

(No Model.)

4 Sheets—Sheet 1.

J. M. DOW.
PHOTOGRAPHIC POSING CHAIR.

No. 566,382.

Patented Aug. 25, 1896.

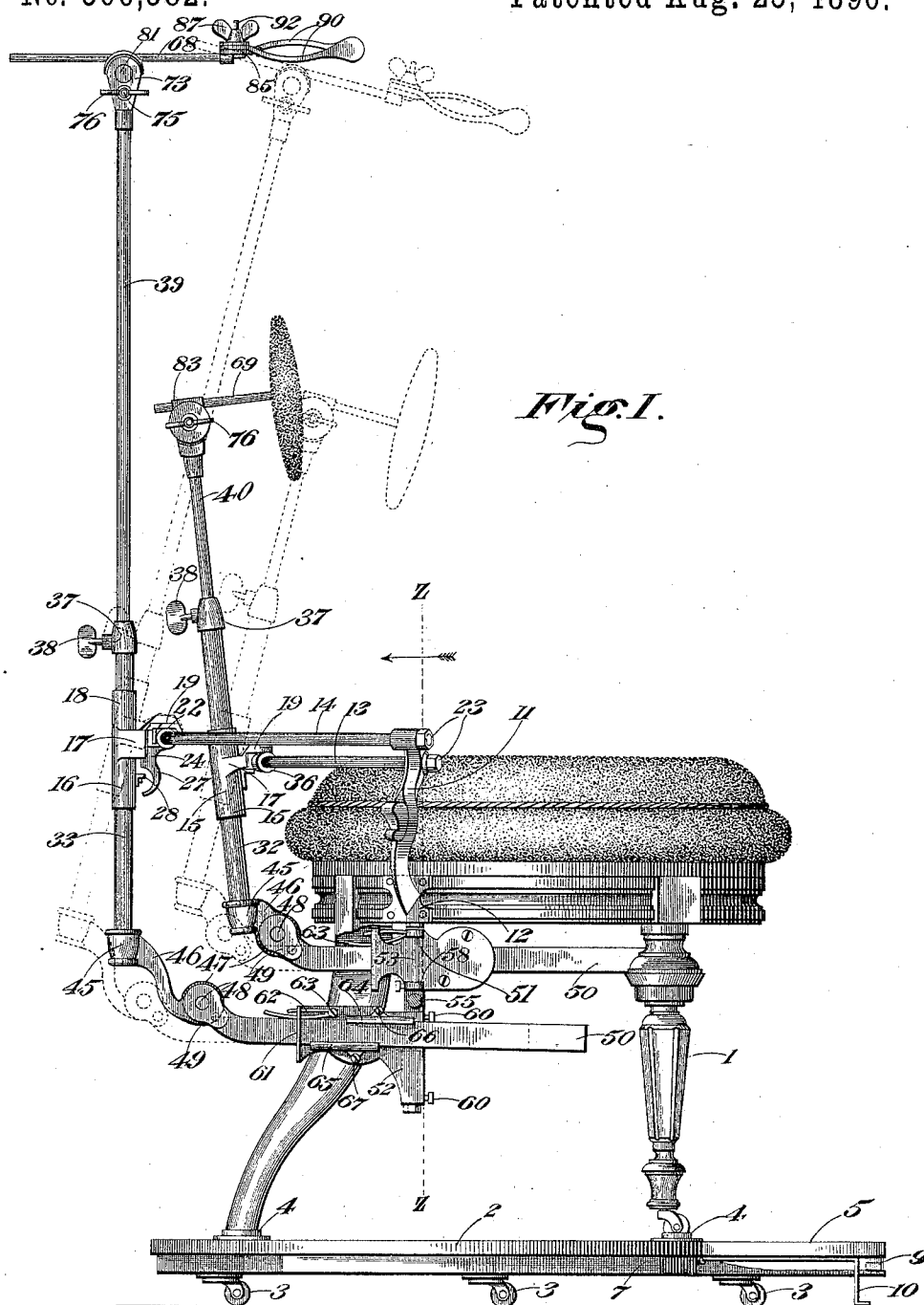


Fig. 1.

