back is turned over the upholstered side is given a correct position by a half-revolution of the back-frame upon the standard C.

As this reversible chair is mainly designed for use in railway-cars, and therein arranged in rows at spaced distances from each other, each chair is provided with two leg-rests D E, which are identical in form, these being comprised of rectangular frames suitably upholstered on one side. The rests D E are hung in swinging bail-hangers n^2, that are pivoted to the chair-frame at r on the sides engaged by the back-frame C′, and are therefore reversible, so that the upholstered sides may be turned below and the wooden faces brought above. Each leg-rest is made adjustable as to its inclination by the curved ratchet-bars n, one being provided for each leg-rest. These ratchet-bars are jointed at n' to the bail-hangers n^2 and project their free ends inwardly, whereby their bodies are free to adjust their teeth in engagement with the properly-shaped stretcher-bars o on the chair-frame and alterably retain the leg-rests D E at any degree of inclination required. By the provision of two leg-rests the chair is equipped for use on either side, as may be needed, and it will be noticed that the leg-rest of a seat in advance may by reversing it serve as a foot-rest for the chair-occupant in its rear, and when so employed can be retained projected at any desired angle by engaging one edge with the rack-cut plates s, that are placed oppositely on the edges of the leg-supports a, as shown in Fig. 1. When not in service, the leg-support D can be lowered into a vertical position, which it assumes when permitted to hang pendent from the edge of the seat-frame.

As represented, the leg-rests D E when either are used as foot-rests may be arranged so as to align on their top surface with the leg-supports, if desired, and when they are in position, as shown in Fig. 1, with the back C′ rearwardly inclined a comfortable couch-like seat is afforded, which can quickly be adjusted to assume a proper position for sitting upright or at other degrees of inclination that are intermediate of those mentioned.

While the rod c^3 has been shown and described as located on the chair-back C′, it is not desired to restrict it to such location, as it may be supported to slide on the frame of the chair or in a slot of the same and obtain a satisfactory movement of parts, so as to permit the chair-back to be moved in the manner herein specified.

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

1. The combination, with a seat-frame having transverse stretcher-bars that are shaped to be engaged by ratchet-teeth on curved bars, of two leg-rests cushioned on one side, two bail-hangers pivoted to the seat-frame and also pivoted oppositely on the edges of the leg-rests near their centers of length, a curved ratchet-cut bar for each leg-rest, and rack-cut plates secured on the legs of the seat-frame, which may be engaged by the edges of the leg-rests to support them as foot-rests when said leg-rests are revolubly moved, substantially as set forth.

2. The combination, with a seat-frame having arm-rests, and a rectangular back-frame, the top and bottom cross-bars of which are vertically perforated near their centers, of a rounded standard that engages the perforations of the back-frame, a rocking segment-piece, on which the standard is pivoted to swing, a supporting bracket-frame below the seat-frame, on which the segment-piece is pivoted to rock, and an adjustable device which will interlock with the lower end of the standard and hold it secured to the segment-piece, substantially as set forth.

3. The combination, with a seat-frame having arm-rests, a rectangular back-frame cushioned on one side, and a rounded standard that is loosely engaged by the back-frame for revoluble movement of said back-frame, of a bracket-stand below the seat-frame, a segment-piece pivoted to rock on the bracket-stand, a locking-plate on the segment-piece, which may be moved vertically, and lever

mechanism that is adapted to slide the locking-plate and lock or release the lower end of the standard, substantially as set forth.

4. The combination, with a seat-frame having arm-rests and leg-supports, a bracket-stand below the seat-frame, and a segment-piece pivoted on the bracket-stand, so as to rock parallel to the seat-arms, and having an arched locking-plate loosely secured to one side near its lower end, which plate is provided with spaced notches in its upper surface, of a standard that is rounded to engage perforations in the cross-bars of a back-frame, and also adapted to have sliding interlocking engagement with the notches of the segment-plate, means to slide the segment-plate vertically, and an upholstered back-frame, which may revolve or rest on the seat-frame, substantially as set forth.

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Witnesses:
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