(No Model.)

T. J. COLLINS.

TILTING CHAIR.

No. 418,687. Patented Jan. 7, 1890.

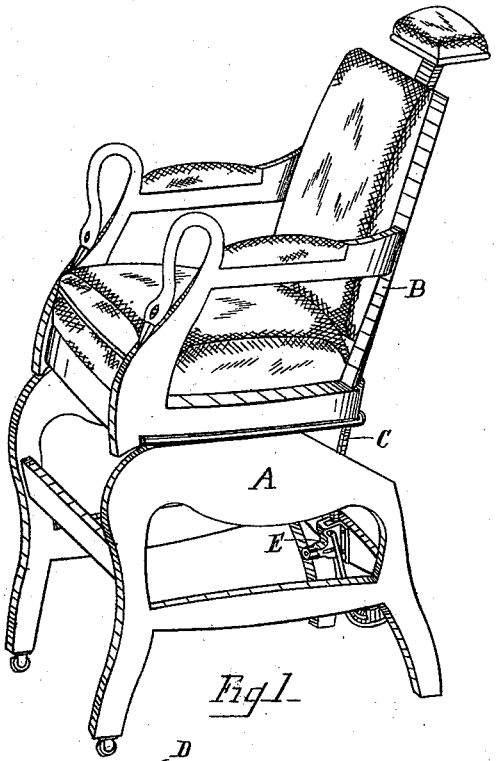

Fig 1.

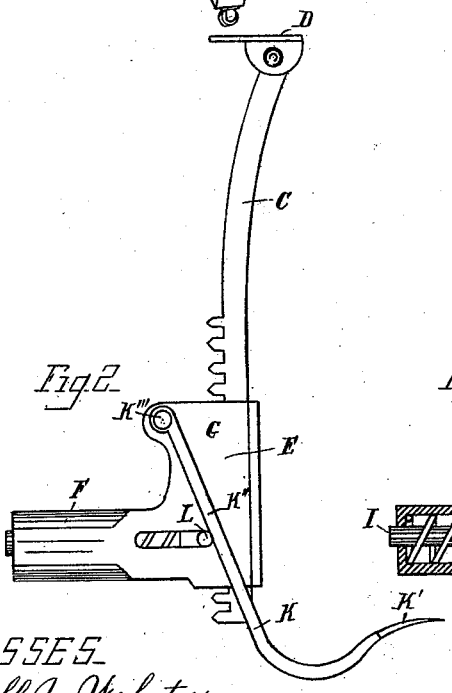

Fig 2.

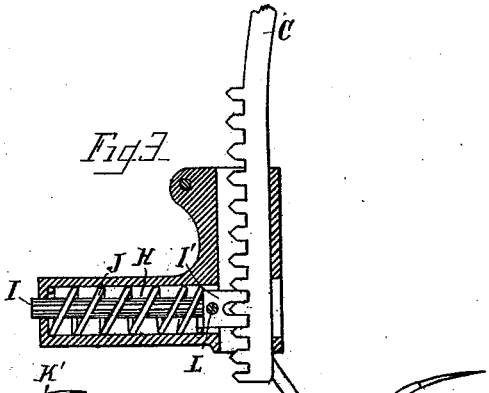

Fig 3.

WITNESSES.
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UNITED STATES PATENT OFFICE.

TIMOTHY J. COLLINS, OF TOLEDO, OHIO, ASSIGNOR OF TWO-THIRDS TO JOHN R. B. RANSOM AND THADDEUS F. RANDOLPH, BOTH OF SAME PLACE.

TILTING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 418,687, dated January 7, 1890.

Application filed November 30, 1888. Serial No. 292,220. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY J. COLLINS, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Tilting-Chairs; and I do hereby declear that the following is a full, clear, and exact description of the invention, which 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 of reference marked thereon, which form part of this specification.

My invention relates to tilting-chairs of that character in which the seat, back, and head-rest are adapted to be tilted upon the base-support, as commonly used by barbers, dentists, &c., and has especial reference to means for supporting the tilting portion of the chair at any desired adjustment.

The object of the invention is to provide a rack-bar and catch for co-operation with the movable portion of the chair that shall not only lock the same in any desired position, but in such manner that the rack-bar shall move in the necessary arc of a circle described by the movement of the seat from its pivotal connection with the base-support, so as to be at all times in proper position within the catch to insure a ready engagement therewith.

A further object is to provide a certain as well as simple catch that shall be convenient of manipulation by the foot of the operator from his position by the side or in rear of the chair.

The invention consists in the parts and combination of parts hereinafter set forth, and pointed out in the claim.

In the drawings, Figure 1 is a perspective view of a complete chair provided with a rack-bar and catch. Fig. 2 is a side elevation of the rack-bar and catch, and Fig. 3 is a longitudinal vertical section of the same.

A designates the base-support of the chair of any preferred design, and B the tilting portion of the chair, consisting of the seat, back, and head-rest, the whole arranged in the usual manner.

C designates a rack-bar pivotally connected at the upper end with a plate D, adapted to be attached to the seat-frame, preferably to the under side thereof, and depend therefrom vertically.

E designates a spring-catch frame consisting of a tubular portion F and an angular portion G, having a rectangular opening extending vertically through the same, and into which the lower portion of the rack-bar slides.

H designates a catch formed with a stem I, having an enlarged end I′, preferably bifurcated to form projections for engagement with the teeth of the rack-bar, the catch being normally projected into engagement therewith by means of a coiled spring J, surrounding the stem I and confined within the tubular extension.

K designates a lever having a foot-rest K′ and arms K″, pivoted at K‴ to the angular extension G of the catch-frame, said arms moving in close contact with the outer sides of the frame and engaging with a transverse pin L, passing through the enlarged end I′ of the catch.

In operation, when it is desired to tilt the upper portion of the chair, lever K is moved in the arc of a circle by means of pressure exerted upon the foot-rest K′ by the foot of the operator, thereby retracting the catch by reason of arms K″ pressing against pin L and contracting spring J in harmony with the movement of the catch, permitting the rack-bar to move either down or up as the seat may be moved, and when the desired position is obtained the rack-bar is locked from movement by removing pressure from the foot-rest and permitting the spring to urge the catch into engagement with the rack-bar. It will be observed that the upper portion of the rack-bar is slightly curved, thereby at all times causing the lower portion (by reason of the pivoted attachment of the bar with the tilting frame) to always move in a vertical line within the catch-frame.

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

In a chair, the combination, with a base-support and tilting frame, of a rack-bar secured to said frame, a catch-frame secured to the base-support, formed with a vertical rectangular apertured portion adapted to receive the rack-bar and a horizontal tubular portion

formed integral with the vertical portion, a spring catch or pawl carried within the tubular portion, adapted to hold the rack-bar in position, a laterally-projecting pin carried at the forward end of the pawl, a longitudinal slot formed in the side of the catch-frame, adapted to receive the projecting pin, and a foot-lever pivoted to the side of the catch-frame, adapted to bear at the central portion against the pin and throw the pawl out of engagement, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

TIMOTHY J. COLLINS.

Witnesses:
WILLIAM WEBSTER,
CARROLL J. WEBSTER.