

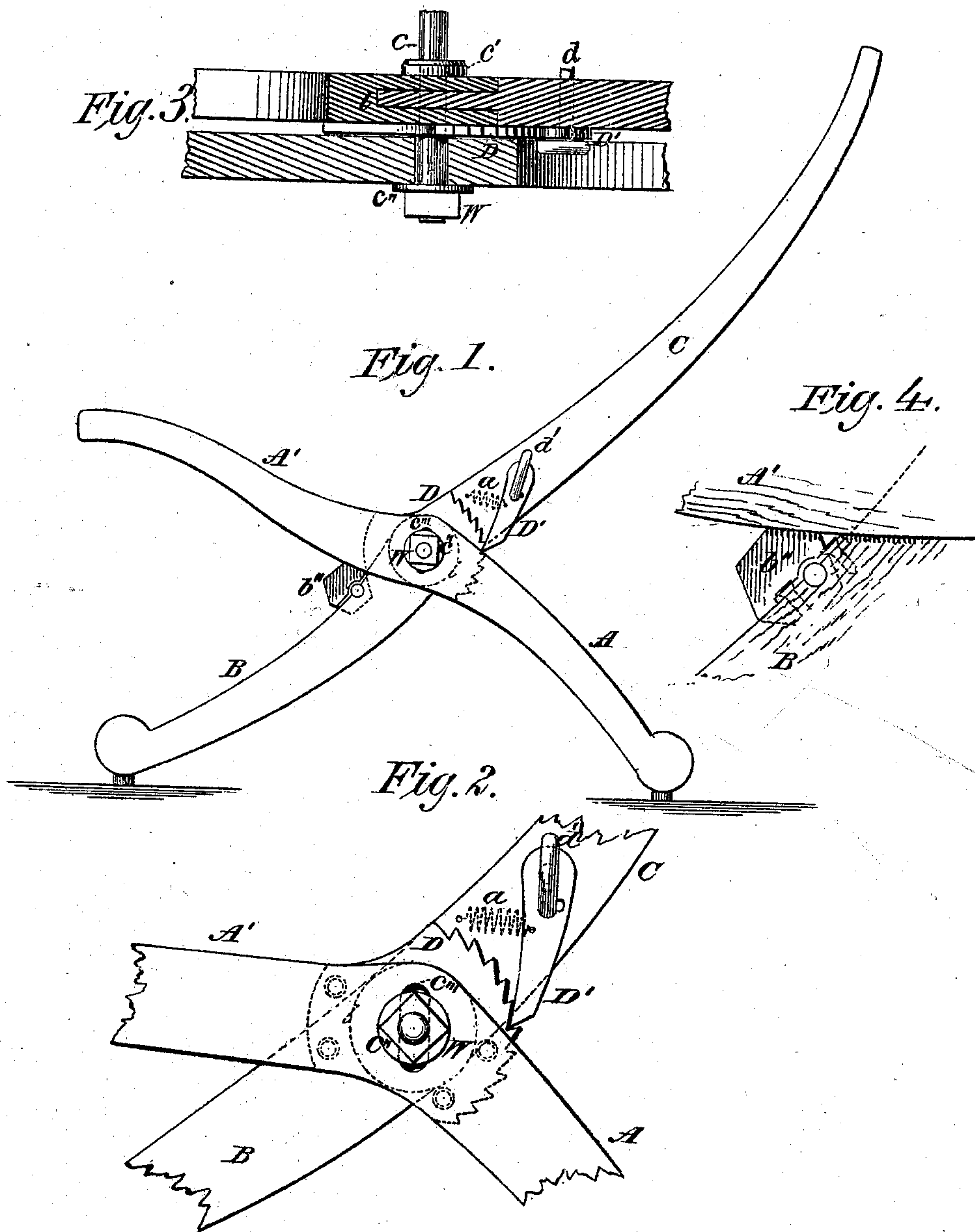
(No Model.)

F. G. JOHNSON & J. H. HAYWARD.

ADJUSTABLE STEAMER CHAIR.

No. 271,857.

Patented Feb. 6, 1883.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FRANK G. JOHNSON, OF BROOKLYN, AND JOHN H. HAYWARD, OF NORTH-FIELD, NEW YORK.

ADJUSTABLE STEAMER-CHAIR.

SPECIFICATION forming part of Letters Patent No. 271,857, dated February 6, 1883.

Application filed July 25, 1881. (No model.)

To all whom it may concern:

Be it known that we, FRANK G. JOHNSON and JOHN H. HAYWARD, citizens of the United States residing respectively in the city of Brooklyn, in the county of Kings and State of New York, and at Northfield, in the county of Richmond and said State of New York, have invented new and useful Improvements in Folding Steamer-Chairs, of which the following is specification.

The object of our invention is to increase the convenience and comfort of travelers upon ocean, river, and other steamers by providing a chair of such a peculiar construction that it can be readily adjusted to different-sized persons and be put into any position, so that its occupant can either sit upright or recline in it to any desired angle, from an upright to a horizontal position.

Figure 1 is a general side view; Fig. 2, an enlarged side view of the central portion of the chair; Fig. 3, an enlarged horizontal section of the central part of the chair; Fig. 4, an enlarged view of the end of the supporting-bar of the seat.