Witnesses:

M. E. Fowler
Louis G. Julihn

Inventor:

James M. Dow

By Joseph B. Atkins
Atty

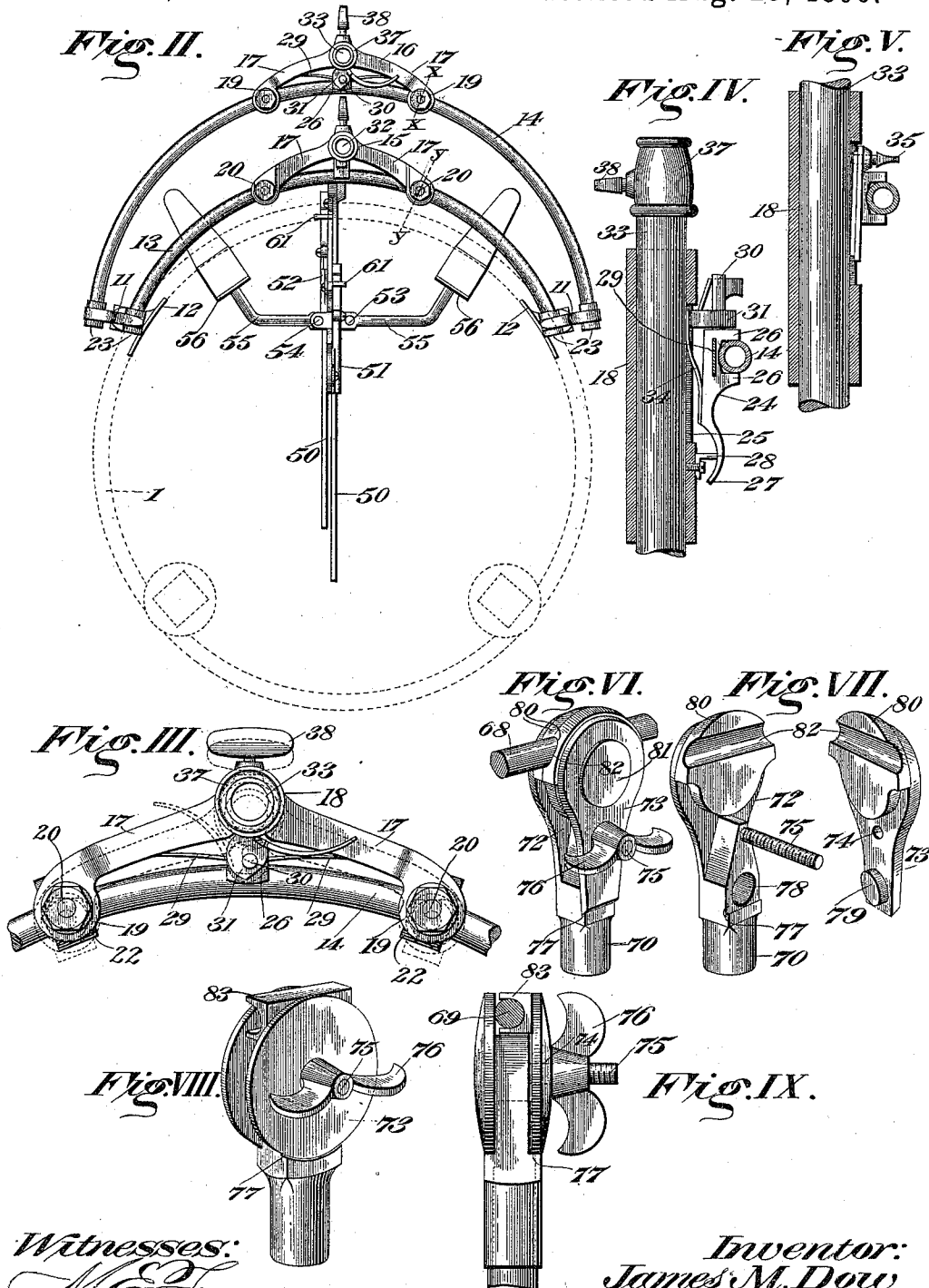
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4 Sheets—Sheet 2.

J. M. DOW.
PHOTOGRAPHIC POSING CHAIR.

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Witnesses:
M. C. Fowler
Wm. J. Gulik

Inventor:
James M. Dow
By Joseph L. Atkins
att.

