(No Model.)

A. NAUTS.

VERTICALLY ADJUSTABLE SEAT FOR STOOLS AND CHAIRS.

No. 449,689. Patented Apr. 7, 1891.

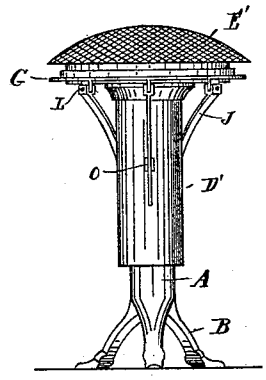


Fig. 1.

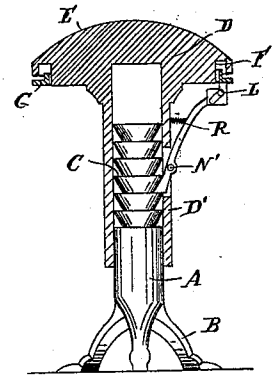


Fig. 2.

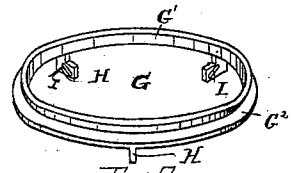


Fig. 3.

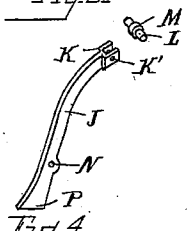


Fig. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

ALFRED NAUTS, OF TOLEDO, OHIO.

VERTICALLY-ADJUSTABLE SEAT FOR STOOLS OR CHAIRS.

SPECIFICATION forming part of Letters Patent No. 449,689, dated April 7, 1891.

Application filed April 2, 1890. Serial No. 346,335. (No model.)

To all whom it may concern:

Be it known that I, ALFRED NAUTS, 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 Vertically-Adjustable Seats for Stools and Chairs; and I do hereby declare 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 a part of this specification.

My invention relates to vertically-adjustable seats for stools and chairs; and it has for its object to provide means for adjusting the seat to any desired height and to allow of the same being revolved upon the standard without varying the height of the seat.

A further object is to provide a section to the adjustable seat of a stool or chair that shall inclose the standard and adjusting mechanism, thereby presenting a finished appearance.

The invention consists in the parts and combination of parts hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a stool having an adjustment in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a plan view of the seat-ring, and Fig. 4 is a detail view of one of the dogs for sustaining the seat.

Heretofore in the construction of vertically-adjustable seats to piano-stools, office-chairs, &c., it has been usual to employ a screw secured to the bottom of the seat and running into or through a nut in the foot or base of the same. This construction is objectionable in several particulars, first, the constant weight upon the threads of the screw and nut soon wear the same to a degree to cause the screw to wabble in the nut and cause the seat to have a disagreeable swinging motion; second, it is necessary in these constructions for the occupant to leave the seat and revolve the same to adjust to the desired height, and, finally, the screw and nut are unsightly. I have overcome these objections in the construction shown by dispensing with the screw and providing for raising or lowering the seat vertically without revolving the same and have provided for incasing the unsightly parts, to cause the stool or chair to have an ornamental finish.

A designates the vertical standard, supported by legs B and formed with annular shoulders C along the length thereof the distance it is desired to raise the seat.

D designates the upper section of the stool, formed with a tubular portion D′, adapted to telescope the standard and slide vertically thereon, the upper portion of the section being enlarged to form a seat E, of any desired form, it being understood that while I have chosen a stool for the purpose of illustration the invention applies equally well to chairs or vertically-movable seats of any character, the novelty being in the means provided for raising and lowering the same and for allowing a revolution of the seat upon the standard without varying the adjustment vertically.

The seat E is provided with means for securing any desired form of upholstery E′ thereto, which preferably overlaps a cylindrical portion F, upon which a ring G slides freely. Ring G is formed with an annular portion G′ and a flange G^2 at right angles thereto to give greater strength to the same, thereby permitting of forming the ring of a minimum lightness with a maximum strength, there being a series of right-angled hangers H, (preferably three) formed integral with and depending from the under side of the right-angled portion G^2, each hanger being formed with an inclined slot I, the downward inclination thereof tending toward the standard.

J designates a series of dogs, one being movably secured to each hanger. Each dog is formed with bifurcated end K, adapted to receive a hanger H and be secured thereto by means of a transverse pivot L, passed through perforations K′ and the slot I, and preferably, though not necessarily, provided with an anti-friction roller M upon that portion movable within the slot. From the bifurcated portion K the dog is slightly curved inwardly and formed with a perforation N near the lower end, which receives a pivot N′, having a bear-

ing in ears O, formed integral with the tubular portion D, the dogs being formed with an inwardly-projecting base P, adapted to rest squarely upon the horizontal face of the shoulder C and thereby sustain the seat in the desired adjustment by reason of the dog being pivotally connected with the tubular portion D′ at O, from which point the upper section of the stool is sustained.

The weight of the section D of the stool upon the dogs causes the outer ends to bear outwardly, with the pins L riding up the inclined slots I and depressing the ring G and distending spiral spring R, secured to the portion D′ and to the dog.

I will now describe the operation of adjusting the seat upon the standard. To withdraw the dogs from engagement with the shoulders C the occupant of the stool or chair grasps the ring G at approximately opposite points and raises the ring, thereby causing pins L to ride down the slots I, the springs R also assisting in urging the upper portion of the dog toward the standard and thereby withdrawing the base P from the shoulder C and permitting the telescopic tubular portion to be raised or lowered at will, when upon releasing the ring G, it will descend by gravity sufficiently to throw the base of each dog into engagement with the shoulder, thereby securing the seat in the desired adjustment.

It will be seen that the tubular portion entirely conceals the dog and shoulders upon the standard and that the stool presents a neat and finished appearance.

The dogs being the only portion subjected to wear or strain can be replaced when worn.

What I claim is—

1. In combination with a standard formed with engaging devices, a tubular section adapted to fit over the same and formed with an upper enlarged circular portion, a ring movable upon the enlarged portion, and catches movably secured to the ring and pivotally connected with the tubular portion and adapted to engage with the engaging devices on the standard, as and for the purpose set forth.

2. In a stool or chair, a vertical standard formed with projections upon a portion thereof, a seat movably secured upon the standard, catches pivotally connected with the seat-section and engaging normally at one end with the projections, a ring upon the seat-section formed with hangers having inclined slots, pins passed through the slots and the catches, and a spring connected with the catch and seat-section, as and for the purpose set forth.

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

ALFRED NAUTS.

Witnesses:
WILLIAM WEBSTER,
ANNA J. LEHANEY.