Our invention relates to that class of folding chairs consisting of the X frame or form; and the peculiarities of improvements relate, first, to the method of adjusting the height of the seat of the chair; second, to the means of regulating the pitch or slant of the seat without necessarily changing the inclination of the back; and, third, to the method of changing the slant of the back independently of varying the height or pitch of the seat. These several peculiarities of our improvements are described as follows:

A is one of the back legs, and A' is one side of the seat-frame, consisting of one piece of wood. B is the corresponding front leg. C is one side of the back, which is joined to the front leg, B, by a tongue-and-groove joint, as shown at *b* in Fig. 3. These three pieces A A' B, and C are joined together by and swivel on the axle *c*, Fig. 3.

Between B C and A A' is provided a ratchet-plate, D, which is fastened by screws or other suitable means to the piece A A'. The axle *c* also passes through this ratchet-plate.

Upon the axle *c* is a broad shoulder, *c'*, and upon the end of the axle is also a washer, *c''*, and a nut, W.

The pieces A A' B C and ratchet-plate D are all firmly clamped together to form a suitable friction action by binding them between the shoulder *c'* and washer *c''* and nut W.

The seat is rendered adjustable in height by means of a slotted hole, *c'''*, Figs. 1 and 2, through and up and down which the axle *c* passes, thus permitting it (the axle *c*) to be placed higher or lower within the scope of the slotted hole *c'''*. When the axle is placed vertically in any desired position in this slotted hole it is held in its position by tightening up the nut W.

To provide for the adjustment of the seat A' to give it any desired pitch, and so to adapt it to the greater or less inclination of the back C, and also, if desired, to maintain the same pitch of the seat when it is raised or lowered by varying the vertical position of the shaft *c*, the fulcrum or supporting bar *b''*, Figs. 1 and 4, is provided with or made in the form of a polygonal eccentric where the side rails of the seat A' rest upon it.

The object of making the eccentric polygonal instead of circular in form is to prevent it from turning by the pressure of the seat.

When it is desired to elevate or increase the pitch of the seat the eccentric *b''* is turned so that one of its sides more distant from the center of its motion will come under and in contact with the arms A' A' of the seat, and vice versa where it is desired to lessen the pitch of the same. The bearings of the shaft on which is placed or formed the eccentrics are made by partially sinking them into the legs B B, and securing them thereto by suitable caps or brackets. (Seen in Fig. 4.) The variation of the pitch and elevation of the seat does not change the inclination of the back C.

The side C of the back is connected with the front leg, B, forming therewith a tongued-and-grooved joint, through which passes the axle *c* to hold them together, and upon which they move. This joint, though tightened up transversely by the nut W, the back C can be moved backward and forward, thus enabling

the occupant of the chair to change its inclination without changing the height or pitch of the seat.

The means employed to hold the back in any desired position are a pawl and ratchet. The ratchet D is securely fastened to the inner side of the piece composing the leg and seat-arm A and A', and the pawl D' is fastened to the back C. To keep the pawl in the ratchet a small concealed spring, *a*, or any other suitable spring, is attached—one end to the back C and the other to the pawl D'. There are of course two ratchets and two pawls—one on either side of the chair—and in order that both pawls may be simultaneously and conveniently operated by one hand and on one side of the chair they (the pawls) are connected together by and worked upon a common shaft, *d*, Fig. 3, which extends across the back of the chair. On one end of this shaft is provided a small handle, *d'*, Figs. 1 and 2, for unlatching the pawls D' D'.

Should the occupant of the chair desire to bring the back into a less reclining position, it is only necessary to lean forward and draw it toward him to the desired position. Should a greater inclination be desired, it is only necessary to displace the pawls D' D' from the ratchets D D by means of the handle *d'* and lean back to the desired position and let go of the handle. Both of these operations can be performed without the occupant rising from the chair.

By the means above described of constructing a folding chair in the simple form of an X we obtain all the advantages of varying the

seat and back independently of each other, so as to form an upright or a horizontally-reclining chair, and yet retain all the advantages of its closely-folding qualities, which, for steamer use, is indispensable to save stowage room.

We are aware that chairs have been made with adjustable backs supported by pawl and ratchet; also that folding chairs of the X form have been made with adjustable backs, in which the seat and back are continuous, as in the patent granted to R. T. White, March 29, 1881. We are aware, also, that rigid chairs have been made in which the front edge of the seat can be raised and lowered by supports of different lengths, as in the English patent granted to William Alston in 1875, and numbered 171. Therefore we do not claim broadly any of these features; but

What we do claim, and desire to secure by Letters Patent, is—

1. The combination of the leg and seat, frame A A', having slots *c'''*, the leg and back-frame B C, the axle *c*, and its clamp-nut and washer W *c''*, substantially in the manner and for the purposes described.

2. In a folding chair consisting of an X-frame, the polygonal eccentric cross-bar support *b''*, resting on the legs B B, near to the axle *c*, forming the fulcrum for the support of the seat-frame A', substantially in the manner and for the purpose set forth.

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Witnesses:

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