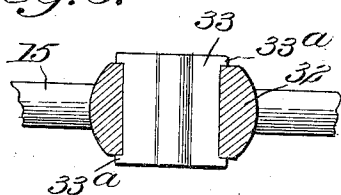


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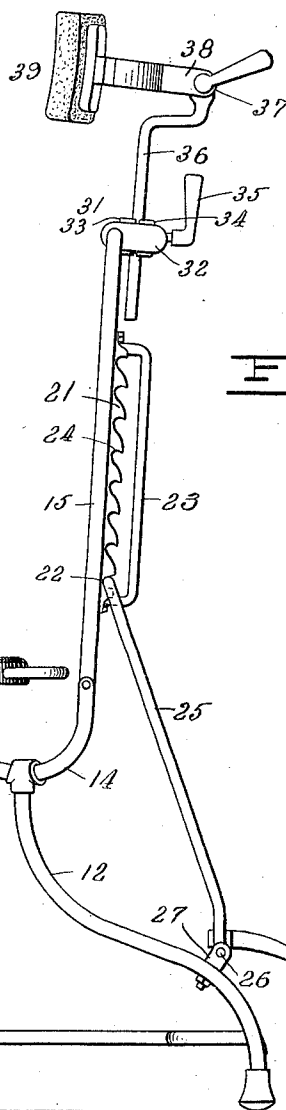
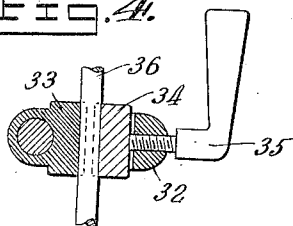
Fig. 2.

This side view shows the handle 35 pivoted to the frame 34. The cylinder 33 is mounted on the frame, and the rollers 15 and 15a are positioned to feed material into the machine. A cross-hatched circle on the cylinder indicates a specific feature or adjustment.

Fig. 3.



II-19.4



George L. Poll.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE L. POLL, OF BROOKLYN, NEW YORK.

SPECIALIST'S CHAIR.

1,029,315.

Specification of Letters Patent.

Patented June 11, 1912.

Application filed October 31, 1911. Serial No. 657,902.

To all whom it may concern:

Be it known that I, GEORGE LEWIS POLL, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Specialists' Chairs, of which the following is a specification.

My invention relates to improvements in chair structures, particularly adapted for use by specialists, and in which portions are connected together in a manner to provide articulation between the parts for the purpose of adjustment to meet service conditions.

The principal object of the invention is to provide an improved head rest support which shall be capable of universal adjustment and which shall, at the same time, be extremely simple and comprise a minimum number of parts.

Another object is to provide an all metal chair having a swinging back provided with means for supporting the same in any one of a plurality of positions.

Other and further objects of the invention are to provide a structure of skeleton type, which is neat and attractive in appearance, durable in construction, simple and efficient in operation, entirely under the control of the operator, which can be readily cleansed, and which can be manufactured at a relatively low cost.

To these and other ends, the nature of which will be readily understood as the invention is hereinafter disclosed, the said invention consists in the improved construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views,—

Figure 1 is a side elevation of the preferred embodiment of my invention, the back being shown in its normal position; Fig. 2 is a detail plan view on an enlarged scale of my improved head rest clamp, the supporting shank being shown in section. Fig. 3 is a transverse section on the line 3—3 of Fig. 2; and, Fig. 4 is a section at right angles to Fig. 3 taken substantially on the line 4—4 of Fig. 2, parts being shown in elevation.

The base or supporting frame of the chair,

indicated generally as 10, is preferably formed with four leg-members preferably shaped as shown in the drawings, each being curved in the direction of its length, the forward members 11, having their upper ends secured in suitable manner to a casting 13, preferably in the form of a hub interiorly screw threaded, and having an annular flange to which the leg-members are secured, the rear leg-members 12, each having its upper end coupled to an arm or member 14 secured to the casting 13, and projecting rearwardly, the back 15 being pivotally secured to the rear ends of the members 14, as presently described. The leg-members 11 and 12 are preferably connected together by a brace 16 of double-Y formation.

The seat, indicated as 17, is preferably formed dish-shaped, with the annular flange projecting downwardly, and has its under face provided with a suitable screw threaded member 18, which is adapted to fit the threads of the casting 13, to provide for vertical adjustment of the seat. The seat is preferably also provided with a plurality of grasping loops 19, secured to the outer periphery of the flange of the seat by any suitable means. These grasping loops permit a grasping action by the patient when desired, and also form a ready means for rotating the seat to adjust it.