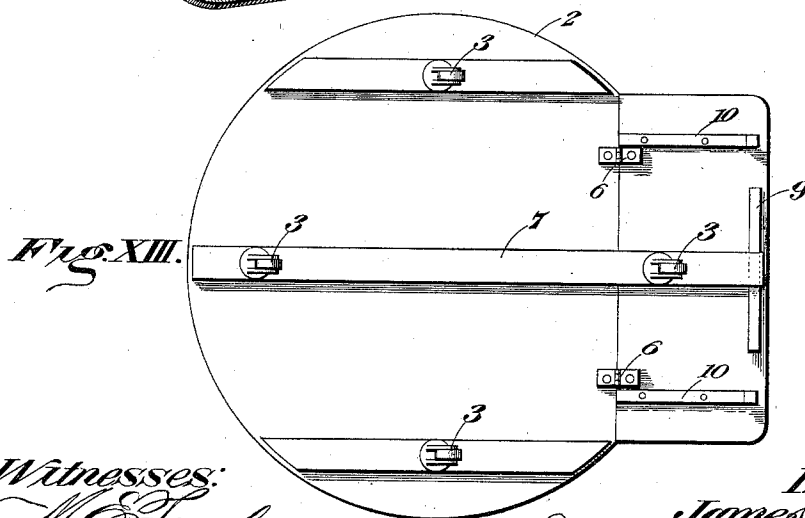
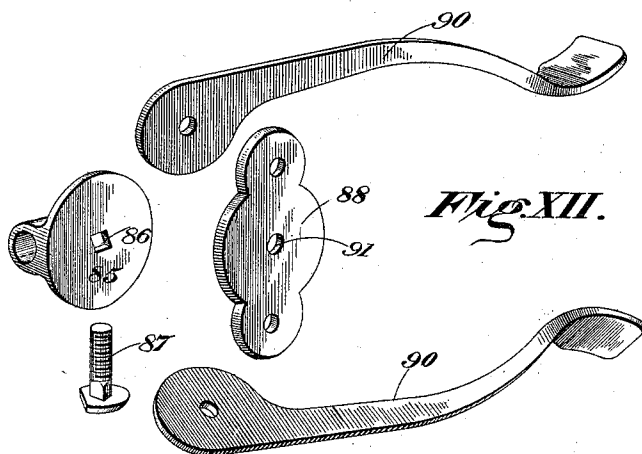
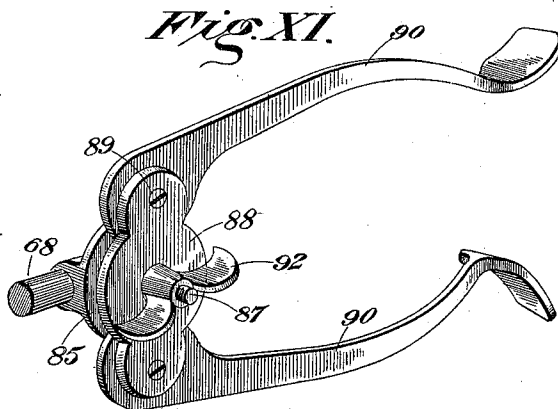
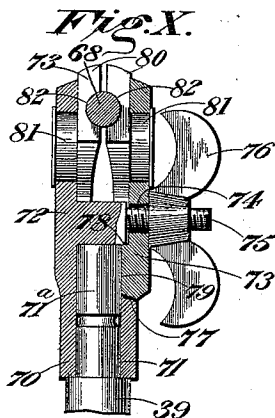
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Patented Aug. 25, 1896.