The back 15 is preferably shaped as shown in the drawings, and is provided with reinforcing bars or plates, to the central one of which is secured a rack 21, said rack being located on and extending longitudinally of the rear face of said center plate. The back is pivotally connected to the members 14 preferably in the manner shown in the drawings, wherein the opposing parts are preferably cut-away so as to permit connection by a suitable pin or rivet, which extends through the opposing parts, this construction providing sufficient strength for the connection without enlarging the size of the parts to any material extent, thereby retaining the neat appearance of the chair generally.

The rack 21 is provided with a plurality of notches, one of which differs in shape from the remainder, said single notch, indicated as 22, having a configuration which, when coöperating with the latch or loop member 23, acts to lock the back against movement, the remaining notches 24, having a configuration which will prevent a

swinging movement of the back in one direction when the member 23 is positioned therein, but permit the back to swing freely in the opposite direction.

5 I preferably provide a guard member 25, between which and the rack, the latch or loop member is located. The latch or loop member is preferably carried on a rod 26 mounted in ears 27, secured on the rear
10 leg-members 12. The loop member is provided with a foot-piece 30, by means of which the operator can move the upper end of the loop to disengage it from a notch by pressure placed on the foot-piece.

15 As will be seen, the configuration of the notch 22 is such that when the loop member 23 is engaged therein, the walls of the notch will act to prevent any movement of the back on its pivot while the loop member re-
20 mains in position, the curvature of the notch 22 being on radii other than that of which the pivot point of the back would serve as the center, the radius for the upper portion of the notch being that which has the axis
25 of the rod 26 as the center. With this engagement, there can be no accidental movement of the back on its pivot, regardless of the amount of pressure placed thereon. As
30 will be obvious, however, the upper wall of the notch 22 will permit the loop member to be withdrawn upon application of pressure to the foot-piece 30, the withdrawal of
35 the loop member from said notch permitting the back to be lowered in an obvious manner. It should be noted, however, that while the loop member may be disengaged
40 from this notch by pressure applied on the foot-piece, the application of pressure on the back itself will not force said member from the notch. The remaining notches 24
45 have their walls of a different configuration, as heretofore stated, and the upper wall of each notch is so formed as to provide a projection within the path of movement of
50 the loop member 23, in a direction to disengage said loop member if an attempt be made to actuate the latter by pressure on the foot-piece when the member is engaged
55 with either of the notches 24; to disengage the member 23 from a notch 24, it is necessary to raise the back a sufficient distance to remove the projecting portion of the wall out of the path of movement of the member
60 23 before the latter can be withdrawn to permit the back to be lowered to a greater distance. As will be obvious, the back can be freely raised without requiring a movement of the member 23, by the foot-piece, the member 23 simply riding over the face
65 of the rack until it enters the notch 22, whereupon the parts are locked in position. There is a particular advantage resulting from this arrangement of parts. When the back is in its vertical position, the patient

sure on the back, so that accidental pressure on the foot-piece would not be liable to injure the patient by a sudden dropping of the back, due to a withdrawal of the loop member from the notch 22; should the pa-
70 tient lean backward onto the back while in this position, the pressure so provided would offer a sufficient resistance to a movement of the loop member to disengage it from the notch as would practically prevent such dis-
75 engagement. Obviously, therefore, since, with the parts in the position shown in Fig. 1, the patient is in position to readily release the pressure on the back, the operator may provide the engagement of parts by
80 depressing the foot-piece without affecting the patient. After the member 23 has been disengaged from the notch 22, the patient, by resting upon the back, follows the latter into a lowered position, in which position
85 the member 23 engages one of the remaining notches 24. In this position the patient is practically helpless, so that it is vital that there can be no possible movement of the back in a lowering direction at this time, and
90 this is prevented by reason of the configuration of the notches 24, which absolutely prevent any disengagement of the member 23 from a notch, while the patient is reclining
95 excepting it be by the operator who must first raise the back a distance sufficient to permit release of the member 23. This prevents any accidental movement of the back toward a lowered position; obviously, a
100 movement in the opposite direction would be by the operator and would not affect the patient.

As will be readily understood, the length of pivotal movement of the loop member 23 is limited by the guard member 25, against
105 which the loop member may ride when released from a notch. As will be understood, the application of pressure on the foot-piece when the latch or loop member is in contact with the guard member 25 will tend to move
110 the back on its pivots in a direction to lower it.