Witnesses:
McFauler
and
Julien

Inventor:
James M. Dow
at

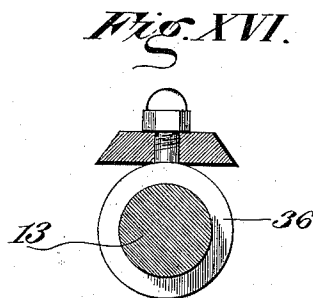
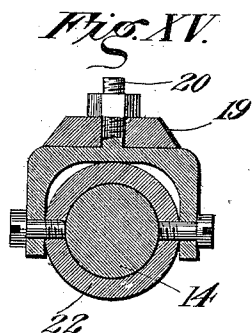
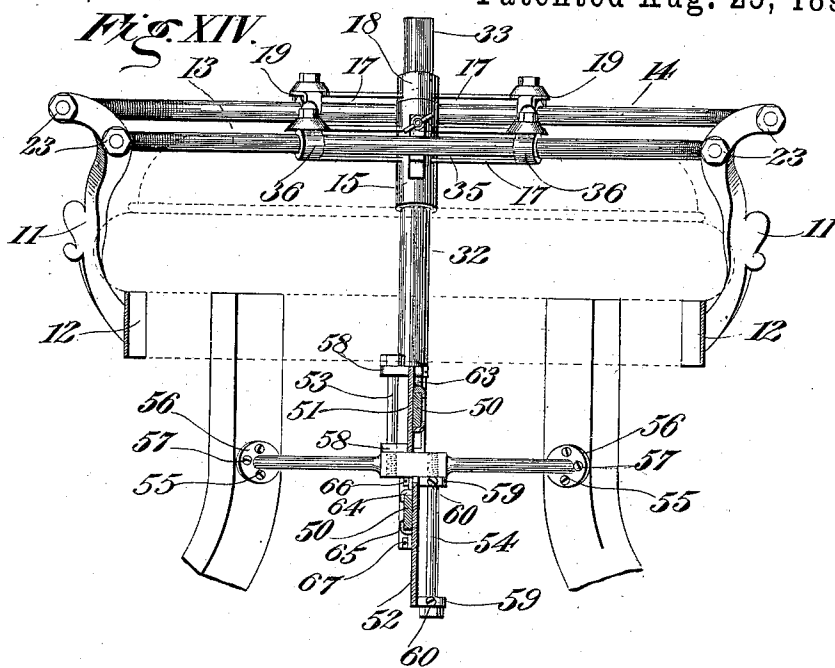
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Witnesses

M. C. Fowler
Louis G. Julihn

Inventor

James M. Dow

By Joseph L. Atkins
Attorney

UNITED STATES PATENT OFFICE.

JAMES M. DOW, OF OGDENSBURG, NEW YORK.

PHOTOGRAPHIC POSING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 566,382, dated August 25, 1896.

Application filed March 14, 1895. Serial No. 541,751. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. DOW, of Ogdensburg, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Photographic Posing-Chairs, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in chairs especially adapted for use in photographic galleries; and its object generally is to produce a chair embodying such a construction that it may be readily adjusted to comfortably and properly support in various positions and poses the body and head of a subject.

A further object of the invention is to adapt the chair, when empty, to be moved about a room, or to be automatically fixed as the subject steps to the chair to sit down or rises out of it to retire from it.

To the attainment of the foregoing and other objects, as will more clearly appear from the specification and claims, the invention consists in certain construction, arrangement, and adaptation of the several parts which constitute it.

In the accompanying drawings, Figure 1 is a side elevation of my chair, showing the head and back rests in certain positions in full lines and showing them respectively adjusted to another position in dotted lines. One rear leg in this figure is broken away to completely disclose the mechanism of the chair. Fig. 2 is a top plan view of the mechanism shown in Fig. 1, with the seat of the chair indicated only in dotted lines. Fig. 3 is a top plan view of the head-rest transverse sliding frame and a section of its track. Fig. 4 is a vertical sectional view of the same, showing the head-rest-supporting frame in full lines. Fig. 5 is a similar view showing the back-rest-supporting frame in full lines. Fig. 6 is a perspective view of a rest-clamp shown as applied to the head-rest stem. Fig. 7 is a group illustrating the component parts of that clamp. Fig. 8 is a perspective view showing another form of clamp shown in the drawings as applied to support the back-rest stem. Fig. 9 is a side elevation of the clamp shown in Fig. 8. Fig. 10 is a central vertical section of the clamp shown in Fig. 6, some of the

parts being shown in elevation. Fig. 11 is a top perspective view of the head-rest proper. Fig. 12 illustrates in a group the component parts of the same. Fig. 13 is a bottom plan view of the chair-platform. Fig. 14 is a section on the line $z z$ of Fig. 1, looking in the direction of the arrow. Fig. 15 is a section on the line $x x$ of Fig. 2. Fig. 16 is a similar view on the line $y y$ of Fig. 2.

Referring to the figures on the drawings, 1 indicates a chair, which may be of any suitable and ordinary construction, preferably having a round seat.

2 indicates a platform mounted upon rollers 3 and preferably provided upon its upper surface with cups 4, adapted to receive the legs of the chair and hold it immovable.

5 indicates a movable step hinged to the front of the platform, as indicated in Fig. 13 at 6, and yieldingly sustained in a slightly-elevated position that is slightly upwardly inclined from the platform.

7 indicates a medial supporting-bar firmly secured to the bottom of the platform, projecting toward the end of the step, and carrying upon its forward end a curved flat spring 9, which yieldingly supports the step in the manner above described.

10 indicates a stop-foot firmly secured to the bottom of the step and adapted, when the step is depressed by sufficient weight, to press against the floor upon which the platform rests, and acting as a brake to prevent the moving of the platform upon its rollers. By this means I secure a readily-movable chair, which is automatically checked or fixed in its position whenever a person stands upon the step either for the purpose of sitting in the chair or in the act of rising from it.

11 indicates each of a pair of brackets rigidly secured, as by a screw-plate 12, to the opposite sides of the chair-seat, near its rear part, as is clearly illustrated in Figs. 1 and 2 of the drawings. These brackets are designed to fixedly carry between them the tracks 13 and 14, which, although one is larger than the other, are designed to firmly support the back and head rest transverse sliding frames 15 and 16. These transverse sliding frames are adjustably movable to one side or the other of the chair upon their tracks to bring the rests which they carry to that particular part

of a subject which may require support. These tracks are made of different sizes in order that they may be separated by a sufficient distance to allow the free movement of each of the transverse sliding frames independently of the other. These transverse sliding frames are preferably made of brass or other suitable metal, and consist, preferably, of wings 17 of equal lengths springing from a central vertical sleeve 18. The wings terminate in cap-plates 19, which are pierced, respectively, to receive the screw-threaded stem 20 of gimbals, whose rings 22 surround the track, and which, while they permit the free transverse movement of the sliding frame, also admit of its being turned freely upon the track as an axis, and render the parts which connect the frame to the track so nicely adjustable as to prevent binding at any point. The tracks are screw-threaded at their ends and are, when slipped into place in the brackets, secured by the nuts 23. It will be perceived from this remark that the gimbal-rings may be readily slipped upon the tracks before they are set in place, and that thereafter they are firmly secured within the limits of the track.

It has been explained how each of the sliding frames is movably secured to its track. In practice it is necessary, after having adjusted it, to fix it in a certain position. For this purpose I employ suitable sliding-frame-fastening mechanism that is adapted to secure it firmly in any desired position upon its track. I have shown two forms of mechanism for accomplishing this result, one applied to the head-rest sliding frame and the other to the back-rest sliding frame, although their use is not necessarily confined to the one or the other.

Referring to that form of fastening mechanism which is shown as applied to the head-rest sliding frame, and which is illustrated in detail in Figs. 3 and 4 of the drawings, 24 indicates a compression-plate which is mounted before a longitudinal slit 25 in the sleeve, and which is carried between the sliding frame and its track. It is preferably provided in its upper end with lugs 26, which are wide enough apart to easily receive the track, and which, when in position, serve to prevent the longitudinal movement of the plate. It may be also provided with a curved end 27, which, riding upon a projection 28, extending from below the slit 25 in the sleeve, supports the compression-plate in an upright position, and serves as a sort of loose hinge to permit the slight movement which the plate is required to make. The compression-plate is provided with lateral springs 29, that bear against the wings of the sliding frame and tend to urge the compression-plate toward the sleeve and away from the track. It is also provided at its upper end with a pin 30, that carries a cam-lever 31. The cam of this lever enters the upper end of the slit 25. The cam-surface turns within the bore of the sleeve or out of

it, so as to firmly secure or release a rest-rod support 32 or 33, as desired. An intermediate spring bearing-plate 34, which is fastened at its lower end to the inner side of the compression-plate, and which is interposed between the cam and the rest-rod support, is designed to prevent wear upon the latter.

Referring to that fastening mechanism which is shown in Fig. 5 of the drawings, and which is illustrated elsewhere as applied to the back-rest sliding frame, the mechanism is substantially the same in effect, the compression-plate bearing directly against the rest-rod support instead of the sleeve, and instead of a cam-lever an abutment thumb-screw 35 is substituted. It may be observed in this connection that the parts by which the ends of the wings and sliding frames are secured to the track in the back-rest are not gimbals, as in the head-rest frame, but simply eyelets 36, which in a track-circle of greater diameter may be substituted for the more complicated gimbal connection employed in connection with the other track.

The rest-rod supports 32 and 33 are preferably made of iron or steel tubes having screw-caps 37 and abutment thumb-screws 38, by which the head-rest rod 39 and the back-rest rod 40, which telescope into the rest-rod supports, may be respectively secured in any desired vertical adjustment.