The top of the frame of the back, approximately its center, is reduced in thickness to receive a clamp structure 31, adapted to carry the head-rest. Said structure
115 comprises a substantially U-shaped frame 32, having perforations adjacent its free ends, and through which perforations the reduced portion 15^a (see Fig. 2) of the frame of the back is adapted to extend.
120 Mounted on said reduced portion intermediate the legs of the frame 32 is a relatively fixed jaw member 33, the mounting of said member on the reduced portion being sufficiently loose to permit of a slight
125 relative movement between the frame 32 and the member 33 in the direction of length of the legs of the frame 32, the member 33 being formed to overlap the legs of frame 32 as indicated at 33^a, to position the jaw
130

within the frame, said overlapping portions serving as guides to restrict the movement of the jaw member 33 to a substantially single plane with respect to the frame 32.

5 Between the bridge of the frame 32 and the member 33 is a movable jaw member 34, having a similar overlapping relation to the frame 32, said jaw members 33 and 34 having opposing recesses adapted to receive the shank 36 of the head-rest. Mounted within the bridge of the frame 32 is a set screw 35 having a handle by means of which a sliding movement may be given to the jaw member 34.

15 When the shank is positioned within the clamp structure, the opposing jaw members 33 and 34 will be in clamping relation to the shank, this relation being provided by setting the screw 35, which action results in forcing the movable jaw member into contact with the shank, and the shank in turn into contact with the jaw member 33, a tightening of the screw 35 serving to provide a relative movement of the frame 32 and member 33, so as to cause said frame and member to frictionally engage the reduced portion of the frame of the back to retain the parts in adjusted position. As will be readily understood, a release of the set screw releases the frictional engagement with the reduced portion of the frame of the back, and at the same time releases the clamping effect of the jaws, with the result that the clamp structure may be swung on said reduced portion, and at the same time the shank may be adjusted within the jaws in the direction of length of the shank, a setting of the screw 35 when the parts are in the desired position, securing the entire structure in the desired adjusted position.

As seen in Fig. 1, the shank 36 is formed with an offset adjacent its upper end, and has said upper end provided with a screw threaded opening, the threads of which cooperate with the threads of a securing member 37, having a handle, said member passing freely through an extension 38 of the head-rest 39. This construction permits of adjustment of the head-rest with the shank as an axis to swing the head-rest laterally, or in directions in which the securing member 37 acts as the axis, the shank being swung around to present the upper end thereof either in front or in rear of the axis of the shank. As will be understood, this construction provides for a number of adjustments of the head-rest giving practically the effect of a universal connection.

I preferably make use of elastic feet for the lower ends of the leg-members 11 and 12.

As will be readily seen from an inspection

of the drawings, the entire structure is substantially free from the employment of heavy and unsightly castings, the particular arrangement of parts and their connection with each other being such as to give the chair a neat and attractive appearance, inclined rather to delicacy than to massiveness, and at the same time provides for durability, strength, minimum weight and a simple and efficient operation.

While I have herein shown and described one embodiment of my invention, I am aware that changes and modifications therein may be desired and required by the exigencies of use and I, therefore, reserve the right to make any and all such changes and modifications as may be desired or become necessary, so long as they may fall within the spirit and scope of the invention as set forth in the accompanying claims.

Having thus described my invention, what I claim as new is:—

1. The combination with a chair frame, of a clamping device adapted to be secured thereto, said device comprising a substantially U-shaped member having aligned openings near the free ends of the legs thereof through which the chair frame is adapted to pass, a jaw member disposed between the said free ends of such U-shaped member, said jaw member being constructed to engage the chair frame, a second jaw member arranged between the legs of said U-shaped member adjacent the bend thereof, said jaw members having opposing clamping faces, a shank disposed between said faces and adapted to be gripped thereby, and a set screw mounted in the bend of the U-shaped member and adapted to engage said second jaw member, whereby, upon tightening said screw, both of said jaw members are moved relatively to said U-shaped member, and clamping of the parts produced.

2. In a device of the class described, the combination with a chair back frame, of a head rest clamping device mounted thereon, said frame being formed adjacent its center with a reduced portion, and said clamping device comprising gripping members adapted to engage such reduced portion, whereby said clamping device is prevented from moving longitudinally of said frame, while free to turn thereon.

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

GEORGE L. POLL.

Witnesses:

E. M. THOET,

E. S. MURDOCH.