The lower end of each of the rest-rod supports is screwed into a thimble 45, that is connected by an arm 46 of suitable length to a disk hinge-plate 47, which is hinged by a screw-pintle 48 to a small hinge-plate 49, in which each of the clamp-levers 50 terminates. These clamp-levers are preferably two in number and are movably carried in swivel clamp-frames 51 and 52 by pivot-rods 53 and 54 above and below a clamp-frame support 55. The clamp-frame support may be made of any suitable shape, as, for example, that clearly illustrated in Fig. 14 of the drawings, in which it is shown as provided with terminal screw-plates 56, through which screws 57 are inserted to secure it firmly to the inside of the rear legs of the chair. The office of each of the frames is substantially the same, and their shape is similar, but the axis of each is located so as to bring the lower end of each of the rest-rod supports respectively at the proper distance from its respective clamp-frame. The clamp-frame 51, which serves the back-rest support or that rest-support which, as illustrated, is nearer to the body of the chair than the other, is pivoted near its middle part in perforated lugs 58, while the other clamp-frame 52 is pivoted in lugs 59, located at its extremity. Abutment-screws 60, entered into the sides of these respective lugs, are adapted to prevent any looseness of the bearing parts upon the pivot-rods.

Each of the clamp-frames is provided with a guide-mouth 61, which is designed to receive a clamp-lever and also to receive and

guide the free end of a spring 62, that is secured, as by screw 63, to each of the clamp-frames. A pair of clamp-shoes 64 and 65 are pivoted, as indicated at 66 and 67, to each of the clamp-frames, and the two are of such a distance apart as to receive a clamp-lever and hold it against any ordinary tendency to move longitudinally when the clamp-lever is actuated by the spring 62.

The clamp-shoes are eccentrically pivoted, and the longer end of each one of a pair extends in one direction and that of the other in the other direction. The pivot-screws 66 or 67 of each pair are located out of line, as illustrated, and in such relative positions that one end of one of the shoes extends slightly beyond the line of pivotal screw of the other shoe. Consequently a tendency to move the clamp-levers vertically in one direction is positively resisted, while a tendency to move them in the other direction, which is in the direction of the resistance of the springs, tilts one of the shoes upon its pivot (the spring acting in this instance as a fulcrum for the lever to turn upon) and releases the clamp-lever from the engagement of the other shoe. At the same time the clamp-lever bears upon the other shoe only at one point of its surface. The frictional resistance to the movement of the clamp-levers is therefore reduced to a minimum, which can be readily overcome by a slight tendency toward longitudinal movement of the clamp-lever in either direction. In practice, therefore, an operator, by pulling upwardly upon either of the rest-rod supports, operates the clamp-lever to which it is hinged in the manner above described and releases the clamp-lever from the grip of the clamp-shoes. Thereupon, still holding the rest-rod support in the elevated position and pushing or pulling upon it, he may cause the clamp-lever to slip through the shoes in either direction and adjust the angle of the rest-rod support and the rod which it carries as he pleases. Upon releasing the rest-rod supports the spring 62 immediately acts upon the clamp-lever, depressing the rest-rod support and fixing its position by the clamp of the shoes upon the clamp-lever.

The method and manner of the operation as regards either of the rest-rod supports are substantially the same.

Having now described mechanism for transversely adjusting the rest-rods to any desired position, and mechanism for adjustably fixing the rest-rods at any required angle, I shall proceed to describe the mechanism for locally adjusting the head-rest and back-rest upon its respective rod.

68 indicates the stem of my head-rest, and 69 the stem of the back-rest. The latter may be of any suitable shape, as, for example, a padded disk, as illustrated. Each of these rests is preferably vertically and horizontally adjustable, and I prefer, for convenience, to provide mechanism for holding them which, when the proper adjustment shall have been

made, may be fixed by a single screw or lever. I have illustrated two forms of clamp-heads for this purpose, one of which, for facility of description, I shall call the "head-rest" clamp-head and the other the "back-rest" clamp-head, although neither is exclusively applicable to the particular office that its name would otherwise imply.

Referring to Figs. 6, 7, and 10, in which that mechanism which I will call "head-rest clamp-head" mechanism is illustrated, 70 indicates a shank of a clamp-body that is longitudinally bored, as indicated at 71, to receive the reduced end 71^a of the rest-rod 39. 72 indicates one of the sides of the clamp-head, which is permanently carried upon the shank thereof and may be cast integral with it. 73 is the movable side of the clamp-head, which is the counterpart of the fixed head, which is provided with an opening 74, through which a stud-bolt 75 is entered. The stud-bolt is adapted to receive a thumb-nut 76, by which the movable side piece may be securely fastened in place. A recess 77 is provided upon the side of the shank, which receives the movable side piece, and a transverse bore 78 communicates through it with the longitudinal bore 71. A lug 79 projects from the lower end of the movable side piece and is adapted to enter the transverse bore, so that when the side piece is securely fastened in place by the thumb-nut 76 this lug will press firmly against the reduced end 71^a of the rest-rod and prevent the rotation of the clamp-head upon it. 80 indicates oscillatory jaws provided with flanged hubs 81, by which they are movably secured in opposite sides of the clamp-head. They are provided in their upper part with corresponding transverse partially cylindrical grooves 82, adapted to receive and grip the stem 68 of the rest. The aperture 74 in the movable side piece is of sufficient size to admit of a slight tilting motion of the movable side piece. Consequently when the stem 68 is inserted between the grooves of the jaws 80, the lug 79 having been entered in the transverse bore of the shank, and the thumb-nut 76 is screwed into place, the movable side piece adjusts itself upon the stud-bolt, so as to equally clamp under the pressure of the one nut the stem and the rest-bar, thereby preventing the movement of the clamp-head around the latter and rendering the stem of the rest immovable.

Referring to Figs. 8 and 9, in which what I prefer, as above indicated, to call the "back-rest clamp-head" is illustrated, the movable side carries a single fixed jaw 83, while the lug 79 is dispensed with. The recess 77 is made deep enough to expose the reduced end of the rest-rod directly to the inner surface of the movable side, so that the thumb-nut 76 simultaneously clamps the stem of the rest and the head of the rest-rod with like effect, as in the clamp-head above described. In this form of clamp-head the movable side is shown as a circular disk, corresponding in

this particular to the fixed side. The aperture 74 is centrally located, so that the movable piece may be turned upon the stud-bolt as a pivot, and thereby readily adjust the position of the rest-stem that is held by the jaw 83.

In Figs. 11 and 12 of the drawings I have illustrated a head-rest in detail. The relation of the parts to the remaining structure is shown in Fig. 1 of the drawings. Referring to the parts of this mechanism, 68 indicates a head-rest stem which is provided upon one end with a flat head 85, that is provided with a square aperture 86 to receive a square-shanked bolt 87. 88 indicates a head-rest clamp-plate, to which are pivoted, as by screws 89, head-supports 90. The head-supports are carried exclusively by the clamping-plate. The clamping-plate is provided with an aperture 91 to receive the end of the bolt 87. 92 indicates a thumb-nut which screws upon the end of the bolt and fixedly secures the clamping-plate and head-supports in any position to which they may be adjusted. It should be observed in this connection that a large variety of movements is attainable in consequence of the head-supports being independently carried upon the clamp-plate and the clamp-plate being susceptible of rotary motion upon the bolt 87.

In practice the ends of the head-supports are carried between the clamping-plate and the head 85, so that pressure exerted by the thumb-nut upon the clamping-plate will at once securely fasten that plate and the head-supports into position.

What I claim is—

1. In a posing-chair, the combination with the chair-frame, a vertically-movable rest-support, and a clamp-lever hinged thereto, of a vertically-pivoted clamp-frame, and horizontally-pivoted shoes upon the clamp-frame designed to engage the opposite sides of the clamp-lever, said shoes being pivoted out of vertical line with each other whereby the clamp-lever may be tilted in one direction and released, but will be prevented from being tilted in the opposite direction, substantially as specified.

2. In a posing-chair, the combination with the chair-frame, a vertically-movable rest-support, and clamp-lever hinged thereto, of a clamp-frame, a pair of pivoted clamp-shoes engaging the opposite sides of the clamp-lever and pivoted one in advance of the other whereby the tilting of the clamp-lever in one direction will release it and an attempt to move the same in the opposite direction will secure said clamp-lever against longitudinal movement, and yielding mechanism exerting a pressure upon the clamp-lever in the proper direction for locking the clamp-lever between the clamp-shoes, substantially as specified.

3. In a posing-chair, the combination with the chair-frame, a vertically-movable rest-support, and a clamp-lever hinged thereto, of a vertically-pivoted clamp-frame, a horizon-

tally-pivoted shoe and spring carried by the clamp-frame, and bearing against the clamp-lever upon one side, and a second clamp-shoe horizontally pivoted upon the clamp-frame upon the opposite side of the clamp-lever and intermediate of the first-named clamp-shoe and spring, substantially as specified.

4. In a posing-chair, the combination with the chair-frame, vertically-movable rest-supports, and clamp-levers hinged thereto, of swivel clamp-frames having a common axis, and a plurality of clamp-shoes upon each of the clamp-frames, the clamp-shoes upon each of the clamp-frames respectively, being pivoted to said clamp-frames upon opposite sides of the common axis, substantially as specified.

5. In a posing-chair, the combination with the chair-frame, vertically-movable rest-supports, and clamp-levers hinged thereto, of a plurality of swivel clamp-frames, one of which is pivoted intermediate of its ends, and the other of which is pivoted at its extremity, the pivotal axis of the clamp-frames being in vertical alinement, and clamp-shoes upon the clamp-frames, substantially as specified.

6. In a posing-chair, the combination with the chair-frame, a track, and an adjustable sliding frame provided with a collar, of a rest-support movable within the collar, a hinged clamp-lever, and clamp-frame swiveled beneath the chair, parallel eccentrically horizontally pivoted clamps upon the clamp-frame, and a spring tending to compel the operation of the clamps against the clamp-levers, substantially as specified.

7. In a posing-chair, the combination with the chair-frame, a vertically-movable rest-support, and a transversely-sliding frame movably carrying the same, of a track carrying the transversely-sliding frame, and fastening mechanism for simultaneously locking the rest-support in the sliding frame and the sliding frame upon the track, substantially as specified.

8. In a posing-chair, the combination with the chair-frame, a vertically-movable rest-support, a sliding frame carrying the same, and a track, of a spring-actuated compression-plate operatively fixed between the rest-support and track, and mechanism operatively connected to the compression-plate and designed when actuated to impinge against the rest-support and simultaneously secure the same and operate the compression-plate, substantially as specified.

9. In a posing-chair, the combination with the chair-frame, a track, a vertically-movable rest-support, and a transversely-sliding frame carrying the same, of a slit in the sliding frame opposite the track, a compression-plate carried in the slit in the frame, and a lever carried upon the compression-plate and working in the upper part of the slit, substantially as specified.

10. In a clamp-head for a posing-chair, the combination with a fixed side provided with a jaw, a longitudinally-bored shank, and a

transverse recess, of a movable side provided with a jaw and a lug designed to enter the transverse recess in the shank of the fixed side and to impinge against a rest-rod inserted in said shank, and mechanism for clamping the movable side to the fixed side, substantially as specified.

11. In a clamp-head for a posing-chair, the combination with a fixed side provided with an oscillatory jaw and a longitudinally-bored shank provided with a transverse recess, of a movable side provided with an oscillatory jaw and a lug designed to enter the recess in the shank, and mechanism for clamping the movable jaw to the fixed jaw, substantially as specified.

12. The combination with a head-rest stem, and a flat head provided with a square aperture, of a square shank-bolt projecting through the aperture, a head-rest clamp-plate pivotally supporting a plurality of head-supports, a medial round aperture in the head-rest clamp-plate for the reception of said bolt, and a thumb-nut screwing upon the bolt and designed to fixedly secure the clamping-plate, and head-supports in any desired position, substantially as specified.

13. In a posing-chair, the combination with the chair-frame, a track, a vertically-movable rest-support, a transversely-sliding frame carrying the same, a clamp-lever hinged to the rest-support, and a clamp for controlling its longitudinal motion, of a slit in the sliding frame opposite the track, a compression-plate

located in the slit, and mechanism carried upon the compression-plate and adapted simultaneously to press against the rest-support and the track to lock the rest-support in the sliding frame, and the sliding frame upon the track, substantially as set forth.

14. The combination with the chair-platform, of rollers and movable step, of a yielding support for the movable step, and a stop-foot adapted to be brought into contact with the floor and prevent the movement of the platform by weight superimposed upon the step, substantially as and for the purposes specified.

15. In a posing-chair, the combination with the chair-frame, vertically-movable rest-supports and clamp-levers hinged thereto, of swivel clamp-frames having a common axis, a plurality of eccentrically-pivoted clamp-shoes pivoted out of alinement upon each of the clamp-frames, the clamp-shoes upon each of the clamp-frames, respectively, being pivoted upon opposite sides of the common axis and upon the opposite sides of the clamp-frames, respectively, and springs tending to compel the operation of the clamp-shoes against each of the clamp-levers, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

JAMES M. DOW.

Witnesses:

F. R. STRONG,
A. B. JAMIESON.